The Determinants of Outward Foreign Direct Investment From ASEAN

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by

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Thesis Summary

The thesis is concerned with the trends, patterns and determinants of outward foreign direct investment from ASEAN. The research consists of three empirical studies. The first study investigates the determinants of ASEAN outward foreign direct investment (FDI) and the extent to which the general motives of outward FDI can explain the phenomenon in the four chosen ASEAN countries (Malaysia, Singapore, Thailand and Indonesia) during the period of 2001-2012. Our results demonstrate that market-seeking is the main motivation of outward FDI from ASEAN. We also confirm that host country characteristics play a vital role in investment decisions. Furthermore, after dividing the data into two time-periods, the results indicate that different location determinants and motivations apply over time.

The second study aims to explore the choice of outward FDI location made by ASEAN. More importantly this study examines the location choice based on the perspective of regional characteristics and provides explanations in relation to the motivation of FDI. The challenge lies in the pursuit to arrange location-specific decisions into a uniform theoretical pattern. In general, the results support our previous findings that revealed the importance of market characteristics in determining outward FDI from this region. The findings also show that ASEAN outward FDI is mostly intra-regional. Among ASEAN, only Singapore is actively engaging in extra-regional investment. Notwithstanding the importance of other variables in context, corruption appears to display an interesting finding. We found out that corruption did not deter investment from ASEAN but rather has a positive impact.

The third study attempts to explore the determinants of outward FDI from a firm-level perspective. Using firm-level panel data which cover 9331 firms in ASEAN-4, we estimate the model that helps us to derive to the conclusion. Our results suggest that the ability to demonstrate strong financial viability is important for the firm to raise investors' confidence and obtain financial aid. We also discovered that firm size and firm ownership does not influence outward FDI because most of ASEAN-4 outward FDI is intra-regional and that embedded knowledge is less important due to the familiarity of the market.

Key Words: outward foreign direct investment, determinants, location choice, firm-level analysis, ASEAN

To my Creator, my parents, my kids, my family and my most significant other

Declarations

This thesis is submitted to the University of Warwick in support of my application for the degree of Doctor of Philosophy. It has been composed by myself and has not been submitted in any previous application for any degree.

The work presented (including data generated and data analysis) was carried out by the author. Parts of this thesis have been presented by the author at:

1. 44th Academy of International Business UK & Ireland Chapter (AIB-UKI) Conference and 6th Reading International Business Conference at Henley Business School, University of Reading, United Kingdom on 6-8 April 2017

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Abbreviations

ASEAN	Association of South East Asian Nations
AEC	Asean Economic Community
AFC	Asian Financial Crisis
CLMV	Cambodia, Lao PDR, Myanmar, Viet Nam
EU	European Union
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GDP	Gross domestic product
GDPP	Gross domestic product per capita
GFC	Global Financial Crisis
GLC	Government-linked Company
IB	International Business
IDP	Investment Development Path
LDC	Less developed country
M&A	Merger and acquisition
MNE	Multinationals enterprise
RIA	Regional Integration Agreement
SME	Small and medium-sized enterprise
SOE	State-owned Enterprises
UNCTAD	United Nation Conference on Trade and Development

CHAPTER 1

1 Introduction

Over the last two decades, international business (IB) activities have played an important role in spearheading global economic development, especially among emerging countries. Extensive academic literature emerged to unveil the many potential areas pertaining to the topic. Among the various economic activities, foreign direct investment (FDI) has become the key driving force of globalisation, facilitating growth and development and being a major source of external funding, especially among the emerging countries (UNCTAD, 2001, 2007). The United Nations Conference on Trade and Development (UNCTAD) defines FDI as "*an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor. Further, in cases of FDI, the investor´s purpose is to gain an effective voice in the management of the enterprise".* The study of FDI is normally concerned with either inward or outward flows with the focus given to the world's developed economies. According to the definition by the World Bank, inward FDI is defined as "*direct investment made by non-resident investors in the reporting economy*" while outward FDI means "*direct investment made by the residents of the reporting economy to external economies*." Until very recently, scholars' attention has been inclined only towards the study of inward FDI, with less attention given to its outward flow (Gammeltoft and Kokko, 2013). This research will focus on how outward FDI from emerging economies, in particular from Southeast Asia, contributes to enhancing macro and micro economic capabilities and resources in supporting the country's development at regional, national and firm level. The empirical focus of this study is directed towards identifying the motivation and determinants of outward FDI from four Southeast Asian countries, namely Malaysia, Singapore, Thailand and Indonesia. The primary reason for conducting this research is to augment the limited and sparse literature on outward FDI

from small emerging economies. Generally, prior studies in this area are mainly descriptive and qualitative in nature, with less attention given to econometric analysis. In contrast, this thesis tests the empirical specification of outward FDI using panel based data techniques. By completing this study, we hope to gain better understanding of the determinants of outward FDI from ASEAN by providing a rigorous theoretical and methodological approach.

This introductory chapter begins by providing background information and motivation of the research in order to give an overview of the study. Section 1.1 explains the setting and motivation of the research by discussing the current trends of FDI in ASEAN. Section 1.2 briefly discusses existing FDI theory that will be used in the following empirical chapters. Based upon the motivation and research gap identified in sections 1.1 and 1.2, we formulate the study's research questions in section 1.3. Section 1.4 discusses the research methods used and section 1.5 presents key findings from the empirical chapters and the main contributions of the study. Lastly, section 1.6 provides the structure of the thesis.

1.1 Research Setting and Motivation

In 2014, one-third of global outward FDI flows came from Asia, which UNCTAD recognised as the world's largest investor region (UNCTAD, 2015). The significant factor that contributes to this phenomenal achievement comes from the surge of outward FDI from Asia's emerging economies including South East Asia. Generally, the South East Asian countries are physically small as compared to other Asian countries, but they have become an important source of outward investments to many other emerging economies. In 2013, Southeast Asia recorded a massive USD 56.36 billions of FDI outflows, almost nine times the amount recorded in 2000 (UNCTAD, 2015). South East Asian countries are best represented by their regional intergovernmental association, the ASEAN. The Association of Southeast Asian Nations (ASEAN) was established on 8th August 1967 after the signing of ASEAN Declaration in Bangkok, Thailand by the five founding nations of ASEAN, namely Malaysia, Indonesia, Singapore, Thailand and Philippines. To date, there are ten members of ASEAN following the inclusion of Brunei (7th January 1984), Viet Nam (28th July 1995), Lao PDR, Myanmar (23rd July 1997) and Cambodia (30th April 1999). ASEAN's principal aims include fostering economic growth, protection of regional stability and sociocultural evolution. As individual countries, ASEAN member states may be small, but as a regional group, they cover a land area of 4.4 million square kilometres with a combined population of approximately 628 million people, making it the sixth largest world economy after the USA, China, Japan, France and Germany (The ASEAN Secretariat, 2013). Among ASEAN member states, Singapore and Malaysia have been listed in the top 20 sources of outward FDI in Asia alongside bigger names such as Hong Kong, China and Korea (UNCTAD, 2015).

There are many contributing factors that have shaped the new trends of outward FDI from ASEAN, an important one being the proliferation of mergers and acquisitions (M&As) in the region (Chongvilaivan and Menon, 2017). Numerous studies have revealed that the growing share of outward FDI from ASEAN significantly affects the ongoing process of shifting the patterns of FDI and global industrial restructuring (Masron and Shahbudin, 2010). Initially, ASEAN was a recipient of FDI due to its competent human capital, cheap and abundant natural resources and strategic location

in Asia. From the beginning of the 2000s, China and India have emerged as the new low-cost production locations and have attracted FDI from around the world. Meanwhile in Southeast Asia, the cost of labour in Thailand and Malaysia has increased, making them less attractive to investors. These recent developments indicated a revision of conventional FDI strategies within the member states in particular and the region in general. To keep abreast of the fast pace of globalisation and to maintain their relevance in the international business arena, ASEAN exhibits a shift in FDI strategies by inclining towards outward FDI.

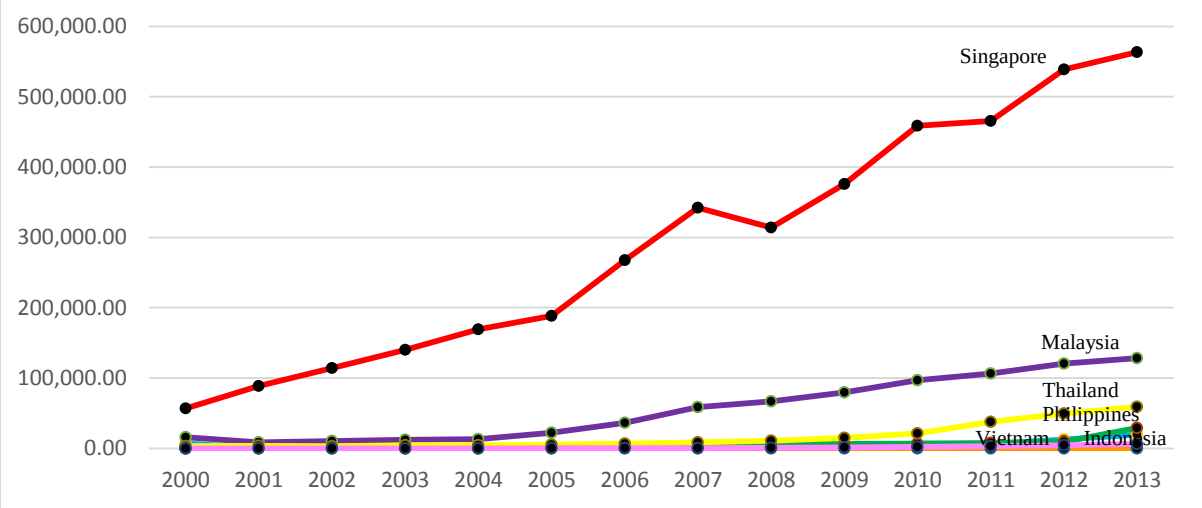
Outward investment from ASEAN portrays a similar pattern with FDI from other emerging economies. Outward FDI starts regionally among neighbouring countries before it expands to the rest of the world (Aykut and Goldstein, 2006). Escalation of intra-regional FDI within ASEAN can be attributed to a strong relationship between the member states who share a common philosophy in fostering regional growth. Intra-ASEAN FDI has been identified as the key contributing factor to the surge of outward FDI (The ASEAN Secretariat, 2013). The strength of this relationship was witnessed during the global financial crisis (GFC) in 2008-2009, when outward FDI from ASEAN remained robust. Subsequently, in 2011, intra-ASEAN outward investment reached its peak at USD 26.3 billions, almost fifty percent of the ASEAN total outward FDI.

As mentioned earlier, the growth of intra-ASEAN outward FDI in the 2000s was partly triggered by the sluggish inward investment to the region caused by the emergence of China and India as a new low cost production locations and the global financial crisis, which was partially cushioned by the creation of ASEAN Free Trade Area (AFTA) in 2010. The formation of AFTA was primarily aimed to eliminate, within ASEAN, tariff and non-tariff barriers in order to stimulate FDI within the region. This can be observed from the exponential increase in direct investment from ASEAN's leading investors, such as Singapore, Malaysia and Thailand to other ASEAN countries, such as Cambodia, Lao PDR and Viet Nam. The details of this strategic shift will be discussed in Chapter Three when we examine the location determinants of outward FDI from ASEAN.

The Asian Financial Crisis (AFC), which started in Thailand in July 1997 had caused financial shock to the region. This crisis spread aggressively and resulted in most of the Southeast Asia countries devaluating their currencies, stock market values and asset prices fell and there was a surge in private debt. While the region as a whole was affected, the most adverse impact was on Thailand and Indonesia. The crisis and its reverberation effects took them almost to the brink of bankruptcy. Tough austerity measures were taken by ASEAN and the member states to consolidate the economic foundations and to rebuild economic growth. Some countries introduced capital control measures to reduce capital outflows, while others turned to the International Monetary Fund (IMF) for financial assistance. Eventually, currency depreciation boosted price competitiveness, thus encouraging exports. This provided a boost to the ASEAN recuperation process. As a result, ASEAN managed to absorb the turbulence and sustain the economy.

Although ASEAN faced economic difficulties in the late 1990s, outward FDI from ASEAN gained momentum in the early 2000s with annual outward FDI increasing from 243 billion USD to 495.7 billion USD, accounting for 10.6% of the world's outward FDI (The ASEAN Secretariat, 2012). With a growth rate of about 22% per annum since 2006, ASEAN evolved from a major FDI recipient into an important source of investment regionally and globally.

Figure 1-1 ASEAN Outward FDI (stocks) 2000 - 2013



Source: UNCTAD, FDI database

The level of participation in outward FDI activities between ASEAN member states differs in terms of mode and volume. Prominent participation comes from four countries namely Malaysia, Singapore, Thailand and Indonesia (see Figure 1.1). Even though the Philippines and Viet Nam have shown remarkable development in their outward FDI activities since 2006 (The ASEAN Secretariat, 2012), there is limited data to enable the inclusion of these two countries in the present study. For other ASEAN countries, the involvement in outward FDI is insignificant due to the lack of a strong private sector (The ASEAN Secretariat, 2012) and capable companies. Singapore remains the largest investor from ASEAN, followed by Malaysia and Thailand.

Initially, ASEAN economies mostly depend on the agricultural and manufacturing sectors. However, Malaysia, Thailand, and Indonesia are becoming involved in more advanced sectors, for example, resource extraction, services, finance and healthcare and targeting other emerging countries such as the expansion of Pertamina (Indonesia) to Rusia and KPJ Healthcare (Malaysia) to Saudi Arabia. The expansion of the resource extraction sectors is due to several factors, which include 1) the emerging of national oil companies from this region, such as Petronas (Malaysia) and Pertamina (Indonesia), that are able of competing with the other large oil companies; 2) easy access to natural reserves in emerging countries; and 3) the oil and gas companies leveraging their core competencies and technology abroad to increase their global presence in the sector (Battat and Aykut, 2005). Besides resource extraction sectors, this region is also the world's biggest exporter of electronic integrated circuits, transistors, computers, hard disks and many other electronic products. However, agriculture is still the major industry that supports the region's growth, especially in palm oil, rubber and production of other agricultural crops.

The ASEAN Investment Report (2012) outlined four main driving forces that encourage outward FDI from ASEAN. The factors are market seeking, efficiency seeking, strategic asset seeking and resource seeking (Dunning, 1977). Market-seeking FDI relates to companies securing markets abroad, diversifying their revenue base, following customers and seeking for a new market. Market-seeking FDI is the most common strategy adopted by multinationals from emerging countries especially in the earliest stage of internationalisation (UNTAD, 2006). Initially, market-seeking investment involves neighbouring countries or countries that possess similar

characteristics in relation to psychic distance. According to Johanson and Vahlne (1977), "psychic distance is defined as the sum of factors preventing the flow of information from and to the market" including factors such as differences in language, culture, political systems and industrial developments. Based on the Uppsala Model (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975), the initial market entry strategy is to the foreign market that is closest in terms of physic distance and subsequently to markets at greater distance. One of the significant market seeking outward FDI from ASEAN is by Axiata from Malaysia. Inspired by the low mobile telephone penetration in South and Southeast Asia and the view that this industry had already reached its maturity, Axiata with the tagline Advancing Asia, has aggressively expanded its business to neighbouring countries such as Indonesia, Sri Lanka, Bangladesh, and Cambodia. Operating under a different brand in each host country (Celcom in Malaysia, XL in Indonesia, and Dialog in Sri Lanka), most of the affiliates are either a joint-venture or wholly owned subsidiaries by way of acquisition. Axiata exhibits an example of a firm that ventured abroad to look for an external market that possesses similar characteristics with its own and to protect their home market from robust foreign competition (Dunning and Lundan, 1993; Markusen, 1998).

Resource seeking FDI is driven by the need to access resources which are not available in the home country, or only available at higher cost. Dunning and Lundan (1993) highlight three types of resource seeking FDI. First, those are the primary producers who move abroad to seek for physical resources which are not available locally, such as, metals, fuels, rubber, timber and food supplies. This type of FDI is driven by cost minimisation and security of a source of supply. One distinctive feature of this investment is that it involves significant capital expenditure, and once investment is confirmed, it is relatively location bound. The second type of resource seeking FDI comprises of those investors who seek low cost and well-motivated human capital. This kind of investment is normally undertaken by multinationals from manufacturing and services industries, which are more labour intensive. Thirdly, resource seeking FDI that is motivated by the pressure to acquire technological capability, management know-how and organisations skills. This kind of resource seeking FDI normally involves advanced sectors that are more technical and technologically inclined. Generally, different industries and different multinationals will have different motives for resource seeking. Taking Malaysia and Singapore for

example, because the size of the land area is limited, with a population of approximately 5.6 million (2016) and 3.1 (2016) million respectively, the demand for lands and labour is huge. MNEs' opportunity for growth in these countries is difficult, with saturated domestic markets and high labour costs, therefore, they have a strong motivation to expand abroad. Besides seeking for land and labour, MNEs from Singapore and Malaysia also seek to acquire technological capabilities as the need for technological advancement has become greater. For example, as the healthcare industries grow in both countries, MNEs seek to collaborate with other firms for sophisticated tools and techniques. MNEs from Thailand and Indonesia on the other hand, known for their concentration on agriculture and textiles, invest abroad especially in the less developed neighbouring countries to secure access to natural resources and low cost unskilled labour. Later in this study, we will discuss these matters in greater detail.

Dunning and Lundan (1993) elucidate that the motivation of efficiency-seeking FDI is to rationalise the structure of the established resource based or market-seeking investment in such a way that the investing firms can gain from the common governance of geographically dispersed activities. In other words, the investment is driven by the intention to enhance the value-adding activities geographically, in order to exploit the benefits of the availability of factor endowments, cultural proximity, institutional arrangements, demand patterns, economic policies and market structures in different countries. MNEs that engage in this type of FDI are usually well established, large and diversified firms with standardised products and established standard operating procedures. The decision to undertake FDI depends on the ability to balance spreading value-added activities into multiple locations and the costs of coordinating the activities across locations (Aarland, Davis, Henderson, and Ono, 2007). In other words, firms operate in multiple locations, placing different functions in different locations, where some functions are concentrated on and some functions are separated from the main physical location of a firm's production. There are two kinds of efficiency seeking FDI as highlighted by Dunning and Lundan (1993). The first kind is designed to exploit the advantages of abundant factor endowments with relatively low costs in the host countries. This is generally applicable to MNEs in labour intensive industries. While the prime activities, such as technology and information intensive value-added sections are located in developed countries, the labour and natural resource-intensive sections are concentrated in emerging or less developed

countries. A classic example of this type of FDI is Honda Motor Co. Ltd., a Japanese assembler of vehicles and manufacturer of car parts with headquarters in Tokyo, and plants in Indonesia, Malaysia, Thailand and the Philippines. Honda Malaysia produces constant velocity joints (drive shafts), Honda Thailand manufactures body and stamping parts, Honda Indonesia produces engine parts and Honda Philippines manufactures intake valves. The second kind of efficiency-seeking FDI is designed to take advantage of the economies of scale and scope, and of differences in consumer tastes and supplier capabilities. Essentially, efficiency-seeking FDI helps business diversification and can become more than a source of capital, creating new jobs with greater productivity and value. It can also lead to expertise and technology transfers, boosting R&D and economic upgrading in the process.

One motive for the MNE to engage in FDI is to promote its long-term objectives and advance its global competitiveness by exploiting other firms' market intelligence, technology know-how, management expertise or reputation. This is called strategic-asset seeking FDI. Unlike efficiency-seeking FDI which is motivated by cost exploitations and gaining marketing advantages over competitors, strategic-asset seeking FDI is undertaken to augment the acquiring firm's global portfolio of physical assets and to increase their human competency in order to strengthen the firm's ownership-advantage. This types of FDI is often undertaken by big conglomerates from developed economies, but recently some MNEs from emerging economies have made a huge leap by acquiring well-known firms such as Lenovo (from China) acquiring IBM's PC in 2005, and Tata Group (India) taking over Corus, the UK steel giant in 2007. This indicates that as global business competition becomes intense, the firm needs to align its strategic objectives to remain relevant.

This research is also motivated by the facts that outward FDI from ASEAN countries is only at the beginning stage. Therefore, more studies are needed to understand the integrated picture of outward FDI and to predict its potential future in ASEAN. By bringing in the experiences of ASEAN-4, known as the leading outward investors in this region, it is hoped that this thesis will be able to contribute to a more substantial observation of outward FDI in ASEAN. Since ASEAN countries do not equally participate in outward FDI, we are motivated to examine each participating country's outward FDI pattern so that the remaining ASEAN members can possibly

make use of the framework and findings. The lessons learnt from ASEAN-4's experiences will provide an informative insight into the essential policies and reforms that have enabled other ASEAN members or small emerging economies successfully to ride the waves of internationalisation.

The previous studies on outward FDI from ASEAN provide contrasting results, not only regarding the motives of internationalisation and choices of determinants but also regarding the choice of locations. For example Hiratsuka (2006) claimed that ASEAN outward FDI is more efficiency-seeking in nature, while Ismail (2009) argued that market-seeking primarily motivates ASEAN outward FDI. The absence of significant literature that analysed ASEAN as a single group also inspired this research. It is however, difficult to single out any theory or perspective that can easily explain all aspects of outward FDI behaviours in this region. As mentioned earlier, the difficulties in obtaining appropriate data from the member countries also contributes to lack of perspective on this area. On the other hand, the lack of consensus in theoretical frameworks of ASEAN outward FDI has resulted in a diverse body of empirical studies. First, the few studies of ASEAN outward FDI are conducted using macro-economic data and considered only a small number of explanatory variables in the attempt to establish a statistically significant relation between the variables and outward FDI (Ismail, 2009; Tan, Goh and Wong, 2016). Second, prior studies are almost exclusively conducted at the specific home country's level with no attempt to see the relationship between home and host country that may produce different results.

The inclusion of Singapore despite its classification as a developed economy is because of its uniqueness. Even with limited resources, a tight labour market and rising competition from other emerging markets beyond the region, Singapore has managed to become a business hub and promote ASEAN's strategic advantages. Singapore's outward FDI performance remains exceptional and is consistently ranked second in Asia after Hong Kong. Therefore, it is interesting to study the role of Singapore in fostering outward FDI from ASEAN and how it differs from or is similar to its neighbouring counterparts.

The extent of outward FDI from ASEAN-4, makes necessary a systematic empirical research investigation to identify the trends, determinants and outward investment patterns. This study is motivated by the fact that outward FDI from this region so far has attracted relatively little attention from researchers. As stated earlier, the outward FDI from this small sub-region has had a big impact, therefore, the main objective of this present study is to provide a systematic and robust empirical investigation of ASEAN outward FDI.

1.2 Overview of FDI Theories

This section outlines some of the theories that will be used later in this study. The details of each theory are presented as part of the theoretical underpinning of the subsequent empirical chapters.

The dynamism of international business activities and foreign direct investment over the last two decades has led to extensive research on this phenomenon. Initially, development of the theoretical and empirical study in this field started off as parts of the same story. With limited theoretical foundation, the earlier framework was mainly based on field studies in developed countries. Before the emergence of econometric studies in the 1960s and early 1970s, descriptive analysis dominated the field. Since the studies were mainly based on secondary data, there were various possible ways of interpreting it. Some scholars studied the business movement from a single country, or a group of home countries, into another single country or group of countries. Others considered the issues from the perspective of developed or emerging economies. The determinants were analysed using macro or micro economic factors in aggregated or disaggregated time series, cross-sectional, or panel databases.

Even though numerous studies have attempted to identify the determinants of FDI, there is no consensus among IB scholars as to what are the set of standard determinants that can explain FDI. Typically, the results are sensitive to the characteristics and setting of the study. The variables are highly responsive to any changes in the observed conditions (Chakrabarti, 2001). Therefore, it is accepted that

the phenomenon of FDI are complex, dynamic, multi-dimensional and can be investigated from macro, micro or firm-level perspectives.

In order to understand the determinants of outward FDI from ASEAN, it is important to understand the basic theories that lead to the behavioural and economic explanations of internationalisation activities. It is accepted in the international business literature that there are two main elements that are important to explain the phenomenon of internationalisation, these are the existence and growth of the investors, and the foreign value-added activities that they own and control. Therefore, any theory involving the determinants of internationalisation must be able to explain both the location of the value-added activities and who owns and controls them. In relation to that, there are two school of thoughts that govern the development of the theories. First is location of production, concerning the theory of international resource allocation related to factor endowments and capabilities. Secondly, the means of identifying the ownership of that production and how it was managed and organised, also known as the theory of economic organisation.

Traditionally (until the 1950s), the accepted paradigm in international business focused only on answering the question of "where" the production is located. Any issues pertaining to ownership and organisation were left unaddressed. This is because, the classical theories were mostly based on relatively few assumptions, such as, natural endowments were stationary across national frontiers but mobile within the country. Firms were assumed to engage in a single activity while investors were only seeking profit maximisation. Organisational strategies were limited to finding ways on how to minimise cost and optimise production, while institutional factors were assumed not to influence investment. One example of the theory is the Hecksher-Ohlin Model, which is based on a 2 x 2 x 2 general equilibrium framework with two countries (home and host), two factors of production (normally capital and labour) and two goods. Other factors, such as cost of transportation and marketing, were absent and countries only export products which they can produce using their resources and import products that were scarce to them. In simple words, neoclassical theory is based upon perfect competition which is an unreasonable assumption and in reality does not exist.

Over time, the theory received many criticism from international business scholars. Among the first to criticise the neoclassical theory were Hymer (1960) and Kindleberger (1969). Both authors claimed that, in order to explain foreign direct investment, structural market imperfection is important. They argued that some endogenous factors (such as product differentiation and managerial expertise) and exogenous factors (such as government interference and taxation) need to be considered when explaining foreign direct investment. Therefore, when consideration is given to imperfections in either the goods or factor markets, the possibility of alternative patterns of ownership or organisation transactions emerge.

In the international business field, the study by Hymer (1960) is considered a ground breaking contribution, which later became the pillar of many FDI frameworks. Hymer (1960) argued that cross border transactions are a medium to transmit a firm's knowledge and other assets (tangible or intangible) to establish production in a location abroad. Later, Vernon (1996) instigated the Product Life Cycle Theory, that explains the phenomenon using microeconomic concepts. According to him, besides immobile natural endowments and human resources, the capability of countries to engage in FDI also depends on the investors' competency to improve their assets or create new technology based products. Following these two contributions, scholars started to view FDI from a different perspective. For example, Caves (1971) focused on product differentiation, claiming that imperfect competition encouraged firms to differentiate their products and engage in horizontal FDI. While Knickerbocker (1973) asserted that firms display a "bandwagon effect" when they pursue strategy, following in the footstep of their rivals in exploring new ventures in new markets. Another important milestone was the development of internalisation theory by Buckley and Casson (1976). These authors claimed that markets for intermediate goods were imperfect and characterised by high risk and uncertainty which resulted in high transaction costs. Therefore, the decision to internationalise depends on certain factors at the industry, nation and firm-level.

One of the most accepted paradigms to explain firms' engagement in cross border value-added activities is the Eclectic Paradigm or OLI theory by Dunning (1980a, 1995). This paradigm provides a framework based on ownership (O), location (L) and internalisation (I) as an advantage to determine why and where the firm can

invest abroad. Such investment could be based on the three general motives of FDI which are resource-seeking, market-seeking, efficiency or strategic asset-seeking. In general, to address the level and structure of FDI activities, the OLI paradigm answers the "what is" rather than the "what should be" question. Another view suggested that international investment is an incremental process that resulted from continuous learning and accumulation of experience. The Uppsala Model (Johanson and Vahlne, 1977) posits that investors will diversify their investment into host countries with progressively higher levels of psychic distance[1]. Initially, MNEs start as a small business unit in a geographically and culturally proximate country before progressing into larger investments in the same country or to a distant country.

Concerning the level of analysis, given the unique characteristics of the investment decision and investors' strategic objectives, the analysis of determinants of FDI should ideally be examined at the firm level. Nevertheless, the trends of FDI suggested that investors normally choose a host country or region as a group and following the bandwagon effect (Knickerbocker, 1973), therefore the analysis can be undertaken at the country level. Another factor that supporting this argument is data availability. At present, most of the available aggregated data on FDI is on a country basis, such as databases from UNCTAD and the United Nation. However, as technology progresses and information becomes more accessible, new set databases at the firm level are increasingly available. Therefore, for the purpose of this thesis, two sets of data (country level and firm level) will be used to answer the main research questions on the determinants of outward FDI from ASEAN.

Lastly, we noticed the importance of institutional theory in enriching the understanding of a firm's FDI strategies. Previous studies affirmed that external institutional constraints hugely influence firms' strategic decisions in pursuing the internationalisation agenda (Brouthers, 2002; Yiu and Makino, 2002; Chan and Makino, 2007; Meyer, Estrin, Bhaumik and Peng, 2009). Oliver (1991) and Dacin, Kostova and Roth (2008) explored firms' responses to external institutional pressures and how these firms mitigated the issues. Institutional factors, also regarded as the

[1] Psychic distance can be defined as "the factors preventing or disturbing firms learning about and understanding of a foreign environment (Johanson and Vahlne, 2009).

"rules of the game" have significantly shaped the firms' strategies in the host economy (Peng, 2003; Wright, Filatochev, Hokisson and Peng, 2005). Scholars also argued that institutional frameworks differ between those in developed economies and emerging economies (Meyer and Peng, 2005; Wright, Filatotchev, Hoskisson and Peng, 2005; Gelbuda, Meyer and Delios, 2008).

In the last two decades, institutional theory has helped scholars to gain a deeper understanding of the interaction between institutions and organisations. Based on the notion of the "rules of the game", an institution is defined as a set of humanly devised constraints that structure human interactions (North, 1990). These include formal rules (laws and regulations) and informal constraints (cultures, norms, and customs). Scott (1995) identified three pillars to better understand institutions. First, the regulative pillar, focuses on formal rules systems and enforcement mechanism (North, 1990). Second, Scott (1995) explained that the normative pillar is defined as the means to pursue value ends. Third, the cognitive pillar, refers to the shared conceptions that constitute the nature of social reality and create the frames through which meaning is made (DiMaggio and Powell, 1983). These three pillars provide three "related but distinguishable bases of legitimacy" (Scott, 1995: 47). In summary, institutions are the rules of game in a society that shape the interactions among the members. Institutional change arguably shapes the way organisations evolve through time and the key to understand historical changes (North, 1990).

Institutions play an important role in business strategies to ensure the effective functioning of the organisation (Meyer, Estrin, Bhaumik and Peng, 2009). The growth of outward FDI from emerging economies has been facilitated by institutional factors including government support and regulatory policies. According to Luo, Xue and Han (2010), there are two views of institutional environment that prompt emerging MNEs to expand internationally. The first view considers the involvement of institutionally embedded constraints including limited property rights protection, weak judiciary and legal systems, and unexpected changes of policies. The other involves external support such as favourable government policies and stable economy. In this thesis, due to data availability, only few institutional variables were able to be analysed, including political risk, government stability, conflict and corruptions index.

1.3 Research Questions

The preceding sections have provided background information, motivations and some theoretical perspectives concerning outward FDI from ASEAN and provides the stimulus for the present research. Previous studies[2] on FDI from this region are broadly concerned with inward FDI and are mostly focused on individual member states, in contrast present study puts emphasis on obtaining empirical evidence on ASEAN outward FDI from three different perspectives.

The first empirical chapter of this study seeks to identify the host country characteristics that affect outward FDI from ASEAN and the determinants that motivates the investment. Extensive empirical literature has evaluated the various determinants of outward FDI from developed economies and prominent emerging economies[3], nonetheless there is no systematic econometrics work that has sought to link host country characteristics and determinants of outward FDI from ASEAN as a region. This study attempts to provide robust empirical evidence to identify macro determinants of outward FDI from ASEAN using panel based techniques.

The second empirical chapter builds on prior studies of FDI location choice from a regional perspective. Generally, studies on FDI location choices tend to focus on the country level, or if at the regional level, the emphasis is on a major regional player, such as, Brazil (South America) and South Africa (Africa). With the notion that MNEs have different capabilities and are subject to different investment motives, we investigate how ASEAN MNEs choose investment locations with regards to regional characteristics.

The final empirical chapter investigates ASEAN outward FDI from the firm-level. The availability of firm-level data allows us to investigate the microeconomic factors that determines FDI from this region. The prior empirical work that has investigated outward FDI from ASEAN using firm-level data is scarce, therefore, we

[2] The previous studies on FDI from this region will be discussed in detail in Chapter 2.
[3] For example: China and India

are motivated to provide an empirical examination as the baseline analysis for further research in this area.

We formulate the following research questions that correspond to each empirical chapter in this study.

Question 1 (Chapter 2)

What are the host countries' macro characteristics that are determinants of outward FDI from ASEAN?

Question 2 (Chapter 3)

What are the location determinants of ASEAN outward FDI from a regional perspective? To what extent do these factors influence the firm's decision to invest in a particular location (region).

Question 3 (Chapter 4)

What are the determining factors that motivate outward FDI from ASEAN MNEs?

The first two questions focus on how the outward FDI decision in ASEAN is associated with certain country and regional characteristics, whilst the third question is concerned with how individual firms perceive outward FDI. By completing this study, we hope to fill the gap in empirical analysis that is required to better understand outward FDI from ASEAN.

1.4 Research Methods

This study builds on relevant prior research in the area of outward FDI, including identifying the relevant determinants and location choice. Historically, the study of outward FDI has tended to focus on developed economies or large emerging economies, with negligible attention given to smaller emerging economies, such as the countries from Southeast Asia. Prior studies have mainly addressed the macro-level factors at either country-level or regional-level, using either qualitative or quantitative methods. Also, because of incomplete data, the impacting factors at the micro-level have received limited coverage.

In line with the advancement of data collection methods and techniques of analysis, this study incorporates models with an improved methodology to guide empirical estimation and ascertain credible findings. This study not only focuses on one single home country but is also extended to other member states within the same region, which makes it possible to provide an in-depth comparative analysis of the subjects. The use of a panel data approach in this study is appropriate because of its ability to recognise changing trends and variations in FDI and the factors that determine its growth.

From a research methods point of view, panel data offers various advantages over conventional cross section and time series analysis (Hsiao, 1985; Baltagi, 2013). Panel data makes it possible to take explicit account of individual-specific heterogeneity, thus minimising serious misspecification problems. By combining two dimensions (cross section and time series data), panel data provides more data variations, less collinearity and more degrees of freedom. It also allows for a complex behavioural model with minimum effects on aggregation bias. Lastly, given the dynamic nature of FDI, this research explores the topic by employing panel data with an overarching empirical methodology.

1.5 Summary of Findings and Main Contributions

This section provides a summary of findings and main contributions derived from this research.

The first empirical chapter examines how host countries characteristics influence outward FDI from ASEAN-4 from 2001 to 2012. This study is one of the first attempts to model ASEAN outward FDI based on the mainstream FDI theory. The use of widely accepted macroeconomic determinants in previous literature is to test the extent to which the theory which was established mostly from the study of developed countries' is applicable to small emerging countries such as ASEAN-4. Although there has been a number of empirical research studies on outward FDI from ASEAN, they have failed to include all relevant variables in a single study and focused on ASEAN-4. The reason behind this is ASEAN-4 represent small countries from emerging economies, this niche has previously been given less attention by scholars. In addition, the previous studies on ASEAN also examined FDI from the perspective of one member country or a combination of two members. This study explores the determinants of outward FDI from four member states which are the prominent participants of outward FDI from this region. The use of econometric analysis with panel database also adds a new empirical perspective to this study, when previously, the absence of reliable disaggregated data had deterred formal analysis. In addition to that the separation of data into two time periods (before and after global financial crisis) is used to investigate whether ASEAN outward FDI has changed in character over time.

After controlling for unobservable countries heterogeneity, some determinants are found to be consistent with findings in existing literature which affirms that FDI from ASEAN are motivated by market-seeking. This provides empirical support that outward FDI from ASEAN is seeking for natural resources except for Indonesia. The findings also suggest that the use of patents to proxy asset-seeking FDI produced insignificant results. In terms of institutional variables, host countries institutional environment is found to strongly shape ASEAN outward FDI. For example, corruption does not appear to be a major deterrent in relation to outward FDI. As measured conventionally, corruption is pointed out as a major impediment to FDI (Bénassy-

Quéré, Coupet, and Mayer, 2007; Stein and Daude, 2007), nevertheless in the case of ASEAN-4 corruption does not appear to be so. This finding corresponds to the earlier studies by Buckley et al., (2007) of Chinese outward FDI and Wood, Mazouz, Yin, and Cheah (2014) of South Africa, which infers that corruption does not deter FDI from emerging markets.

The first chapter is designed to answer the question of "why is the home market not enough" when considering outward FDI, while, the second chapter is focused on answering the question of "where is the best location for FDI"? This study attempts to identify the location determinants of outward FDI from ASEAN-4 based on the motivations of FDI as elucidated by Dunning and Lundan (1993). This chapter employs several variables that determines the choice of FDI location by MNEs. To explicate FDI location determinants, the individual variables are divided into three main categories; market, technology, and institutional factors, thus enabling the linkage to the motivation of FDI. The appropriate panel estimation techniques are carefully chosen in order to avoid possible methodological pitfalls. This study is motivated by the fact that to date, only one prior study has focused on ASEAN FDI location determinants; Karimi, Yusop, and Hook (2009). However, their study examined matters from the perspectives of inward FDI. We used two models to test our hypotheses based on panel data estimations. The first model grouped host countries based on their region while the second model grouped home countries based on their membership to regional integration agreement (RIA). Both models have been used not only to compare the findings but also to test the robustness and consistency of the estimations.

Our results provide strong empirical support that market factors play an important role in determining the location choice of outward FDI from ASEAN. The results also support findings from Chapter One that market-seeking is the main motivator for ASEAN outward FDI. The statistical results also suggest that MNEs from ASEAN channelled their obsolete technology to less developed economies especially within the same region. In terms of institutional factors, this research infers that institutions produce mixed effect on location choice. Statistically, political stability and good governance will increase investors' confidence and stimulate FDI while internal conflict deterred FDI. Corresponding to our findings in Chapter Two, we found that corruption has a positive impact on outward FDI and determine outward from this

region. In general, our findings managed to empirically add on to the present literature of outward FDI from small emerging countries in Southeast Asia.

The third empirical chapter employs a different set of data than the first two chapters. In this chapter, we used ORBIS firm level database to test the hypothesis in determining the role of enterprises in shaping the direction of outward FDI from ASEAN. More specifically, this study attempts to compare micro FDI determinants by distinguishing between outward FDI destination from ASEAN to either developed or emerging countries. The main contribution of this chapter rests in employing firm level data which previously unavailable for systematic analysis. The data which allows access to detailed financial company accounts cover the period from 2006-2015. OECD had emphasised the advantages of using this type of data which allows not only for better interpretation but also provides detailed aggregated data (Ribeiro, Menzel, and Backer, 2010).

This study also employs systematic panel data estimation to control for individual heterogeneity. Outward FDI is measured by using the proportion of a firm's asset held overseas. The main theoretical contribution relies on the use of Tobit Model because of its ability to solve the issues on missing data. The evidence from the preceding chapters suggests that ASEAN outward FDI was directed towards emerging countries and mostly intra-ASEAN. The preliminary analysis on the firm-level database provides the determinants of outward FDI from firms' perspective. Consistent with the country-level analysis, our results support the findings. Besides Singapore, which the outward FDI mostly are towards developed economies, the rest of ASEAN-4 centred their FDI towards emerging economies. The intra-ASEAN FDI mostly concentrates on industrial sector especially manufacturing. This chapter managed to establish that Thailand leads other ASEAN-4 members to dominate FDI in other ASEAN member states, which are Cambodia, Laos PDR, Myanmar and Viet Nam (also known as CLMV). As Thailand is focusing on textiles and garments industry, CLMV provides them with an abundance of cheap labour and natural resources.

This chapter presents substantial theoretical contributions based on systematic data analysis. Firstly, we argue that besides Singapore, a firm's ownership in foreign company did not influence FDI from ASEAN-4. Most FDI from ASEAN-4 led by

export and channelled towards emerging / less developed countries, therefore they had already established their presence in local markets before establishing FDI. Furthermore, most firms from ASEAN-4 who engaged in intra-ASEAN FDI, are known in the local market due to its regional proximity, hence some of them did not require collaboration with local firms. Arguably, Bhaumik and Driffield (2011) finds that firms with foreign ownership would prefer to engage in outward FDI to emerging market and knowledge about overseas markets is more likely to matter in context of outward FDI to developed countries. This helps to explain why firm ownership is matters to Singapore's FDI as their investment is more inclined towards the developed market.

Overall, it was found that AFC has impacted heavily on the way FDI is financed in this region. Prior to AFC, firms generated internal funds and used cash to finance its overseas expansion. Nevertheless, the severe impact of AFC had caused majority of the firms to exercise caution and switched to debt financing. This study has taken the first step towards more detailed firm-level analysis in the future as the database expands over the years.

1.6 Structure of the Thesis

This thesis consists of five chapters. Chapter One presents the setting of the study, briefly discusses the theories of FDI, outlines the research questions, and delineates the research methods. Chapters Two to Four are the empirical chapters that are dedicated to answer the specific research questions identified. Chapter Two is concerned with two things. The first is identifying the characteristics of the host countries and discovering what determines outward FDI from ASEAN. The empirical model integrates the motivation of outward FDI, the potential determinants of outward FDI (as per the existing literature) and elaborates how the host country characteristics can influence the investment decision. The second part examines whether time can become the influencing factor and change the way ASEAN deals with cross border investment.

Chapter Three focuses on the location determinants of outward FDI from ASEAN. Unlike the first chapter that focuses on finding the determinants of outward FDI from the host countries' perspective, this chapter demonstrates how the regional characteristics can influence the locational decision of ASEAN MNEs. This chapter investigates the impact of regional integration agreement (RIA) on FDI locational choices and how the characteristics of each region can stimulate or deter FDI from ASEAN.

The preceding two chapters deal with country-level macro-economic data. Chapter Four examines the characteristics of ASEAN outward FDI by using firm-level data. This study incorporates a totally different set of variables and data from various companies in ASEAN-4, that are available via ORBIS. More specifically, this chapter attempts to identify industrial determinants with particular emphasis on the difference between investment in developed and emerging countries.

Chapter Five draws together the overall contributions from each empirical chapter, discusses potential limitations and offers suggestions for future research.

CHAPTER 2

2 The Determinants of Outward Foreign Direct Investment from ASEAN: Analysis of Host Countries

2.1 Introduction

This chapter investigates the determinants of outward foreign direct investment by the four ASEAN countries namely Malaysia, Singapore, Thailand and Indonesia (henceforth known as "ASEAN-4") over the period of 2001 to 2012. ASEAN-4 represents emerging countries whose influence has been on the upswing in the arena of globalisation. The share of South, East and Southeast Asia (SEA) in global outward FDI has increased significantly in the last two decades. As one of the strongest regional economies, ASEAN has accelerated its pace in international expansion via outward FDI. Focusing on outward FDI has always been the agenda of developed countries. However, given the dynamic nature of international business, the climate of foreign direct investment has shifted. Starting from the late 1980s and early 1990s, emerging economies began to rise with significant contributions to the share of global FDI. China, being the major growing economy from Asia recorded an upsurge of outward FDI from USD 2.3 billion in the 1990s to USD 19.1 billion in the 2000s. The World Investment Report (UNCTAD, 2011) recorded an increase in outward FDI from South, East and South Asia, from 2.8% in 1990 to 10.4% in 2010. The rising trend in outward FDI from emerging economies has inspired many scholars to undertake studies concerning the phenomenon (Buckley et al., 2007; Cui and Jiang, 2010; Kalotay and Sulstarova, 2010; Kang and Jiang, 2012; Kyrkilis and Pantelidis, 2003; Liu, Buck, and Shu, 2005; Tolentino, 2010). The prior studies mainly focus on China (Buckley et al., 2007; Liu et al., 2005; Luo, Xue, and Han, 2010; Ramasamy, Yeung, and Laforet, 2012; Tolentino, 2010; Wang, Hong, Kafouros, and Boateng, 2012; You, 2015; Zhang and Daly, 2011), Russia (Kalotay and Sulstarova, 2010) and India (Andreff, 2015; Azam and Lukman,

2010; Bhaumik and Driffield, 2011; Bhaumik, Driffield, and Pal, 2010; Tolentino, 2010). There has been less focus on smaller emerging economies, however, with a dearth of literature on outward FDI from ASEAN. A considerable number of studies have focused on Southeast Asian countries (see appendix 2.1), with most of the studies focusing on specific ASEAN member countries. Generally, these studies have examined the patterns, motivations and determinants of the volume of FDI, location and entry mode choices by adopting several theoretical perspectives including the Eclectic Paradigm, internationalisation motives and Investment Development Path (IDP). One of the reasons for this is due to the paucity of sufficiently disaggregated data that permits formal analysis of outward FDI. The current research therefore attempts to identify the determinants of outward FDI from four ASEAN countries namely Malaysia, Singapore, Thailand and Indonesia.

As listed in Appendix 2.1, the previous studies on ASEAN FDI and outward FDI involvement can be classified into three main themes namely, motivations, determinants and implications of FDI. Ariff and Lopez (2008) reported that the factors that motivated outward FDI from Malaysia are similar to the motives of developed countries. Two other studies reported that Malaysian outward FDI is largely resource-seeing in nature, where the main aim is to seek for cheap labour markets and land (Yean, 2007; Goh and Wong, 2010). Masron and Shahbudin (2010) argued that FDI from Malaysia and Thailand tends to be resource-seeking rather than market-seeking. On the other hand, Hashim (2012) in her case study of Malaysian MNEs, singled out location choice as the main factor that pushes investment out from Malaysia. Similarly, Singapore is motivated to seek for resources, especially labour and land (Ellingsen, Winfried and Peter, 2006). Lastly, in terms of motivation, there is only one study that focuses on ASEAN, which concluded that the motivation for outward FDI from ASEAN is efficiency-seeking.

Previous literature on ASEAN FDI has identified some factors that determine FDI in this region. Among the factors are market size, international reserves, real effective exchange rates, trade openness, labour cost, exports, patents, infrastructure, political stability, distance, common language, inflation rate and good governance.

In the recent studies on Malaysia's outward FDI, Tan, Goh and Wong (2016) and, Chen and Zulkifli (2012) affirmed that outward FDI has a positive impact on gross domestic product (GDP) and complements the gross domestic investment. Outward FDI also encourages adoption of new policies by the Malaysian government to strengthen its investment agenda (Goh and Wong, 2010). In Singapore, a study found out that outward FDI leads to higher GDP per capita. Conversely, higher GDP per capita had led to a decline in outward FDI (Ging, 2010). Lecraw (1993) reported that firms from Indonesia went abroad to exploit ownership advantages. Finally, two studies centred their discussion on the implications of ASEAN FDI and concluded that FDI boosts regional economic development (Pananond, 2008; Masron, 2013).

This chapter is organised into six sections as follows. The first section provides an overview of ASEAN outward FDI, and gives a general perspective on the current situation. This is followed by a section that focuses on the review of the general theory of FDI and discusses the extent to which it is applicable to emerging economies, particularly to ASEAN countries. Based on the literature, the main variables, which have had an influence on outward FDI, are hypothesised to explain the significance of outward FDI within the context of ASEAN-4. The third section highlights the model used to examine the relationship and explain the variables. This is followed in the fourth section by presentation of the empirical analysis and discussion of the findings. The chapter concludes with a section that discusses the limitations and suggests the direction of future research.

2.1.1 Overview of ASEAN outward FDI

This section presents an overview of outward FDI from ASEAN-4.

Figure 2-1 ASEAN-4 Outward FDI by Region

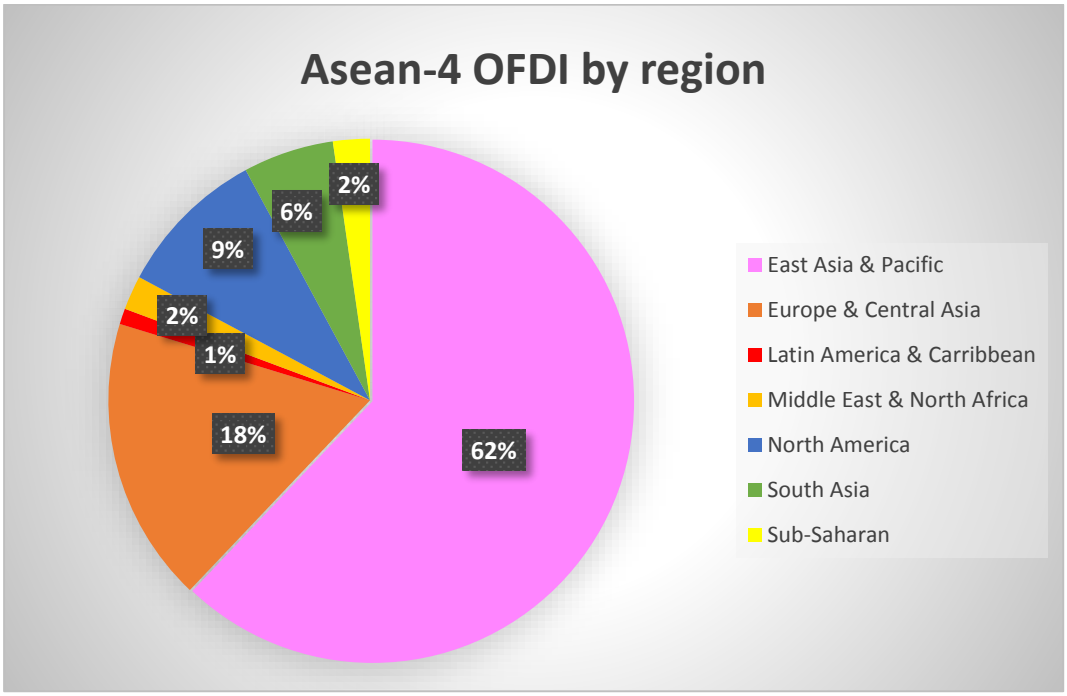
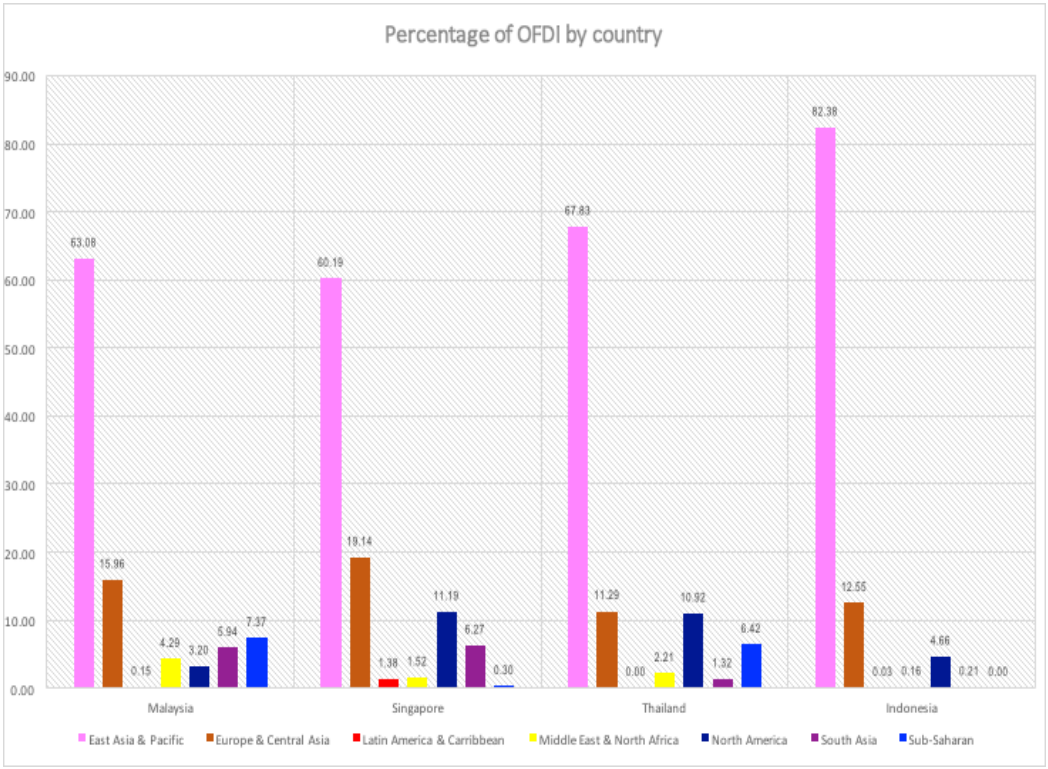


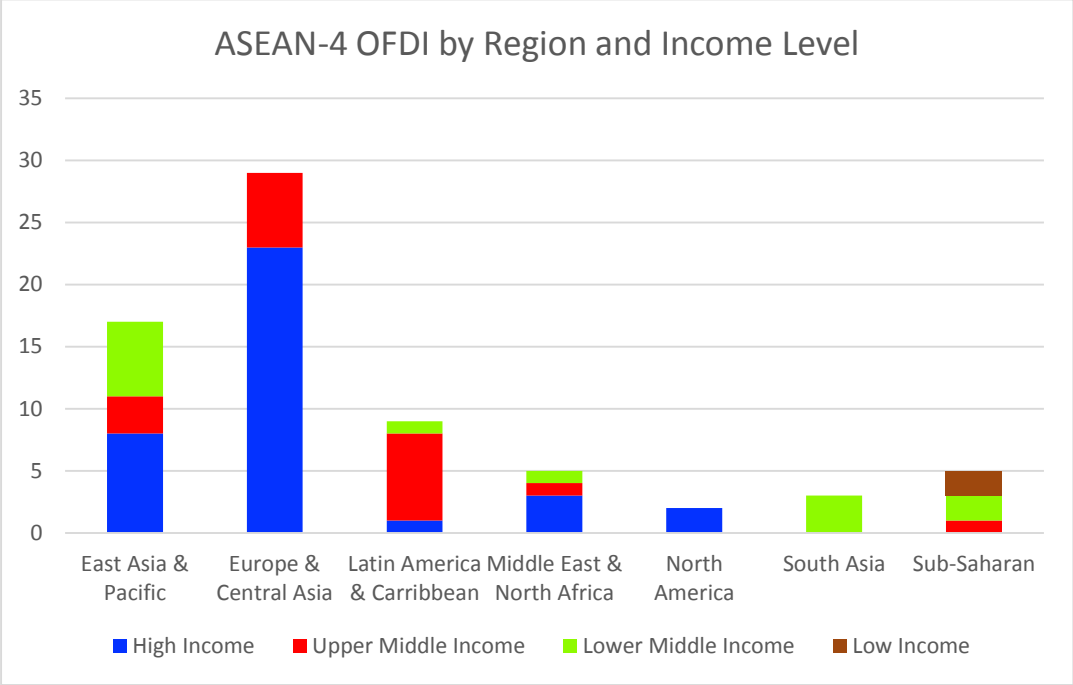
Figure 2-2 Percentage of Outward FDI from ASEAN-4



Figures 2.1 and 2.2 illustrate the trend and direction of outward FDI from ASEAN-4. At first glance, it is clear that the main focus of outward FDI from ASEAN-4 was intra-regional (Gugler and Pananond, 2010), and accounted for 64% of outward FDI. China and Japan have always been the main trading partners for a majority of the ASEAN member countries, including ASEAN-4 (The ASEAN Secretariat, 2012). When China and Japan revolutionised their economy in the mid-1990s and focused on relocating their production to cheaper production-based countries, Singapore, Malaysia and Thailand have since become their main FDI recipients. Because of this prior engagement, ASEAN-4 developed a mutual relationship with them and this has inspired the internationalisation between the countries. Later, when ASEAN-4 MNEs expanded their business abroad, they chose the country with which they have had prior knowledge and connection. This is called incremental internationalisation or the Uppsala Model (Johanson and Vahlne, 1977), which suggests that the decision to engage in international business expansion is based on the gradual incremental steps. The model also suggests that the choice of countries in which to locate FDI is based on the 'psychic distance' between the home and host countries. This model asserts that internationalisation starts with countries that are geographically closer and culturally similar to the home country. Indonesia's outward FDI is very much intra-regional, accounting for almost 83% of its total outward investment. Besides China and Japan, Singapore, Malaysia and Thailand are Indonesia's biggest trading partners.

Europe and Central Asia with almost one fifth of outward FDI, represent significant extra-regional investment from ASEAN-4. All of the ASEAN-4 involvement in outward FDI in this region was at the average of 15% respectively. Among the major host countries are the United Kingdom, Germany, France and Poland. Another major recipient of ASEAN-4 outward FDI was the North American Region, with 9% of the total investment. Of the North America countries, only the USA received outward FDI from all ASEAN-4 members, whereas Canada only had FDI from Thailand. Among the rest of the regions, only Malaysia showed significant investment in the Middle East and North Africa, followed by Singapore and Thailand.

Figure 2-3 ASEAN-4 Outward FDI by Region and Level of Income



To further understand the trends of outward FDI from ASEAN-4, we further divided the region into different income levels based on the guidelines from UNCTAD. In general, ASEAN-4 choose countries with a high-income level. However, that still depends on the host region itself. For example, in the East-Asia and Pacific region, the two high-income countries that are the most prominent recipients of outward FDI from ASEAN-4 are Australia and Singapore. Whereas, the United Kingdom and the USA are among the locations that are being targeted by investment from ASEAN-4 in other parts of the world.

2.2 Theoretical Background

A large and growing body of literature in international business has focused on the importance of FDI and its pivotal roles in boosting economic development. Traditionally, the focus centred on defining the main theory, finding the reason for FDI development, outlining the relationship and identifying the effects and impacts on the nation. Much recent attention has identified a clear demarcation between inward FDI and outward FDI. However, prior studies have focused on investment from the perspective of developed economies. Arguably, previous studies have failed to capture the phenomenon of investment from emerging/less developed countries. In recent years, the emergence of international investment from emerging economies has become substantial and requires further attention. Until the 1980s, more than 90 per cent of global outward FDI originated from the developed countries (UNCTAD, 2005). However, since the early 1990s, emerging countries and especially Asian emerging economies, have seen a rapid growth in their outward investments. The share of South, East and Southeast Asia in global outward FDI increased from less than one percent in 1980 to almost ten percent in 2004. South-South FDI now accounts for one third of all FDI going to emerging countries and territories. Furthermore, there is a new trend of rising outward FDI from South to North. This raises two important questions: (a) what triggers outward FDI from the emerging countries and territories; (b) can the existing theories of FDI explain this emergence of outward FDI from the emerging countries and territories? Therefore, it becomes necessary to explain the essence of outward investment behaviour from the perspective of emerging nations.

Based on the most cited taxonomy of outward FDI motives and building upon Dunning's Eclectic Paradigm (1977), the general aspect of outward FDI theory instigates three key FDI motivations: 1) foreign market-seeking, 2) efficiency (cost reduction)-seeking, and 3) resource-seeking (including strategic-asset-seeking). Even though most of the general theory of FDI was built based on the experience of developed western economies (Buckley et al., 2007), some aspects of the theory are readily adaptable to the emerging economies including ASEAN economies CBBS.

As discussed in Chapter One, market-seeking investments are undertaken in order to serve foreign markets through domestic production and distribution as opposed to exporting. Generally, market-seeking FDI is commenced to support trade expansion especially in terms of accessing distribution networks and facilitating exports by following customers or accessing new markets. Domestic pressure such as a saturated market, expensive capital and labour, signals investors to relocate their production to another larger market. Alternatively, home country and regional economic policies also foster market-seeking investment from ASEAN-4. The introduction of a liberal taxation structure, availability of financial support and efficient fiscal measures have proven to aid investment expansion.

Efficiency-seeking FDI occurs when a MNE seeks low-cost locations to increase cost competitiveness (Giroud and Mirza, 2010) particularly in the search for lower-cost labour (Buckley et al., 2007). From the mid-1980s until the early 1990s, most of the ASEAN countries enjoyed strong economic growth and development. The region has emerged to become one of the major FDI recipients due to relatively low labour cost and easy access to natural resources. Many multinationals, especially from Japan and other developed Western economies, moved their operations in manufacturing and labour-intensive industries to this region. For example, Honda opened its factory in Malaysia, and Toyota invested in Thailand. Singapore has also become the region's financial hub, and Indonesia hosted many companies such as Unilever, an Anglo-Dutch multinational firm. However, during the period following the Asian Financial Crisis (1997-1998), there has been a notable slowdown in FDI flow into the region. Malaysia was described as experiencing the "middle-income trap" (Athukorala and Waglé, 2011) while Thailand and Indonesia struggled with huge external debts. Besides the post-crisis conflict, intense competition from other low-wage and labour-intensive countries such as China and Vietnam also contributed to the sluggish inward FDI. Hence, to improve cost-competitiveness and to seek a low-cost environment, many companies gradually relocated their business to other countries, such as Cambodia and Lao PDR, which has abundant low-cost labour.

ASEAN firms also expanded overseas via resource seeking FDI to gain competitiveness or increase their international presence. In the quest to exploit or acquire long-term supplies of natural resources and energy sources, companies from

this region often established foreign subsidiaries by means of joint ventures or acquisition. Gaining access to raw materials is often cited as one of the reasons for ASEAN investments overseas. A good example is Felda Global Ventures Holdings Berhad (FGV) from Malaysia and its investment in Kalimantan, Indonesia. Since the possibility of finding new land in Malaysia is limited, FGV, Malaysia's largest palm oil producer, purchased a 21000 ha oil palm plantation in Kalimantan, to cater for the increasing local and overseas demand for palm oil. Through its joint ventures with PT Citra Niaga Perkasa (Indonesia), the company purchased another 14385 ha for the same purpose. Another example is Thailand's sugar refinery industry. Known as the world's primary sugar exporter, the country cultivates and refines sugarcane in Lao PDR before importing the product back to Thailand and distributing it worldwide.

Strategic asset seeking FDI is known as a strategic move to acquire new advantages that can augment a MNE's existing competitive advantage to maximize overall performance. Dunning (2009:9) argued that "the most significant change in the motives for FDI over the last two decades has been the rapid growth of strategic asset-seeking FDI, which is geared less to exploiting an existing [ownership]-specific advantage of an investing firm, and more toward protecting, or augmenting, that advantage by the acquisition of new assets, or by a partnering arrangement with a foreign firm." In the case of ASEAN, the investment abroad helps in fostering business networking, establishing brand names, developing strategic production facilities, including purchasing agricultural land, and oil and gas exploration. A number of examples show that ASEAN investment in a foreign market has enhanced the global presence of MNEs, such as the Development Bank of Singapore (DBS), with 100 branches located worldwide. It is the largest bank in South East Asia and one of the largest in Asia. Another example is Pertamina, an energy company from Indonesia that expanded its business to Libya, Qatar and Sudan. Apparently, these multinationals engaged in overseas operation not only to acquire and exploit existing resources. They also accumulated new technology, managerial skills and engaged in collaborative research and development (R&D) programmes with their affiliates.

2.3 Hypotheses Development

Prominent empirical studies demonstrate an array of variables based on the motivation for FDI including market size (and growth), trade barriers, wages, production, patent, transportation (and other relevant costs), political stability, psychic distance, host governments' trade and taxation regulations (Dunning and Lundan, 1993) as the main determinants of outward FDI from any nation. However, none of the prior studies identified and included all variables in a single project. The methodologies and focus of these studies also differ accordingly. This paradigm is not only applicable to research from developed nations, it is also extended to emerging and less developed nations. The study of ASEAN outward FDI is no exception. As mentioned earlier, the literature on ASEAN outward FDI is sparse and normally confined to either one member country or a combination of two or three.

Based on the summary of literature on ASEAN outward FDI (see Appendix 2.1), seven studies used qualitative methods, including case studies and document analysis to establish the findings (Ariff and Lopez, 2008; Goh and Wong, 2011; Hashim, 2012; Hiratsuka, 2006; Lecraw, 1993; Pananond, 2008; Yean, 2007). Among all, four studies focus on establishing the determinants of outward FDI from Malaysia, one study looking at the implication of outward FDI from Indonesia, with the other two examining the trends and determinants of outward FDI from the perspective of ASEAN.

The remainder of the studies examined the determinants, motivation and implication of outward FDI from ASEAN using quantitative methods (Blomqvist, 2002; Chen and Zulkifli, 2012; Darmawan and Azzahra, 2013; Gaute, Winfried, and Peter, 2006; Goh and Wong, 2010; Goh, Wong, and Tham, 2013; Hashim, 2012; Ismail, 2009; Kueh, Puah, and Apoi, 2008; Kueh, Puah, and Mansor, 2012; Lee, 2010; Masron and Shahbudin, 2010; Pangarkar and Lim, 2003; Ratiphokhin, 2011; Saad, Noor, and Nor, 2014; Tan, Goh, and Wong, 2016). There are six studies focusing on Malaysia, five studies on Singapore, one study on Indonesia, and one study on both Thailand and Malaysia. Two studies focus on the determinants and impact of outward FDI from ASEAN by using a semi gravity approach and panel data analysis. The use of panel

data in the current study is similar to the approach adopted by Tan et al., (2016), however, the current study is enlarged by using Tobit Analysis, as postulated by Bhaumik and Driffield (2011). Therefore, besides contributing to the current literature on determinants of outward FDI from emerging markets, the methodology used in this research will provide insight on the issues.

Based on the study by Buckley et al., (2007) and the consideration of the mainstream theory, the determinants of outward FDI from ASEAN-4 are hypothesised as follows:

2.3.1 Market Size

Many studies on FDI have used GDP as the main variable to indicate the market size. GDP has been accepted as the most used variable in determining FDI (Buckley et al., 2007; Chakrabarti, 2001). A large market is portrayed as a potential attraction to MNEs to expand in the host country, and it is positively related to FDI. As it is hypothesized, the larger the market size, the higher are the chances of obtaining more profit (Buckley et al., 2007). Scaperlanda and Mauer (1969) asserted that, as the market grows, FDI could become the catalyst to enhance effective resource utilisation and achieve economies of scale. In the case of emerging markets, recent studies of Chinese FDI suggested that the trend is moving towards larger markets (Buckley et al., 2007; Deng, 2004; Taylor, 2002), while Azam and Lukman (2010) reported that market size was an important determinant of Indonesian FDI. Several scholars have used GDP per capita (GDPP) to further understand the market-seeking motives among MNEs (Buckley et al., 2007; Demir, 2015; Duanmu and Guney, 2009; Kang and Jiang, 2012; Kim and Rhe, 2009; Ramasamy, Yeung, and Laforet, 2012). Many companies from this region are targeting foreign markets in order to sell their products. The formation of the ASEAN Free Trade Area (AFTA) in 1992, boosted intra-regional trade and reduced barriers among ASEAN members, hence making intra-trade investments more attractive. Many investments from ASEAN are to access markets in less developed countries that are normally characterised by labour-intensive products and the production of undifferentiated and low-value added goods. This region possesses a competitive edge in some industries such as textiles and clothing, small electrical

alliances, microchip components, and telecommunications. The players in this industry are competing to increase their competitive advantages by exploiting countries with similar or lower level of economic development. For example, Axiata from Malaysia has operations in many countries including Indonesia, Thailand, Cambodia, and Sri Lanka, and is one of the largest ASEAN telecommunication companies. The internationalisation strategy of Axiata is focused on high-growth-low penetration emerging markets and as of 2011, the group has over 200 million mobile subscribers based in Asia and generated a total revenue of $5.4 billion, employing over 20,000 employees in the Asian region. Another significant trend of market seeking investment from this region is the establishment of foreign affiliates as a result of following the main customers especially in banking and service sectors. Banking firms such as CIMB and Maybank from Malaysia, Bangkok Bank (Thailand), OUB and OCBC from Singapore have been actively investing and expanding regionally and globally to follow their main investors to better serve their customers.

2.3.2 Export / Trade Openness

The intensity of trade relations between home and host countries is proxied by total exports from the home country. Exporting could be a precursor to investment abroad and helps investors to generate foreign commerce. Most of the ASEAN countries started their internationalisation activities with exports. Through foreign exporting, knowledge and technology know-how can be transferred between countries and will subsequently contribute to ownership advantage and outward FDI (Dunning, Kim, and Lin, 2001). In many ways, exports complement outward FDI, especially when exports are used as a platform to establish production facilities (UNCTAD, 2003) and as a means to expand business networks which are essential to subsequent exporting (Yeung, 1998). This complementary relationship between FDI and exports was emphasised in the Helpman Model (Helpman, 1984) which suggests that this relationship gives the home country positive welfare effects. Grosse and Trevino (1996) indicated that FDI is used to preserve markets that were previously established by exports and by doing so a country can build its competitive advantage. Nevertheless, Bellak (2001) argued that instead of complementing, FDI could become an alternative or a substitute for exports because potential exporters may use FDI as a mean of overcoming trade barriers (UNCTAD, 2003). In many cases in ASEAN, FDI is seen to follow exports (Eaton and Tamura, 1994) to ensure the investors can serve their customers in foreign market.

Likewise, trade openness measures the readiness of any economy to attract or refuse a trade. Trade openness will either promote or deter economic development or growth in a country. According to Chakrabarti (2001), a country that opens to international investment is likely to attract more FDI. Nevertheless, the importance of trade openness in determining outward FDI is still debatable (Tolentino, 2010). On one side, studies found strong positive effects between trade openness and FDI (Pantelidis and Kyrkilis, 2005), while others established that the effects of trade openness and FDI were divergent (Tolentino, 2010). Correspondingly, Wheeler and Mody (1992), testified that different industries will yield different effects on the relationship between trade openness and FDI. They discovered that the manufacturing sector had a strong

positive effect of trade openness on FDI, while the electronics industry showed weak and negative links.

Therefore, the following hypotheses are formulated to understand the market-seeking motives of ASEAN-4 by incorporating few variables that influence market factors.

Hypothesis 1a: ASEAN-4 outward FDI is associated positively with the host country's market size.

Hypothesis 1b: ASEAN outward FDI is led by export activities in the host countries as the companies build trust and knowledge of the markets.

Hypothesis 1c: Investor-friendly trade liberalisation policies are positively associated with market-seeking motives of ASEAN-4 investment.

2.3.3 Patents

Technology seeking investment stems from a desire to seek technological advancement, management know-how, brand recognition and advanced marketing strategy through FDI. In recent years, many companies have been engaged in joint ventures or mergers and acquisitions (M&A) to strengthen their business networks, leveraging brand names and reputations as well as accessing new skills and technology. Normally, firms from a country with greater technological endowments will have access to the latest technology and use it to leverage competitive advantages when internationalising and at the same time encourage FDI (Duran and Ubeda, 2001; Lall, 1996; Narula, 1996). Scholars such as Stoian (2013) have established the theoretical and empirical support that link technology and outward FDI, however most of the research centred on developed economies. Some other researchers have argued that, the role of technology in encouraging outward FDI is overstated (Andreff, 2002) and highlighted that investors from emerging economies are motivated by price and brand name rather than technology (Rasiah, Gammeltoft, and Jiang, 2010).

Therefore, from one perspective, we can argue that similar to investors from developed countries, ASEAN-4 investors also direct their technology asset seeking investment towards developed economies with substantial levels of human and intellectual capital (Dunning, 2006) in an effort to seek the newest technology (Banga, 2007). While from a different angle, some investors from emerging markets have access to lower technologies and management practices that may be better suited for another emerging economy (Salehizadeh, 2007), this motivates inventors to share the similar technology or transfer it to another location with similar or less technology capabilities. ASEAN-4 firms, except for Singapore, usually operate in traditional industries characterised by mature technology, such as agriculture, textile and food manufacturing. In this case, we noticed that outward FDI from ASEAN-4 may follow the pattern of Chinese MNEs when they targeted companies that had difficulty surviving or are on the brink of insolvency (Buckley et al., 2007), or more on transferring their current technology to less developed countries. Proxied by the total annual patent registrations in the host country (patent), we postulate the hypothesis for technology asset-seeking as follows:

Hypothesis 2: ASEAN-4 outward FDI is associated positively with the host country's endowments of ownership advantages.

2.3.4 Natural Resources

One of the main motives for internationalisation is acquiring specific types of resources that are scarce or not available in the home country (Dunning and Lundan, 1993) such as raw materials or low cost resources such as labour (Franco, Rentocchini, and Marzetti, 2008). The search for natural resources by different key sectors such as natural gas, oil, minerals and timber is not restricted to neighbouring countries but can go beyond the region. For instance, Petronas, the largest oil and gas company in Malaysia, has expanded its business to as far as Sudan and Canada in the quest for resources. Equity-based control in the exploitation of scarce resources is salient in internationalisation theory (Buckley and Casson, 1976). Therefore, firms pursue various strategies to collaborate, acquire or take over another firm in the process. For the purpose of this study, we use the ratio of ore and metal exports in GDP, natural gas reserves and oil reserves as the proxy for natural resources. Based on previous studies, the choice of variables adopted as a proxy for natural resources can be either export shares (Kolstad and Wiig, 2012) or indices of natural resources. Kolstad and Wiig (2009) argued that the rent of natural resources is more appealing to investors than what lies in the ground. This argument is supported by scholars such as Brunnschweiler and Bulte (2008) and Lederman and Maloney (2008) who asserted that indices of natural resources (what is in the ground) should be a proxy of resource-seeking motives. The World Investment Report (UNCTAD, 2006) indicated that resource-seeking is the main motive for ASEAN outward FDI. Many ASEAN multinationals are either in manufacturing, agri-business or operating in the oil and gas industry (The ASEAN Secretariat, 2012). Therefore, the survival of the companies relies heavily on their ability to internalise their core competencies and comparative advantages. Evidently, ASEAN-4 countries are blessed with abundant factor of endowments, such as natural gas (Malaysia, Indonesia, Thailand), huge land areas (Indonesia and Thailand), strong financial conditions (Singapore and Malaysia) and fisheries. Nevertheless, domestic pressure and the need to exploit the business opportunities have inspired investors to look for new ventures where cheap natural resources are abundant, together with lower cost of production. In addition, the benefits of being in ASEAN, motivate ASEAN-4 to employ their capability of being the pioneer in technology and international business

by capitalising the advantages in another member state. For that reason, the following hypothesis is applied to gauge the resource seeking motives of ASEAN-4.

Hypothesis 3: Even though ASEAN-4 have abundant factor endowments, the need to leverage business capacity by minimising production costs motivates them to invest in countries with plentiful resources.

2.3.5 Political/Government Stability/Conflict/Corruption

In determining which strategies to use when dealing with outward investments, consideration should be given not only to traditional strategies such as industry conditions and firm-specific resources (Porter, 1990; Barney, 1991) but also to other factors. Institutional factors play an important role in shaping firms' FDI behaviour. According to Scott (1995), the institutional framework, whether it is formal or informal, will influence the decision-making process of firms and become a significant indicator that firms are not only focusing on industry-based and resource-based characteristics, but also emphasising the institution-based view (Peng, 2002). The institution-based view argues that in the process of internationalisation, firms are accommodated or curtailed by some institutional forces (Wang, Hong, Kafouros, and Boateng, 2012) which include internal and external elements. Internal elements may include (but are not restricted to) support given by the local government to facilitate or encourage firms to engage in overseas expansion (Buckley et al., 2007). Luo, Xue and Han (2010) asserted that the home government is instrumental in boosting internationalisation activities by investors, especially if the investment is by government-linked companies. Conversely, escaping from local institutional conditions such as high corruption, political instability, quotas and a poor regulatory environment will also push firms to seek for external opportunities (Luo, Xue and Han, 2010). Therefore, the institution-based view suggests that the institutional framework will shape firms' FDI strategies (Peng, 2005; Peng, Wang, and Jiang, 2008). With the exception of Singapore, all ASEAN countries are listed towards the bottom of the World's Corruption Index. Among the 138 countries listed in the index, Malaysia has been consistently placed around the 50^{th} to 60^{th} places, whereas Indonesia and Thailand are at the 70^{th} to 90^{th} places respectively. While many ASEAN multinationals are public-owned or partly public-owned companies, it is important to understand whether institutions play an important role in determining the outward FDI. To discover whether ASEAN companies have the same institutional preference, we test the following hypothesis:

Hypothesis 4: A stable and transparent institutional context in the host country, insofar as this fosters a long-term relationship, underpins the motivation of ASEAN outward FDI.

The determinants of ASEAN outward FDI can be summarised as follows:

Table 2-1 Summary of the Determinants of Outward FDI

Hypotheses and number	**Proxy**	**Data Source**
OFDI (DV)	Annual outflow of ASEAN FDI – in stock	UNCTAD Bilateral statistics
Host Market Characteristics:		
I) Absolute Market Size (H1a)	GDP: Host country GDP	UNCTAD
II) Relative market size (H1a)	GDPP: Host Country GDP per capita	UNCTAD
Strategic Asset-seeking FDI (H2)	Patent: Total annual patent registrations in host country	World Intellectual Property
Exports (H1b)	ASEAN Exports to the host country	UNCTAD
Openness to FDI (H1c)	Trade openness in the host country	UNCTAD
Institutional Factors:		
1) Political Risk (H4)	Host Country political risk	International Country Risk Guide (ICRG)
2) Government stability (H4)	Host country government stability index	ICRG
3) Internal Conflict (H4)	Host country internal conflict	ICRG
4) Risk of corruption (H4)	Host country risk of corruption	ICRG

Natural Resource endowment (H3) 1) ore	ratio of ore and metal exports to merchandise exports of host country	UNCTAD

2.4 Empirical Model Specification and Data Description

The scope of this study is limited to four ASEAN countries namely Malaysia, Singapore, Thailand and Indonesia focusing on the period from 2001 to 2012. The choice of this scope is viable for two reasons; time frame and country selections. As for the time frame, it is acknowledged that ASEAN countries had suffered from the Asian Financial Crisis (AFC) from 1997-1998. The crisis that originated in Southeast Asia caused severe economic turbulence in the region and to some extent, ceased economic growth of the region. Even though Singapore is well known to have the strongest economy in the region, surprisingly it was also strongly affected by the crisis followed by Malaysia and Thailand (Ikuo and Hiroshi, 2010), while Indonesia was hit the hardest. After the recession, the majority of the Southeast Asia countries gradually rebounded by reinforcing certain regulations or implementing new policies. Nevertheless, economic disturbance did not go away. The global financial crisis (GFC) 2007-2008 impeded ASEAN economic recovery. Despite the fact that the origin of the GFC is extra-regional and the impact on ASEAN was far less severe than AFC 1997, nevertheless it still caused economic disruption. The decline in demand for ASEAN goods in world markets with exports from ASEAN falling in value, dampened the region's growth. Therefore, it is interesting to know the determinants and directions of outward FDI from this group of countries after the AFC and GFC. The choice of only four countries, from all ten South East Asian countries, lies in the difficulty of obtaining sufficient data from the other countries. As reported by the ASEAN Investment Report (The ASEAN Secretariat, 2012) in this region, only the ASEAN-4 have shown prominent participation in outward FDI. Hence, by completing this study, we hope to contribute to the limited but growing literature in the area.

Besides the ASEAN-4 as home countries, another 71 countries were taken as host countries, which are further divided into seven regions as per the guidelines by UNCTAD. All these countries have either bilateral trade with any one or all the four home countries (ASEAN-4). The host countries are listed in Table 2.2.

Table 2-2 List of Host Countries

Region	Region ID	List of countries
East Asia and Pacific	1	Australia, New Zealand, China, Hong Kong, Taiwan, Japan, Brunei, Cambodia, Indonesia*, Laos, Malaysia*, Myanmar, Philippines, Singapore*, South Korea, Thailand*, Vietnam *also the home country
Europe and Central Asia	2	Austria, Belgium, Bulgaria, Czech Rep, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, United Kingdom and Turkey
Latin America and Caribbean	3	Argentina, Brazil, Costa Rica, El-Salvador, Ecuador, Mexico, Panama, Peru, Venezuela
Middle East and North Africa	4	Algeria, Egypt, Israel, Morocco, Saudi Arabia, Tunisia, United Arab Emirates
North America	5	United States of America, Canada
South Asia	6	Bangladesh, India, Pakistan
Sub-Saharan	7	Malawi, Mauritius, Nigeria, Uganda, Zambia

With twelve years' observations for each host country, the use of panel data methods, as compared to cross-section or time-series models, is the most appropriate to obtain the best estimation. Hsiao (2003) lists several advantages of panel data estimation, among others are: 1) the model parameter yields more accurate inference because panel data have more sample variability and degrees of freedom, 2) the mixture of inter-individual and intra-individual dynamics of longitudinal data will allow for a more informative and realistic analysis, and 3) panel data helps to simplify computation and statistical inference. Since these data involve 71 countries, there will be issues on individual country heterogeneities, hence panel specification with help to estimate better regression parameters. Generally, solving unobserved country specific effects would be more complicated in panel data estimation than cross sectional or time series data (Wooldridge, 2005). However, with the application of the Tobit Model, the problem can be simplified by focusing on the subsample in which previous realised values are observed (Arellano, Bover, and Azcona, 1997). Based on the above justification and using (0,1) as limits, the application of the Tobit Model is the most appropriate (Banga, 2006; Bhaumik and Driffield, 2011; Bhaumik et al., 2010).

The dependent variable for this study is the total amount of outward FDI stocks. The reason why stocks is used is because stocks are a clear proxy of multilateral investment activity, that can illustrate the activity of multinational enterprise. All data were taken from the UNCTAD database, unless it is stated otherwise. FDI stocks are in USD millions and a non-negligible portion of the observations is zeros. Working on such large amounts requires that all data be converted to logarithm and imposed to drop the negative-observations with a potential selection bias. In order to circumvent the problem, a relatively small constant *a* is used to replace 0 and working with ln(a + FDI) instead of ln(FDI) (Bénassy-Quéré, Coupet, and Mayer, 2007). In this case, we used *a* = 1, which allows for positive result after logarithm, hence, yielding robust and reliable results.

Therefore, we postulated the following Tobit panel data model, with variables as per the discussion in section 2 to explain the determinants of outward FDI from ASEAN-4 to the host countries:

$$OFDI = \beta_0 + \beta_1 lngdp_{it} + \beta 2 lngdpp_{it} + \beta_3 lnpatent_{it} + \beta_4 lnexp_{it} + \beta_5 lnopen_{it} + \beta_6 lnpoli_{it} + \beta_7 lngs_{it} + \beta_8 lnconflict_{it} + \beta_9 lncorrup_{it} + \beta_{10} lnore_{it} + \mu i + \varepsilon_{it} \quad (1)$$

$$where\ i = 1,2,3,\ldots\ldots N;\ t = 1,2,3,\ldots\ldots T$$

Outward FDI is annual outward stock FDI from ASEAN-4 to host countries, and subscripts *i* and *t* are the index cross section units of a specific host country varying from 1 to 71, and time starting from year 2001 to 2012 respectively. *GDP* and *GDPP* are the measure for market size, *PATENT* is the number of patents registered in the host countries and used to capture technology involvement, export (*EXP*) indicates the total export from ASEAN-4 to host countries, trade openness (*OPEN*) shows the degree of openness to trade, whereas political stability (*POLI*), government stability (*GS*), *CONFLICT* and *CORRUP* implies the institutional risk of each host country, with a bigger value donating a better outcome. *ORE* represents the availability of natural resources of each country, μi is the firm-specific fixed-effect and ε_{it} is the error term.

2.5 Empirical Analysis and Discussion

Two statistical models were used to estimate the determinants of outward FDI from ASEAN-4. The models are (1) Tobit Regression based on Bhaumik and Driffield (2011) and (2) Random Effect (RE) based on Buckley et al., (2007). The Fixed Effect (FE) is not a plausible option because of the inclusion of the time variance variable. Later, the data is further divided into two-time frames (before and after GFC) to investigate if there are any significant changes happen to the outward FDI during the stipulated time. The changes might influence investors' decision making across the variables, thus affecting investment trends.

In preliminary regression, two of the alternative measures of host market size (*GDP* and *GDPP*) never attained significance and therefore *GDPP* is not included in the final specification, which is reported in Table 2.4. The variable *GDP* is retained to capture the market-seeking motives of ASEAN-4 as per hypothesis 1a. Both models (Tobit and RE) display almost similar empirical results, thus indicating the robustness of the model and the variables used are appropriate in explaining the determinants of outward FDI. Table 2.3 presents the correlation matrix which indicates that multicollinearity is not a problem with the data.

Based on the Tobit Analysis (column 1, Table 2.4), the results for host countries' market characteristics (measured by *GDP*, *EXP* and *OPEN*) is varies across the ASEAN-4. Generally, taking ASEAN-4 as a unit, all market characteristic variables are found to be significant with the correct sign. For example, a 1% rise in the *GDP* increases ASEAN outward FDI by 8.1%. The host country export and trade liberation is significant in attracting outward FDI from the ASEAN-4. This finding supports the fact that ASEAN-4 internationalisation starts with establishing knowledge of the market prior to direct investment. This conforms with the findings of Duran and Ubeda (2001) that explain exporting as having become the platform of investment abroad. With exporting, ASEAN-4 established its market presence, augmented market knowledge and expanded its business contacts before finalising the decision to invest in the host country. The positive value of export variables confirms that export-led investment is an important character that defines outward investment from this region. Trade openness, on the other hand, reflects the host country readiness to accept foreign

investments, has a positive and significant sign for ASEAN-4. A similar result is also obtained by Model 2, therefore hypothesis 1a-1c are supported, hence, market-seeking was a key motive of ASEAN-4 outward FDI in the study period. This result supports the findings by UNCTAD (2006) that suggested market-seeking FDI was the most common strategy undertaken by emerging countries.

The same model is used to test the determinants of outward FDI for the individual ASEAN-4 countries. In all cases, the common market characteristic that defines all countries is trade openness. In terms of market size, only Singapore seeks for larger markets, perhaps because it is smaller when compared to other countries in ASEAN. Malaysia and Thailand display export-led investment as a transition before the involvement in outward FDI. Overall, all four countries exhibit the importance of the host country having a flexible investment policy that promotes trade liberalisation and encourages direct investment.

Another important finding is the variable ore, associated with resource-seeking FDI (Hypothesis 3). The result is positive and significant except for Indonesia. This confirms that despite having abundant natural endowments, ASEAN-4 are still looking for those host countries that can supply them with cheap and abundant resources. Having a large population and a large amount of valuable land could explain why natural resources seeking does not apply to Indonesia. In conclusion, this result implies that, besides market-seeking, resource-seeking also motivates outward FDI from ASEAN-4. Therefore, hypothesis 3 is supported.

With regard to hypothesis 2, the efficiency/strategic asset-seeking variable is not significant in both models across all units of analysis. This finding suggests that ASEAN-4 outward FDI have not been motivated to acquire strategic intellectual capital assets over the period of study, but rather are more interested in transferring its current technology to other emerging countries. This is because the variable patent is measured by the number of patent registrations in the host country, and since transferring current technology did not require the investors to do so, thus this variable is not significant. Nevertheless, as mentioned in Chapter 1, efficiency/strategic-asset seeking FDI is motivated to rationalise the structure of the established resource-based or market-seeking FDI by enhancing the value-added activities geographically. The two types of

efficiency-seeking investment which are, firstly to exploit resources in order to achieve efficiency in production and secondly to obtain the economies of scales, are able to explain hypothesis 2. Since the finding established that variables patent is not significant, we can infer that in seeking for efficiency, ASEAN MNEs are more inclined towards exploiting host country's natural resources and cheap labour. This is characterised by firms involved in labour intensive industries including manufacturing and agriculture based industry. MNEs that fall in this category mostly are from Malaysia, Thailand and Indonesia. Whereas, characterised by big and more technologically competent companies and representing advanced industry such as information technology (IT), the second type of efficiency-seeking investment is more likely applicable to explain Singaporean MNEs.

Considering the institutional factors (host country political risk, government stability, internal conflict and corruption index) the results display a mixture of findings. None of the variables used to proxy institutional factors is significant for all countries. This implies that, ASEAN-4 responds differently to institutional factors based on the home country characteristics. Out of the four variables, political risk is negative and significant for all countries except for Indonesia. This suggests that a decrease in the host country risk index (i.e., increase in risk) is associated with an increase in outward FDI. Conversely, government stability is not important for ASEAN-4 when choosing its host country. If we relate to the earlier finding, this may be the result of export-led investment that encourages investors to establish a prior relationship before deciding on direct investment. Therefore, the risk of dealing with an unstable government can be mitigated.

An interesting finding is indicated by the significance of internal conflict only to Malaysia's investors. This indicates an inverse relationship between conflict and outward FDI. A possible explanation for this scenario is the sensitivity of the Malaysian government towards the conflicts experienced by other countries. For example, during the period of study, countries such as Myanmar and Thailand were having intense internal conflicts. Since Malaysia is known to be a prominent member of the Organisation of Islamic Conference (OIC), which has been vocal in opposing countries involved in ethnic oppression, such as the ethnic cleansing of the Rohingya people

(Myanmar), India-Pakistan's long-term conflict and South-Thai insurgency, this may cause the government to exercise caution when dealing with these economies.

Another significant finding is the corruption index. The variable shows a positive and significant relationship with outward FDI from Malaysia and Singapore. This suggests that a 1% increase in the host country corruption index (i.e. an increase in corruption) is associated with a 1.4% and 3.7% increase in outward FDI from Malaysia and Singapore. Being consistently listed in the bottom half of the corruption index, this result indicates that, while Malaysia itself is corrupt, dealing with other corrupt countries has not deterred FDI. However, this is not the case for Singapore. Singapore is constantly ranked among the top countries with low levels of corruption. Therefore, the prior explanation for Malaysia is not applicable to Singapore and this requires further examination.

Changes over time

In order to investigate whether or not ASEAN-4 outward FDI has changed in character over the study period, especially before and after GFC, the data is divided into two time periods, which are 2001 – 2006 (before GFC) and 2007 – 2012 (after GFC). Since the result between the Tobit and RE models is similar, we only report the result for the Tobit analysis. Nevertheless, the result for the RE model is attached as an appendix 2.2.

This estimation is presented in Table 2.5, which exhibits some contrast among the variables. This indicates that motivation determinants of outward FDI from ASEAN-4 may experience changes over time. Of all the variables, it appears that *CORRUP* (corruption) and *ORE* (natural resources) shows distinctive character. In the earlier discussion, the significant of variable ORE exhibited resource-seeking as one of the motivators for ASEAN-4 outward FDI. However, *ORE* is only significant for Singapore after the GFC. This development signifies the view that only Singapore is motivated by resource-seeking investment. Interestingly, the variable *CORRUP* is no longer significant for Singapore after the consideration of time period. This may be the possible explanation to earlier finding that Singapore is moved by investment in corrupt countries. The fact that *CORRUP* is no longer significant shows that corruption did not deter nor motivate investment from Singapore.

On the contrary, there is not much differences denoted by all other variables. The finding reinforces the view that market characteristics were still the important determinants of ASEAN-4 outward FDI despite the involvement in GFC.

Table 2-3 Correlation Matrix

	ofdi	lgdp	lpatent	lexp	lopen	lpoli	lgs	lconflict	lcorrup	lore
Ofdi	1.000									
lgdp	0.192	1.000								
lpatent	0.194	0.847	1.000							
lexp	0.237	0.683	0.637	1.000						
lopen	-0.020	-0.404	-0.407	-0.136	1.000					
lpoli	0.041	0.558	0.372	0.344	-0.242	1.000				
lgs	0.017	-0.059	0.007	0.034	0.092	-0.241	1.000			
lconflict	-0.017	-0.003	-0.001	-0.018	0.390	0.019	0.197	1.000		
lcorrup	0.036	0.246	0.140	0.078	0.172	0.290	-0.019	0.483	1.000	
lore	0.029	0.022	0.049	-0.140	-0.115	0.177	-0.166	0.202	0.205	1.000

Table 2-4 Results for the Determinants of ASEAN-4 Outward FDI from 2001-2012

	ASEAN-4 (overall)		**Malaysia**		**Singapore**		**Thailand**		**Indonesia**	
	Tobit	**RE**	**Tobit**	**RE**	**Tobit**	**RE**	**Tobit**	**RE**	**Tobit**	**RE**
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
lgdp	8.091 (3.013) ***	8.001 (2.910) ***	4.487 (3.432)	3.883 (3.236)	3.447 (9.837) ***	3.461 (9.636) ***	5.067 (1.033)	7.146 (9.178)	-2.370 (1.153)	-2.923 (1.137)
lpatent	4.478 (1.502)	4.278 (1.463)	4.891 (1.603)	7.131 (1.543)	1.085 (5.273)	9.768 (5.197)	4.485 (4.723)	5.181 (4.361)	4.339 (5.694)	4.829 (5.594)
lexp	3.286 (8.989) ***	3.310 (8.765) ***	3.107 (1.147) ***	3.243 (1.055) ***	2.632 (2.227)	2.562 2.207)	2.183 (5.281) ***	2.272 (4.781) ***	3.124 (3.596)	3.686 (3.512)
lopen	1.171 (4.842) **	1.175 (4.632) **	1.553 (5.019) ***	1.553 (4.796) ***	3.184 (1.663) *	3.166 (2.653) *	2.854 (1.453) **	2.854 (1.297) **	4.428 (1.994) **	4.736 (1.897) **
poli	-2.980 (1.224) **	-3.104) (1.185) ***	-3.042 (1.287) **	-3.092 (1.243) **	-9.611 (4.186) **	-9.811 (4.097) **	-5.784 (3.732)	-5.993 (3.417) *	6.926 (4.801)	6.115 (4.615)
lgs	-1.351 (7.423) *	-1.253 (7.373) *	-7.551 (8.512)	-6.286 (8.352)	-3.375 (2.673)	-3.155 (2.654)	-2.235 (2.805)	-9.824 (2.591)	2.700 (2.423)	2.881 (2.447)
lconflict	-1.397	-1.440	-3.059	-3.320	-2.142	-2.030	4.152	2.393	-3.581	-3.814

	(1.173)	(1.156)	(1.324) **	(1.264) ***	(4.083)	(4.056)	(3.937)	(3.675)	(4.123)	(4.123)
lcorrup	1.439 (6.107) **	1.409 (5.990) **	1.413 (6.543) **	1.411 (6.446) **	3.798 (2.096) *	3.750 (2.076) *	2.535 (2.034)	2.122 (1.907)	-9.663 (2.287)	-8.489 (2.278)
lore	3.540 (1.739) **	3.688 (1.667) **	2.973 (1.756) *	3.102 (1.687) *	1.054 (5.713) *	1.071 (5.553) *	7.004 (5.053)	7.719 (4.549) *	-4.751 (7.155)	-4.409 (6.981)
Obs	2404	2404	597	597	605	605	600	600	602	602
R-sq:										
Within		0.027		0.037		0.059		0.018		0.007
Between		0.141		0.398		0.341		0.485		0.190
overall		0.072		0.171		0.158		0.152		0.142
Log likelihood	-51754.35		-12518.75		-13389.94		-11934.68		-11860.98	

Notes: Standard errors are in parenthesis

****, **, * indicate that the coefficient is significant at the 1, 5 and 10% levels, respectively*

Table 2-5 Results for the Determinants of ASEAN-4 Outward FDI from 2001 - 2006 and 2007 - 2012 (Tobit Model)

	ASEAN-4 (overall)		**Malaysia**		**Singapore**		**Thailand**		**Indonesia**	
	Tobit 2001-2006 (3)	**Tobit 2007-2012 (4)**	**Tobit 2001-2006 (3)**	**Tobit 2007-2012 (4)**	**Tobit 2001-2006 (3)**	**Tobit 2007-2012 (4)**	**Tobit 2001-2006 (3)**	**Tobit 2007-2012 (4)**	**Tobit 2001-2006 (3)**	**Tobit 2007-2012 (4)**
lgdp	3.179	9.395	2.625	1.094	1.420	4.739	1.096	-2.727	-4.619	-5.563
	(1.201)	(7.013)	(1.439)	(7.477)	(4.177)	(1.902)	(3.097)	(2.138)	(5.884)	(2.434)
	***		*		***	**				
lpatent	5.242	1.252	6.165	3.208	1.260	3.028	9.027	1.369	3.394	4.423
	(6.023)	(3.858)	(6.333)	(3.872)	(2.201)	(1.267)	(1.391)	(1.203)	(2.825)	(1.292)
lexp	1.387	5.705	8.699	5.766	1.402	3.730	4.819	4.842	3.022	1.166
	(3.418)	(2.132)	(5.019)	(2.103)	(7.483)	(5.521)	(1.688)	(1.144)	(2.420)	(7.338)
	***	***	*	***	*		***	***		
lopen	6.203	1.194	8.285	2.199	1.761	2.901	7.675	4.813	2.711	4.767
	(2.229)	(1.002)	(2.209)	(1.032)	(7.929)	(3.221)	(4.411)	(2.921)	(1.037)	(3.433)
	***		***	**	**		*	*	***	
poli	-1.169	-6.841	-1.842	-6.594	-3.277	-1.915	-2.022	-1.105	3.593	-9.199
	(5.167)	(3.273)	(5.142)	(3.387)	(1.865)	(9.311)	(1.028)	(9.822)	(2.543)	(1.038)
	**	**	***	*	*	**	**			

lgs	-1.570 (2.946)	2.184 (1.478)	7.743 (3.477)	3.944 (1.641)	-4.186 (1.068)	2.736 (5.222)	4.583 (9.762)	4.652 (5.411)	1.245 (1.447)	1.908 (3.278)
lconflict	1.878 (3.956)	-2.234 (3.074)	-3.273 (4.588)	-7.553 (3.312) **	4.909 (1.431)	-7.130 (9.604)	5.562 (1.188)	2.221 (9.378)	-1.294 (1.968)	-9.636 (9.089)
lcorrup	2.319 (2.212)	1.013 (1.446)	4.266 (2.508) *	2.151 (1.487)	5.079 (8.021)	3.349 (4.543)	8.357 (6.716)	3.528 (4.473)	-6.228 (1.103)	6.585 (4.721)
lore	9.861 (7.650)	6.883 (3.732) *	3.551 (7.337)	5.560 (3.863)	3.210 (2.648)	2.009 (1.187) *	1.611 (1.517)	1.535 (1.146)	-1.789 (3.580	-1.444 (1.289)
Obs	1322	1082	329	268	331	274	331	269	331	271
Log likelihood	-26702.275	-23655.462	-6468.650	-5697.753	-6881.695	-6152.065	-6143.787	-5428.940	-6215.740	-5338.727

Notes: Standard errors are in parenthesis

****, **, * indicate that the coefficient is significant at the 1, 5 and 10% levels, respectively*

2.6 Conclusions

This chapter seeks to analyse the determinants of outward FDI from ASEAN. We are motivated to test whether the determinants are consistent with the mainstream theory of FDI. The hypotheses are developed largely based on the prior studies of outward FDI from developed countries or other bigger emerging economies. Two econometrics models are used to ascertain robust findings and explain the determinants of outward FDI from this region.

Several determinants were consistent with findings in the literature. In terms of the market characteristics, the result is conventional and consistent with most of the mainstream literature. Even though market size did not appear to be significant to all countries in question, other characteristics imply that market-seeking is a principal motivation for outward FDI from ASEAN-4. Despite the limited previous research that incorporates all four ASEAN member states in one study, the findings on individual countries confirmed the importance of market-seeking in fostering ASEAN investment (Ellingsen, Winfried, and Peter, 2006; Goh and Wong, 2010, 2011; Ismail, 2009; Kueh et al., 2008; Kueh et al., 2012; Saad et al., 2014)

Although the findings on resource seeking can be refined further by incorporating other variables that may produce more reliable result, the current study affirms that resource seeking is also important to this region. This is in line with some prior research on individual countries with similar findings (Masron and Shahbudin, 2010; Yean, 2007)

For institutional variables, the present study demonstrates that the host country individual character is context specific. Therefore, there is no uniform pattern of institutional variables that can explain the motivation of outward FDI from this region. Nevertheless, this is open for further investigation. The inclusion of additional institutional characteristics such as government intervention may generate different findings. Overall, this study offers the opportunity to examine how a group of small emerging countries from a large region fits with the growing body of theoretical and

empirical literature of outward FDI that was previously dominated by developed and larger emerging countries.

From a different perspective, this study also highlighted an issue requiring further investigation. One important issue is the reliability of corruption index as the variable that denotes the corruption level in the host country. Other than that, we are quite confident in the robustness of these results as they are generally similar across the two models. Likewise, given more time, an extensive effort should be made to include and test as many variables as possible for solid findings and inference of the results.

CHAPTER 3

3 Location Determinants of Outward Foreign Direct Investment Of ASEAN: A Regional Analysis

3.1 Introduction

Chapter Two of this thesis has identified the determinants of outward FDI from the macro perspectives of the host country and how the main motivation of FDI influences the investment decision by ASEAN-4. In order to provide better understanding into the study of the determinants of outward FDI, this chapter analyses the importance of location choice in influencing investment decision.

The recent boom in theoretical and empirical research on outward foreign direct investment (FDI) determinants reflects its significance in economic development at the national, regional and global levels. FDI has been acknowledged as the driving force that promotes and shapes the patterns of economic development and international flow of goods, capital and technology (Dunning, 2003). The direct outcome of the phenomenon has driven governments and MNEs to constantly prepare to reach decisions that will favour their entities. In considering outward FDI, there are three basic questions that are important: (i) why is the home market not enough? (ii) which entry strategy is most favourable for an investment? and (iii) where is the best location for the investment? These questions are in line with the arguments by Buckley and Casson (1976) which considered the general theory of FDI to be derived from two main principles: 1) the choice of least cost location is paramount in deciding to go abroad; 2) firms would internalize until the costs outweigh the benefits. The intense competition of today's business environment requires in-depth understanding on many factors that influence outward FDI. Generally, the decision to invest in another country is driven

by three main motives 1) new market-seeking; 2) natural resource asset seeking; and 3) strategic asset seeking (Narula and Dunning, 2000). More importantly, the motives will depend on the location determinants that exist in the potential host countries. It is probably fair to assume that location choice is the most common key decision when it comes to cross-border investment.

What determines the direction of FDI has always been an important subject among international business scholars, as emphasised by Dunning (2009). Essentially, various methodologies have been used by previous researchers to generate the best means to explain FDI location choice based on the rationale and motives for FDI. In the earlier work, empirical studies of FDI location choice centred on developed economies as the host countries, for example Bagchi-Sen and Wheeler (1989), Coughlin, Terza, and Arromdee (1991), Friedman, Gerlowski, and Silberman (1992) and Woodward (1992) focusing on the United States, while Hill and Munday (1991) focused on the United Kingdom. Using a conditional logistic model, Coughlin et al. (1991) explored the determinants of FDI locations in the states of US, between 1981 and 1983. Several variables were established as the main factors that attracted FDI, such as higher per capita income, higher density of manufacturing activities, higher unemployment rates, extensive infrastructures and larger promotional expenses. In contrast, higher wages and higher tax rates had deterred FDI. Wheeler and Mody's (1992) study of outward FDI by US manufacturing MNEs to 42 host countries from 1982 to 1988, identified the importance of strong aggregate economies with better infrastructure coupled with attractive tax incentives playing as important in determining location choice. Mody and Srinivasan (1998) found that some similar country characteristics, such as low wage inflation, low country risk, good infrastructure and an educated workforce attracted investments from Japan and the United States. The attractiveness of a taxation package in the host country has also become one of the main determinants of location choice. Haufler and Wooton (1999) established that when choosing between two countries with unequal size but similar tax incentives, firms would prefer to locate the investment in a larger market.

Besides focusing on the developed countries, previous research on the importance of locational determinants also examined analysis on a cross-national level. Among other determinants that influences FDI location decisions are host market size,

government support, the level of economic development, infrastructure, regional growth characteristics and other regional differences including agglomeration effects and information costs (Coughlin et al. 1991; Dunning 2009; Wheeler and Mody 1992). These studies have signified that regional differences play an important role in determining locational decision. To augment these findings, several other studies have also reported similar outcome, such as the study by Head, Ries and Swenson (1995), which examined 751 Japanese manufacturing companies in the United States. They reported that industry-level agglomeration benefits play an important role in location decisions. In similar studies, it was established that Japanese investors prefer locations with strong market characteristics and low unionization rates while high taxation deterred investment (Woodward, 1992). The previous literature in this area generally dealt with three groups of variables. The first group consist of variables that concern market characteristics such as market size and growth. The second group control for geographical characteristics of countries or country pairs, which concern variables such as distance, adjacency and in which region they belong. Third, variables related to institutional determinates, such as political stability, government policies, common languages and employment rates are among other variables discussed. Therefore, in this study, we will analyse and highlight several patterns and characteristics that determine location determinants in the selected host countries for ASEAN-4.

Whether the characteristics of a host country matters for the home country's outward FDI is primarily an empirical question. Some of the recent literature focuses on country heterogeneity, while the earlier studies highlighted the distinction between horizontal and vertical investments. Where horizontal FDI is generally defined as market-seeking, the latter focus is more on strategic asset seeking. In market seeking FDI, business will locate abroad to save on transportation costs and to be close to the foreign customers. The product will be similar to the one produced at home. This will mean that FDI will substitute for exports, and foreign labour will become the domestic labour, resulting in cost reduction. Motivated by fragment of productions[4] (Helpman, 1984) vertical FDI occurs when business moves abroad by breaking up the value chain

[4] Fragment of production refers to single-plant firms that fragment their production process into different stages based on differences in factor prices across countries (Helpman, 1984)

and relocating their production to a foreign location, usually to take advantage of the low labour cost in the host country.

Based on the case of ASEAN, this study specifically focuses on the four original members of ASEAN, that is, Malaysia, Singapore, Thailand and Indonesia. This research seeks to complement and add to the limited literature on location determinants of outward FDI particularly from ASEAN. To date, only the study by Karimi, Yusop and Hook (2009) discusses the FDI location decision in ASEAN. Their study focused on inward investment rather than outward FDI. The motivation of this chapter is, therefore, to explore the location determinants of outward FDI from ASEAN, based on the perspective of regional characteristics and to provide explanations related to the motivations of FDI (Dunning and Lundan, 1993), even though it is probably not possible to arrange location-specific decisions into a uniformed theoretical pattern.

This chapter differs from existing empirical works by Karimi, Yusop and Hook (2009) in the following aspect. Firstly, the employment of panel data models with data for 71 host countries and four home countries during the period of 2001-2012 is totally different from the TOPSIS (Technique for Order Preference by Similarity to Ideal Solution model) used by them. By using mathematical simplicity, their model is based on the concept that the chosen alternative should have the shortest geometric distance from the positive ideal solution (PIS) and the longest geometric distance from the negative ideal solution (NIS). The way TOPSIS is presented makes it impossible to capture changing trends and variations of FDI and factors that determine its growth over time. Secondly, beyond the use of panel data, the use of Tobit Model in this research is empirical to account for missing data, hence giving accurate estimation.

The main contribution of this study is the identification of location determinants of outward FDI from ASEAN at the regional level and its distinctive characteristics, which may assist future decision makers in making strategic decisions.

The remainder of the chapter is organised as follows. Section 3.2 briefly reviews the connection between regional integration (RI) and FDI and how RI influence the choices of location determinants. Section 3.3 develops the hypothesis and defines

chosen variables. Section 3.4 elucidates the data and methodology used. Section 3.5 presents the empirical analysis and results and section 3.6 concludes.

3.2 Regional Integration and FDI

According to the Business Dictionary (www.businessdictionary.com), regional integration is defined as "an arrangement for enhancing cooperation through regional rules and institutions entered into by states of the same region". Usually, an integration is formed with a specific intention to enhance the cooperation within the region. In most cases, a regional integration agreement (RIA) is formed to foster economic growth, reduce poverty, broaden regional security and stimulate trade or even to serve political purposes. Some examples of famous regional integration are ASEAN, EU (European Union) and NAFTA (The North American Free Trade Union). Traditionally, there are three types of RIA;

1) Custom Union (CU) – It is an agreement between two or more countries to remove, reduce or eliminate trade barriers and custom duty among members. A custom union generally will have a standardised tariff structure for non-members. One example of CU is EEC – European Economic Community.

2) Free Trade Agreement (FTA) – FTA is an agreement between two or more countries to allow free trade between its member states and maintain separate barriers with other countries. Good and services can move freely (or with very few barriers) within member states while maintaining separate policies when dealing with non-member countries. FTAs do not allow free movement of factor of productions among its members. One example of a FTA is ASEAN.

3) Common Market – Another form of RIA is a common market, where a group of countries (normally within the same region) form an association to promote duty free trade and free movement of factors of production among its members. The European Common Market (EEC) is the classic example of common market.

Table 3.1 summarised the differences of RIA base on the above explanation:

Table 3-1 Type of Regional Integration

Features/Type	**Custom Union**	**FTA**	**Common Market**
Free Trade among members	√	√	√
Factor mobility across borders	×	×	√
Common economic policies among members	×	×	×
Common external barriers with non-members	√	×	√

The proliferation of RIA is associated with the mission to improve economic growth and foster FDI among members. Nevertheless, questions arise as to how this integration affects the member countries, and why certain regions are more efficient in attracting FDI than others. Over the years, scholars have been trying to find the theoretical and empirical evidences that can link and integrate the importance of RIA and FDI. The question now is how by considering both, a member country can reap the benefits offered by the RIA. There is a consensus among scholars that regional integration spearheads further internationalisation, either by extra-regional or intra-regional FDI (Velde and Bezemer, 2006). In recent years, there has been an increasing amount of literature that attempts to explain the relationship between RIA and FDI and how countries (members and non-members) can exploit the benefits. This relationship issue has not only generated interest among scholars but has also become a feature in the world political agenda. RIA is considered as a means to put the country on the global and regional FDI's map. The question is whether this is really the case?

There are often two schools of thoughts in relation to any subject. This case is no exception. Using the three countries, three firms model, Motta and Norman (1996) analysed the effect of regional integration with FDI activities. Their conclusion was

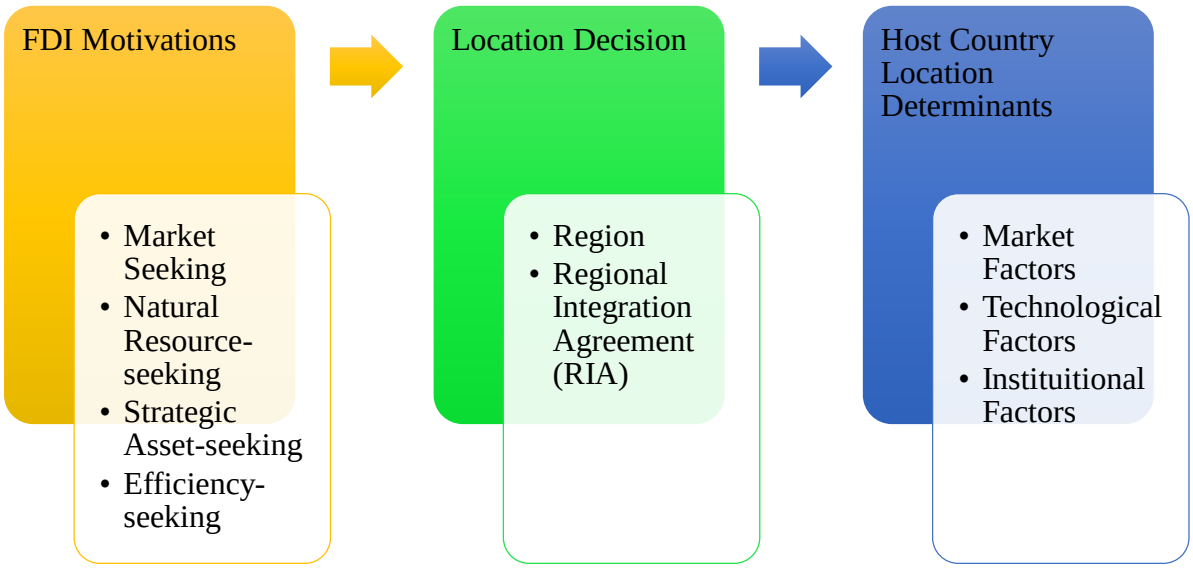
that RIA helps to improve market accessibility, hence the allure to non-member countries to invest in the integrated blocs. Similarly, Blomström and Kokko (1997) used case studies to analyse the effects of regional integration and foreign direct investment among three RIAs. The case studies are structured to cover three types of regional integration, that is, 1) North-North Integration (Canada joining CUSFTA); 2) North-South Integration (Mexico's accession to NAFTA); and 3) South-South Integration (MERCOSUR). They reported that besides member states' location advantage, environmental change from the integration agreement also stimulated FDI. Furthermore, once the agreement is aligned with domestic liberalisation, the effect of FDI will be more apparent and promote macroeconomic stabilisation among members.

Several studies have focused on ASEAN, regionalisation, FDI and poverty reduction. Mirza, Giroud, Jalilian, Weiss, Freeman and Than (2002) have argued how regionalisation can stimulate FDI in ASEAN, and consequently help in alleviating poverty within the region. According to them, four types of direct effects from ASEAN regional integration, i.e. the consumption multiplier, the value chain multiplier and spill-over effects, have had a profound impact on member states in combating poverty. They also argue that to overcome poverty and equalise development between member states, a positive attitude toward synergistic investment opportunities is key. Bende-Nabende, Ford and Slater (2001), also investigate the spillover effects of FDI to ASEAN. They found that, RIA did encourage FDI into the region and consequently stimulated economic growth, especially through the mobility of human factors and knowledge/technological spillover. Nevertheless, unlike the findings by (Mirza *et al.*, 2002), they stressed that, the dispersal of inward FDI was not even but was to the advantage of the more developed member states within the region. This finding was later supported by Yeyati, Stein and Daude (2003) who affirmed that RIA indeed influence FDI, however, the main beneficiaries will be the member states who possess attractive investment packages (among others), hence the FDI is not evenly distributed. Therefore, while being a member of a RIA is likely to generate more intra and extra-regional FDI, the country specific characteristics and type of regional grouping also plays a significant role in determining FDI (Velde and Bezemer, 2006). It bears emphasis that as RIAs are proven to significantly effects FDI, they will simultaneously trigger either investment creation or investment diversion, and thus become a substitute or a complement of trade (Kreinin and Plummer, 2008).

Conversely, Balasubramanyam, Sapsford and Griffiths (2002) argue that RIAs do not determine the magnitude and direction of FDI, but instead, it is determined by the characteristics of both home and host countries. Balasubramanyam et al., (2002) used FDI flow as the dependant variables with 381 trades data covering EU and NAFTA in the mid-1990s. In order to ascertain the findings, they used a gravity model with three independent variables, including gross domestic product (GDP) to denote income level of the country, population and distance. They claimed that their initial findings showed a strong connection between RIA and FDI, but with the inclusion of capital cities in the model, where some are located 3000 km apart, the result tended to become less significant. Furthermore, the addition of the economic size for both the home and host countries dampened the result. Therefore, they concluded that RIA is unlikely to affect FDI. Focusing on Mercosur, ASEAN, SAARC and SADC, Kubny, Molders and Nunnenkamp (2008) found that members states are unlikely to have been obtaining equal shares of FDI. Hence, they concluded that RIA is not the sole determinant that attracts FDI to the region, however, the characteristics of the individual country matters most. They also maintained that, in the case of Brazil, Russia, China and South Africa, RIA played a minor role in fostering FDI. Finally, scholars unanimously agree that the magnitude of RIA and FDI makes it too broad to generalise.

3.3 Hypotheses Development

Figure 3-1 Conceptual Framework



(*) Arrows do not represent causal relationship but instead used as a reasoning line following the study.

Figure 3.1 illustrates the integrative conceptual framework for hypotheses building in the study. As shown in Figure 3.1, we started by acknowledging the importance of the location decision in international businesses. This study focuses on analysing the location determinants that may have influenced the outward investment decision by ASEAN-4. ASEAN-4 in this context consists of four South East Asian countries, namely Malaysia, Singapore, Thailand and Indonesia, which are the founding members of ASEAN. Grouped together, these countries have demonstrated their competitiveness in the international business arena. This was evident during the 2008 global economic crisis; these countries were resilient and they managed to record an average annual GDP growth above the global average. The combined growth rate of the region is 4.7%, as compared to the world average of 3.8% (The ASEAN Secretariat, 2012). The robust performance of the region suggested that the region is economically expanding in many ways. As discussed in the previous chapter, the confluence of factors that motivate outward investment from ASEAN-4 are primarily market-seeking motivations. In this chapter, we want to establish that in choosing which host countries to invest, the choice of location is paramount in determining the best investment strategy.

The literature reveals that FDI responds to extensive stimuli. In ensuring that our econometric analysis is manageable and reliable, we used widely acknowledged variables, sorted into three main categories, namely, market factors, technological and labour force, and institutional factors. As discussed in the earlier chapter, the primary motive for outward FDI from ASEAN-4 is market seeking. Empirically, in order to understand market-seeking, it is necessary to understand market characteristics. The inclusion of market size is twofold. Firstly, market size is the most frequently acknowledged variable to motivate of outward FDI. Secondly, as noted in the previous chapter, market-seeking is ASEAN-4's main FDI motivator. In this study, we used GDP per capita (*GDPP*) as the proxy to ascertain market size. From the previous chapter, we know that ASEAN-4 outward investment is generally attracted by market size. In this study, we want to establish whether the prosperity of the market plays any role in determining investment location. One of the advantages of a rich market is the availability of good education, which can later transform into skilled manpower. As Shikher (2014) highlighted, there are four reasons why rich countries have comparative advantages in terms of availability of education; 1) Skilled labour is relatively cheap with advanced and quality education; 2) Innovation proceeds at an extremely fast rate compared to other countries; 3) There is fast technology adoption due to the availability of basic education; and 4) Higher-quality management technology. Workers with basic education also increase the capacity to absorb technology transfer (Talpos and Enache, 2010). Therefore, we argue that the choice of rich market is an important location determinant for outward FDI from ASEAN-4.

To support this analysis, we also include market openness to gauge the importance of selecting locations with less cumbersome administrative processes and rigid regulations. We assume that MNEs from emerging countries, such as ASEAN-4, mostly lack international experience in cross border investment, considering their late involvement in international business, which was previously dominated by firms from developed countries. Earlier findings also acknowledged the fact that the most direct involvement from ASEAN-4 was the continuation of exports. Hence, the incorporation of export variables comes into the picture to reinforce that idea. We hypothesised that in determining the location, having prior market knowledge is important in order to minimise start-up costs. Based on these arguments, we formulate the following hypotheses:

Hypothesis 1a: Host region's market characteristics will play an important role in the FDI location decision by ASEAN-4 in different regions.

Hypothesis 1b: ASEAN-4 FDI is attracted to big and rich markets with liberal investment policies.

Hypothesis 1c: Outward FDI from ASEAN-4 is a continuation from exporting.

While market characteristics are an important factor in explaining FDI, the dynamism of international investment also acknowledges technological factors as being equally important. One of the key issues in international business is how firms exploit their existing assets and explore new assets in host countries. Firms engage in outward FDI in a developed country not only when they possess exploitable firm-specific advantages but especially when they intend to seek technology and skills that are not available in the home country (Makino, Lau and Yeh, 2002). In considering overseas investments, it is necessary to choose the potential location that permits the optimum use of technology (Narula and Dunning, 2000). Either to exploit or transfer the host country's technology, both need consideration and are essential in deciding location for investments. Following the importance of technology, the availability of labour is seen as a complementing factor. To ensure technology can be transferred or adopted (Talpos and Enache, 2010), a certain level of knowledge and skills are required among the labour force (Zhang, 2001). Therefore, in choosing a location for outward FDI, the readiness of labour with higher human capital is essential (Ho and Ahmad, 2011). This view is buttressed by Na and Lightfoot (2006) and Zhang (2001) who argue that FDI is attractive if the location has more qualified human capital. On the contrary, emerging MNEs also synonymous with a lack of recognisable brand names and modern management-marketing know-how, and to some extent outdated technological equipment. Therefore, while conventional theory suggests FDI as a firm's attempt to exploit firm-specific asset, firms form emerging markets tend to invest abroad to gain access to technological and management know-how. In this study, we examine the choice of location by ASEAN-4 in different regions. Some regions consist of more developed nation than others. It is, therefore, important to note, with the exception of Singapore, Malaysia, Thailand and Indonesia are considered as emerging nations. Hence, from the technological perspective, the motivation to invest in another country can either be to transfer technology or to seek new technologies. In other words,

investments in developed nations, could be driven by the need to seek for the new technology, while investment to other emerging nations or less-developed nations, could be to transfer the current technology. Therefore, we propose:

Hypothesis 2: FDI to developed regions is motivated by technology seeking, while FDI to other emerging countries (or less developed countries) is motivated by technological exploiting.

The previous literature on location determinants of FDI focused on the importance of institutions. Institutions are defined as the "rules of the game" which include both formal (regulatory) and informal (normative and socio-cognitive) categories (Scott, 1995). In an organisation, the formal and informal rules determine the socially acceptable patterns of its structures and actions (DiMaggio and Powell, 1983). Firms need to adopt the business models, practices and structures established in the organisational field in order to gain legitimacy. Institutional theory suggests that coercive pressure may initiate FDI and can influence or constraints the strategic choices of firms (DiMaggio and Powell, 1983). In the case of ASEAN-4, coercive pressure is mainly exerted by domestic competition in the home market, strong government support and the characteristics of the host country. While engaging in FDI, firms are require to conform to institutional process in both home and host countries. Cui and Jiang (2012) highlighted three types of institutional pressures that influencing the FDI strategic decisions of firms;

1. Within the home country – firms are subject to home government's regulatory restrictions
2. In the host country – firms are subject to host country regulatory restrictions
3. Normative pressure from host country industries and stakeholders

Peng (2005) and Wright *et al.* (2005) asserts that the "rules of game" in the host country significantly shape firm strategies such as foreign market entry. It is generally argued that some of the institutional determinants give positive effects to the countries' wellbeing and boost FDI as illustrated in works of Acemoglu, Johnson and Robinson (2004); Kaufmann and Kraay (2002); and Rodrik, Subramanian and Trebbi (2004), which claimed that good economic institutions, namely property rights and rule of law,

attract more investment and improve resource allocation. Besides property rights, transparent political conduct, stable political condition and sound government support also encourage FDI. On the other hand, poor institutions, such as, corruption and political risk (Asiedu, 2002) will increase the cost of doing business, hence deterring FDI. Scholars also argues that institutional frameworks in emerging economies differ greatly from those in developed economies (Khanna, Palepu and Sinha, 2005; Meyer and Peng, 2005; Wright *et al.*, 2005; Gelbuda, Meyer and Delios, 2008)

Regional institutions mainly refer to various aspects of government institution such as government intervention in private sector, political stability, government protection of property rights and government corruption in a region. Regions with good public institutions are characterised by transparent political conduct, stable political condition and good governance. On the contrary, regions with weak public institution are said to have heavy government intervention, bad governance and severe corruption. A number of papers focusing on either cross-country or within-country institution (Acemoglu, Johnson and Robinson, 2004; Bruce A. Blonigen, 2005; Buckley *et al.*, 2007) have produced consistent results that high-quality public institutions contribute to good economic performance and weaker institutions deter investment and distort economic growth.

Although naturally, investors prefer a location with good institutions, recent findings on FDI from the South have produced different conclusions. Aleksynska and Havrylchyk (2013) highlighted three important findings related to institutional matters and FDI from the South. Firstly, motivated by asset-seeking, countries from the South prefer host countries with better institutional distance because established brands, the latest technologies and intellectual property are likely to be found in a good institutional environment. Secondly, even though poor institutions deter investment, majority of investors from the South (mostly known for its poor institutions except for Singapore and few other countries) were drawn to invest in the host countries that have a similar institutional environment or slightly worse institutions. These findings reaffirmed the study by Buckley et al. (2007) which asserts that Chinese firms prefer countries with higher political risks. Thirdly, in order to mitigate higher sunk cost in FDI, investors will favour a location that possesses stable government institutions which in turn promote sound financial dealings and transparent processes. Nevertheless, these

assertions are mostly true for developed countries (Wheeler and Mody, 1992), as the literature on emerging countries is still scarce. For this research, few variables are used to establish the important of institutions in determining location choice of FDI from ASEAN-4 including political risk, government stability, internal conflict and level of corruption. The inclusion of political risk, government stability and conflict concerns the degree of government intervention in the regions' economic activities. Vulnerable political climate leads to unstable government and causes internal conflict, therefore creates poor/bad governance. Corruption[5] on the other hand measures the efficiency of public institutions. Endemic corruption increases the cost of doing business and, thus, diminish FDI activity (Wei, 2000). Dunning and Lundan (2008) highlighted few relevant studies that confirm the negative relationship between corruption and FDI. Among the studies include Shleifer and Vishny (1993) and Wei (2000) who argue that corruption and taxation have negative effects on FDI, Habib and Zurawicki (2002) found a negative relationship between corruption and flows of FDI. Therefore, we propose the following hypotheses:

Hypothesis 3a: Strong host country institutions are associated positively with ASEAN-4 outward FDI.

Hypothesis 3b: The host country's poor governance and severe corruption are associated negatively with outward FDI from ASEAN-4

[5] Corruption is commonly defined as the use of a public position for private gain.

3.4 Data and Methodology

This chapter focuses on analysing whether the ASEAN-4 has similar motives and similarities in choosing FDI location across the seven regions that they are involved in outward FDI. The originality of this work comes from the fact that we built and exploited econometrically the database, which includes data on outward FDI and its potential locational determinants disaggregated at country and regional level. The motivation for studying the location determinants of outward FDI from a regional point of view is that, we predict the outward FDI determinants may be localised and differ across the region, hence, regional analysis is more appropriate to obtain better assurance and understanding. Dunning, Hoesel and Narula (1997) assert that regional integration can affect the underlying determinants of FDI. We also argue that each regional grouping, or each country in each grouping, does not have the same capacity to attract FDI. The absence or limited research on regional analysis in the literature, especially FDI from Southeast Asia, provides a niche for exploring this area.

For the purpose of this study, the dataset of yearly observations for four ASEAN countries for the period of 2001 to 2012 is used. Unless stated otherwise, the required data for the selected countries were obtained from World Development Indicators and UNCTAD. The dependent variable for this study is the bilateral data on outward FDI stocks in current USD. This variable is available for the four home countries (ASEAN-4) and 70 host countries that have received direct investment from one or more countries in ASEAN-4. The host countries are being grouped according to regional location as per classification by the World Bank list of economies, as shown in Table 3.2.

Table 3-2 List of Host Countries and Regional Grouping

Region	Name	Countries
1	**East Asia and Pacific**	Cambodia, Indonesia, Myanmar, Philippines, Singapore, Thailand, Vietnam, Brunei, Laos PDR, China, Hong Kong, Japan, South Korea, Taiwan, Australia, New Zealand
2	**Europe**	Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom, Kazakhstan
3	**Latin America & Caribbean**	Argentina, Brazil, Costa Rica, El Salvador, Ecuador, Mexico, Panama, Peru, Venezuela
4	**Middle East & North Africa**	Algeria, Egypt, Israel, Morocco, Saudi Arabia, Tunisia, United Arab Emirates,
5	**North America**	Canada, United States
6	**South Asia**	Bangladesh, India, Pakistan
7	**Sub Saharan**	Malawi, Mauritius, Nigeria, Uganda, Zambia

Our interest in studying the level of investment activities between countries encouraged us to use outward FDI stocks rather than FDI flow. This is because stocks are the closer proxy to multilateral activity than flows (Stein and Daude, 2007). To clearly explicate the location determinants, we grouped the independent variables into three main categories; 1) market factors which consists of variable GDPP, export, trade openness and ore; 2) technological factors including patent and labour force; and 3) Institutional factors inclusive of political risk, conflict, corruption, common language and distance. The details of the variables are listed in Table 3.3.

Table 3-3 List of Variables and Data Sources

Variable	Measurement	Data Sources
Outward FDI (Dependent Variables)	Stock of outward FDI from home country (ofdis)	United Nations Conference on Trade and Development (UNCTAD)
GDPP	Host Country GDP per capita	United Nations Conference on Trade and Development (UNCTAD
Patent	Total (resident plus non-resident) annual patent registration in host country	World Intellectual Property
Export	Home country export to host country	World Development Indicator (WDI)
Trade openness	Percentage of exports and imports to host GDP	World Development Indicator (WDI)
Political risk	Host country political globalization index	International Country Risk Guide (ICRG) PRS 2013
Government Stability	Host country government stability index	International Country Risk Guide (ICRG) PRS 2013
Conflict	Host country internal conflict index	International Country Risk Guide (ICRG) PRS 2013
Corruption	Host country corruption index	International Country Risk Guide (ICRG) PRS 2013
Ore	The ratio of ore and metal exports to merchandise exports of host country	World Development Indicator (WDI)
Labour Force	Host country labour force	United Nations Conference on Trade and Development (UNCTAD)
Common Language	Main Business language used by home and host country	Author's compilation
Distance	Geographic distance between the capital of home and host country	https://www.distancecalculator.net/

The Tobit Model (or censored normal regression model) is a model devised by (Tobin, 1958) in which it is assumed that the dependent variable has a number of its values clustered at a limiting value, usually zero. The Tobit technique uses all observations, both those at the limit and those above it, to estimate a regression line, and it is to be preferred, in general, over alternative techniques that estimate a line only with the observations above the limit. The application of a Tobit model is appropriate because for some observations, the value of outward FDI is zero (Banga, 2006; Bhaumik, Driffield and Pal, 2010). We used log specification in the estimation as it has typically been used in the empirical literature as the best method for data adjustment. However, log specification creates another problem; by taking logs, any zero values would be dropped and hence will distort the estimation. Dealing with zero values is typical in gravity equations. There are ways to deal with this problem such as by simply eliminating the observations in which the variable take a value of zero (Rose, 2000). However, this approach may cause misrepresentation of the estimation as the zero may carries important information for the research. Thus, to make sure that the zero observations are properly treated in our sample and mitigate the estimation bias, we used log (1+FDI) instead of log (FDI) (Eichengreen and Irwin 1995).

We based our analyses on a balanced panel data based on the above description. The reason for using panel data as per the guidelines by Hsiao (2003) and Baltagi (2013) are as follows; 1) Panel data enable user to control for heterogeneity; 2) The ability to control for multicollinearity enables panel data estimation to produce more informative data, less collinearity among variables, more degree of freedom and more efficiency, 3) Since the study of outward FDI requires dynamic estimation, panel data is well suited for that purpose. Panel data allows researchers to observe changes during the process and enables the researcher to determine the beneficiary of the development, and 4) lastly, panel data allows the user to identify and measure the effects that are not detectable in pure cross section or time series analysis.

Under these circumstances, the estimation for the panel model is as follows:

$$lofdi_{it} = \beta_0 + \beta_1 lgdpp_{it} + \beta_2 lpatent_{it} + \beta_3 lexp_{it} + \beta_4 lopen_{it} + \beta_5 lpoli_{it} + \beta_6 lgs_{it} + \beta_7 lconflict_{it} + \beta_8 lcorrup_{it} + \beta_8 lore_{it} + \beta_8 ldis_{it} + \beta_8 labor_{it} + \beta_8 lcommonlang_{it}\, \mu_i + \varepsilon_{it}$$

(Equation 1)

Where *i* refers to *i*th country, *t* refers to time periods, *GDPP* measure market potential (Buckley et al., 2007; Globerman and Shapiro, 2008) and is expected to have a positive effect on the probability to choose the investment location. *PATENT* registration is the proxy for efficiency/strategic assets, which are among the important location determinants for emerging markets (Pradhan, 2011). The inclusion of export (*EXP*) and openness (*OPEN*)[6] (Chakrabarti, 2001; Pradhan, 2011) in this estimation recognises that FDI from emerging markets normally will start from exporting. On the other hand, *LABOUR* force (Bende-Nabende et al., 2001; Wheeler and Mody, 1992) is instrumental to measure the need to seek for factors of production, hence, it is included. After establishing a foothold in the host country and given the liberty of trade, FDI eventually follows. The incorporation of four institutional qualities namely political risk (*POLI*), government stability (*GS*), internal conflict (*CONFLICT*), and corruption index (*CORRUP*) is paramount to understanding its influence on location choice by investors.

The variable *ORE* is added to control for natural resource-seeking FDI. As ascertained in Chapter Two, besides market-seeking, access to natural resources is another important factor in determining outward FDI from ASEAN-4. Except for Singapore, ASEAN-4 is commonly known for its abundance of natural resources. Aleksynska and Havrylchyk (2013) asserted that part of the investment from the South[1] is driven by natural resource seeking, even though most of the emerging countries have abundant natural resources. Hence, it is necessary to investigate how seeking for natural resources plays a role in determining location for outward investment from ASEAN-4. The employment of the variable *ORE*, which is derived from the ratio of ore and metal exports to merchandise exports (Beule and Duanmu, 2012), is to proxy natural resources endowments in the host country. Further, following some other literature (Aleksynska and Havrylchyk, 2013; Stein and Daude, 2007; Yeyati et al., 2003), the inclusion of the dummy variable common language (*COMMONLANG*) is relevant to understand whether having use the same language is material to FDI. In principle, having a common language will help reduce communication barriers, hence lowering

[6] Trade openness is measured by exports and imports divided by GDP

[1] In this chapter, we used the definition of South by UNCTAD. South includes developing, transitions economies, and six high-income non-OECD countries (Aruba, Brunei, Hong Kong, Kuwait, Singapore and the UAE). On the other hand, North is defined as 22 high-income OECD countries.

the transaction costs. The inclusion of another dummy variable, *DISTANCE*, is to ascertain the influence of distance in choosing outward FDI from ASEAN-4.

For robustness test and consistency of the result, we later run the same estimation on a different set of data (Model 2). Here the data is arranged according to its Regional Integration Agreement, as shown in Table 3.4.

Table 3-4 Regional Integration Agreements (RIA)

RIA	Creation	Members
EU (European Union)	1957	Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, UK, Austria, Finland, Sweden, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia
NAFTA (North American Free Trade Agreement)	1989	Canada, USA, Mexico
MERCOSUR (Mercado Comun del Sur)	1995	Argentina, Brazil, Paraguay, Uruguay
ASEAN (Association of Southeast Asian Nations)	1992	Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam, LAOS, Cambodia, Myanmar
AC (Andean Community)	1969	Bolivia, Colombia, Ecuador, Peru, Venezuela
ANZCERTA (Australia-New Zealand Closer Economic Relations Trade Agreement)	1983	Australia, New Zealand
SAFTA (South Asian Free Trade Area)	2004	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
CACM (Central American Common Market)	1959	Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua

3.5 Empirical Analysis and Results

The data consists of four home countries and 70 host countries which had bilateral trade for the period from 2001 – 2012. As mentioned earlier, these data are drawn from various sources, some of which may present problems in missing or insufficient data. Descriptions of the variables and information on data sources is presented in Table 3.3, while Table 3.5 shows the descriptive statistics. The choice of four home countries (from a total of ten ASEAN countries) and the time frame is largely determined by the extent to which sufficient data is available to produce consistent and robust estimations. With a total of 3408 observations, the application of panel techniques is likely to yield more efficient parameter estimates than separate single country equations, hence minimising the misspecification problems. Furthermore, using Tobit regression instead of linear regression will yield unbiased coefficient estimations for each variable.

Table 3-5 Descriptive Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
lofdi	3408	6.2510	8.4192	0	23.3263
lgdpp	3408	9.0023	1.5541	3.2619	11.6373
lpatent	3408	6.4846	3.6479	0	13.3890
lexp	3408	12.3485	2.8467	0	18.8984
lopen	3408	4.2589	0.9121	0	7.0892
lpoli	3408	3.8722	1.3785	0	4.5995
lgs	3408	2.1289	0.4790	0	2.5257
lconflict	3408	2.2560	0.5011	0	2.5649
lcorrup	3408	1.2959	0.4084	0	1.9459
lore	3408	1.3038	0.9064	0	4.4659
ldis	3408	8.3969	0.7878	5.2846	9.4139
llabor	3408	15.9906	1.6319	11.9830	20.4949
commonlang	3408	1.5775	0.4940	0	1

Table 3.6 reports the result of the first model, where the host countries are grouped according to the region. GDPP is statistically a significant estimator for all regions except for South Asia. With positive sign, the result suggests that, FDI from ASEAN-4 is not only looking for a large market, but also a big and rich market. As per the earlier explanation, a rich market exhibits the availability of skilled labour, consumer and technology readiness, which are crucial in ensuring market competitiveness. Mirza *et al.*, (2002) asserted that a regional approach helps the member states to elevate individual country characteristics, such as enhancing its market size to overcome the encumbrance of small markets. Market size is an important determinant of outward FDI, especially investment from an emerging market where market seeking is fundamental. Market size is also positive and significant in Model 2 (Table 3.7). Except for ANZCERTA and CACM, for the rest of RIA, market size has a positive and significant sign, which implies that outward FDI from ASEAN-4 is indeed seeking bigger and sustainable markets.

Another variable to affirm market seeking as a robust determinant for outward FDI location choice from ASEAN-4 is export. Based on Model 1, export is only positive and significant for Region 1 (East Asia and Pacific) and Region 6 (South Asia). The result implies that export has become a platform for investment from ASEAN-4 when the investment is intra-regional (within ASEAN) or between emerging economies. In other words, export was the investment platform for investors from ASEAN-4 before they decided to shift their business to a new location within the region or between regions which share a similar economic background, such as India and Bangladesh. As FDI from emerging markets is normally market seeking, the significance of this variable is expected. Liu, Buck and Shu (2005) affirmed that, export may be the reason for the establishment of overseas facilities that induce outward FDI. The possible explanation as why only Region 1 and Region 6 matter in terms of export variable is probably because of the distance and market familiarity. As Region 1 and Region 6 are closer to ASEAN-4, an increase in export can provide some assurance of the potential business in the foreign market. This will somehow reduce the uncertainty and risk from losing capital from investing abroad that is far from the home country. The robustness of export as determinant of FDI from ASEAN-4 when investing intra-

regional or to the other emerging regions is confirmed in model 2. In Model 2, export is significant for ASEAN itself, followed by SAFTA and Mercosur.

The importance of trade liberalisation in boosting outward FDI from ASEAN-4 is further tested via the variable openness. In both models, the important contribution of variable openness is substantial. It infers that, in dealing with direct investment across different regions, firms from ASEAN-4 will consider the efforts that they need to undertake prior to starting an investment. If the process to start a business is too cumbersome with rigid regulations, the probability for ASEAN-4 to invest in that country is low. As highlighted by Duanmu and Guney (2009), firms from emerging economies favour countries with an open and friendly business environment, because generally they lack international experience. Therefore, countries with many restrictions may not be attractive to investors seeking to open new businesses. The significance of trade openness as a determinant of location choice has been reported in many studies, including Buckley *et al.*, (2007), Vijayakumar, Sridharan and Rao (2010), Kang and Jiang (2012), Assuncao, Forte and Teixeira (2013) and You (2015).

Overall, the findings regarding these two variables (*GDPP* and *OPENNESS*) support our hypotheses (Hypotheses 1a-c) and are consistent with findings in Chapter Two which infer that the market factor plays an important role in determining location decisions of outward FDI from ASEAN-4. Specifically, the investment decision is highly influenced by the host country's market potential, the establishment of export-led investment and the liberation of trade.

Moving to hypothesis 2, the inclusion of the variables *PATENT* and *LABOUR* force is designed to identify whether technology plays any role in location determinants by ASEAN-4. Model 1 shows that, the variable patent is significant to two regions, which are Region 1 and Region 7. Among ASEAN member countries, Singapore, Malaysia and Thailand are more advanced in terms of international business. Therefore, it is not surprising that, other member countries such as Indonesia and Viet Nam collaborated with ASEAN-4 to obtain advantages in terms of technology. For example, AXIATA, one of the biggest telecommunication companies from Malaysia, expanded

its business in Indonesia by acquiring XL in 2006. From the acquisition, XL has since absorbed the latest technology used by Axiata in its wireless telecommunications, such as 3G, high-speed Internet broadband and many more. The choice of Region 7 as investment location is also very much related to technology sharing. Countries in Region 7, including Nigeria, Malawi and Mauritius, share a common background and interest with ASEAN-4. For instance, both regions are well known for agricultural, fishery, oil and gas exploration. Singapore has some similarities with Mauritius as both countries are known as regional financial hubs. Therefore, the physical movement of technology and management know-how among regions would provide opportunities for local firms and foreign investors to enjoy technology transfers or sharing. And our results support that.

Interestingly, compared to patent, the variable labour exhibits a different pattern. In Model 1, labour is significant in all regions except for Region 6 and Region 7. In Model 2, the variable is significant in the EU, NAFTA, Mercosur and obviously, ASEAN. This result implies that the availability of labour is one of the important determinants of location choice by ASEAN-4. Investment in a developed country is related to seeking skilled labour in advanced technology sectors while investment in another emerging/less developed economy is otherwise. Therefore, under both circumstances, we can conclude that technology and availability of labour are important determinants, providing support for the second hypothesis.

The third hypothesis incorporates four variables to ascertain the importance of institutional factors in determining the outward investment location decision among ASEAN-4. The variables are host country political risk, government stability, internal conflict and corruption index. These variables have been used by international business scholars to identify the institutional effect on FDI determinants (Assunção, Forte and Teixeira, 2013). Considering both models, we can ascertain that, the significance of the institutional factor in determining location choice by ASEAN-4 varies by variables and by destination regions. In Model 1, the political risk is significant in Region 1 and Region 3&5, with both displaying a positive relationship. In Model 2, political risk is positive and significant in NAFTA and ASEAN. On the other hand, the variable

conflict is negative and significant for ASEAN-4 investing in Region 6. In model 2, the variable is negative and significant in three RIAs i.e., ANZCERTA, SAFTA and CACM. This result implies that in seeking for investment locations in countries such as India and Bangladesh, host country internal conflict plays an important role. As mentioned above, internal conflict can lead to poor governance, thus, this result indicates that investors from ASEAN-4 will exercise prudence when making decisions to invest in countries with internal conflict to avoid difficulties in managing the investment.

The findings are consistent for government stability in both models, with positive and significant coefficients in Region 6 (Model 1) and SAFTA for Model 2. This finding supports the result for internal conflict and corroborates that the stability of the governments in the South Asian region as a determining factor for location choice. Lastly, the variable corruption displays findings that differ from the usual findings reported in prior studies. As confirmed by Shleifer and Vishny (1993); Wei (2000); Habib and Zurawicki (2002); and, Assunção, Forte and Teixeira (2013), corruption generally has a negative effect on FDI. Nevertheless, for this study, corruption appears as positive and significant for Region 1 and Region 2 in Model 1, and EU and ASEAN in Model 2. The consistent result indicates that the finding is robust and acceptable. A possible explanation for this finding could be associated with the fact that ASEAN-4 countries, excluding Singapore, have a high index of corruption. Since they themselves are somewhat corrupt, to invest in another region with relatively high corruption appears to be acceptable. This explanation is plausible for investment within ASEAN, as most of the ASEAN countries are ranked very high in the corruption index list. As for investment to the European Union or Region 2, it is understood that investment in a developed economy is more for strategic asset seeking or technology seeking, hence the positive sign requires further investigation. When examining in greater detail which European countries are the recipients of FDI from ASEAN-4, it is not surprising that the corruption variable is significant. Although Denmark, the United Kingdom, Netherlands, Germany and Switzerland are regularly ranked among the top ten countries with low corruption, other European countries that have received FDI from ASEAN-4 are ranked at the middle or bottom of the corruption index, for instance,

Romania, Poland, Slovakia, Italy, Hungary and Latvia. Therefore, the same principle of corruption acceptance may apply. In general, the findings affirm that host countries' institutional factors did play a substantial role in determining location choice. Hence, hypothesis 3 is supported.

The variable ore, which is a control for the availability of natural resources in the host country is significant in Regions 1 and 6 and Regions 3 and 5. This implies that, in deciding on an intra-regional FDI location, firms from ASEAN-4 consider the availability of natural resources as a necessary requirement. Singapore for example, is known for having limited factors of endowments such as labour and land. Therefore, in order for MNEs to obtain access to such resources, they expand their investment regionally by taking advantage of the regional integration agreements that promote cross-border movement of factors of production. Malaysia on the other hand, focuses its cross-border investment on Indonesia, being especially in search of timber and palm-oil plantation that Indonesia is endowed with (Hiratsuka, 2006). Thailand focuses on investment in Laos and Viet Nam, for cheap labour and raw materials for its agricultural and textile industries (Cheewatrakoolpong and Satchachai, 2017). In the case of Indonesia, even though it has abundant raw materials, it relatively lags behind its neighbours in terms of the latest technology and infrastructure. Hence, the majority of Indonesian firms have invested in Singapore, concentrated in two main sectors which are insurance and financial services (Sambodo, 2017). By doing so, they can absorb the appropriate knowledge and train their workers who are later transferred back to Indonesia. The similar scenario can be found in ASEAN-4's investment to South Asia (Region 6). Countries such as India, Bangladesh and Pakistan have abundant land and cheap skilled labour. This explains why ASEAN-4 has channelled its investment towards that region. Compared to the countries in South Asia, Singapore and Malaysia are more advanced in terms of economic growth, therefore, moving their investment to that region is plausible. Nevertheless, model 2 shows that the availability of resources did not really determine the choice of investment location by ASEAN-4. However, it is significant for investment in NAFTA and Mercosur. The result of NAFTA is consistent with that of model 1, which is significant for investment in Regions 3 & 5. The cause of this variant could be because of the inclusion of the Pacific Region

(Australia and New Zealand) in Region 1. Nevertheless, the addition of the dummy variables of common language and distance were not significant in both models.

Table 3-6 Location Determinants (Model 1)

Dependant Variable: OFDI	Region 1 (East Asia & Pacific)	Region 2 (Europe & Central Asia)	Region 4 (Middle East & North Africa)	Region 6 (South Asia)	Region 7 (Sub Saharan)	Region 3&5 (Latin America, Caribbean
lgdpp	0.9742 (1.75) *	0.9030 (2.50) **	1.7057 (1.81) *		1.1877 (1.96) **	2.0431 (2.60) ***
lpatent	-0.3372 (-1.99) **	0.1181 (1.51)		-0.2941 (-0.99)	0.6251 (3.38) ***	-0.0651 (-0.75)
lexp	0.7788 (3.44) ***			4.8975 (4.27) ***		0.4257 (0.98)
lopen		3.4331 (3.10) ***	6.1333 (3.19) ***	7.7106 (2.00) **	1.6041 (1.83) *	1.1289 (0.77)
lpoli	0.3504 (2.01) **	-0.1008 (-0.90)	0.3665 (1.48)		-0.1560 (-0.59)	0.2450 (1.67) *
lgs	-1.4777 (-1.48)	-1.7445 (-1.42)	4.2196 (1.58)	7.3186 (2.27) **	2.2221 (0.66)	-1.9866 (-1.46)
lconflict			-1.6346 (0.72)	-15.56 (-3.21) ***	1.4104 (-0.46)	-2.0462 (-0.64)
lcorrup	4.2555 (2.49) **	7.0197 (4.82) ***	4.0790 (1.36)	1.5661 (0.53)	-2.9288 (-0.84)	1.9448 (1.41)
lore	1.7998 (2.64) ***	-0.4126 (-0.68)	0.5563 (0.66)	-2.9296 (-2.12) **	0.4950 (0.96)	-1.1392 (-2.31) **

ldis	-4.1939 (-4.10) ***		-5.3715 (-1.06)	-3.8850 (-0.87)	-13.53 (-1.27)	
llabor	2.1828 (4.51) ***	2.1948 (5.27) ***	4.8184 (5.10) ***		1.6882 (0.78)	1.9322 (2.25) **
commonlang	0.8967 (0.53)	0.7263 (0.58)	3.6116 (1.28)			
_cons	-16.94 (-1.64)	-61.42 (5.04) ***	-88.18 (-1.86) *	-37.89 (-0.97)	77.06 (1.18)	-47.66 (-2.61) **
/sigma_u	5.1031 (10.31) ***	5.0881 (14.16) ***	3.5381 (6.18) ***	4.8551 (4.57) ***	3.1846 (5.48) ***	4.9165 (8.71) ***
/sigma_e	5.0604 (37.48) ***	4.7725 (50.51) ***	4.7887 (24.71) ***	4.1424 (16.23) ***	4.1869 (20.96) ***	3.7640 (31.04) ***
rho	0.5042	0.5320	0.3531	0.5787	0.3665	0.6305
Wald Chi2	139.21	99.23	59.92	140.06	42.27	65.88
Prob>Chi2	0.000	0.000	0.000	0.000	0.000	0.000
No. of Obs.	768	1392	336	144	240	528

*Note: Standard errors in parenthesis. ***, **, and * indicate that the coefficient is significantly different from zero at the 1%, 5% and 10% respectively. The models are estimated with the correction of heteroscedasticity and autocorrelation.*

Table 3-7 Location Determinants (Model 2)

Dependant Variable: OFDI	**EU**	**NAFTA**	**MERCOSUR**	**ASEAN**	**AC**	**ANZCERTA**	**SAFTA**	**CACM**
lgdpp	0.9249 (1.92) *	9.7115 (2.81) ***	11.751 (4.80) ***	1.5541 (2.22) **	3.3492 (2.41) **		4.2979 (1.95) *	4.5840 (1.52)
lpatent	0.1547 (1.13)		-0.3195 (-1.45)	-0.2024 (-1.13)	0.2380 (1.50)		-0.1359 (-0.74)	0.4034 (1.24)
lexp	-0.0811 (-0.51)		-3.2706 (-2.43) *	0.7483 (3.17) ***	-0.6298 (-0.98)	2.1067 (1.47)	1.4442 (1.40) *	-3.3327 (-3.15) ***
lopen	2.7130 (2.13) **		17.97 (5.17) ***			9.4963 (0.78)	10.330 (3.11) ***	24.874 (3.00) ***
lpoli	-0.1365 (-1.03)	0.6076 (2.33) **	0.2847 (0.82)	0.4290 (1.77) *	0.2995 (1.01)	0.3173 (0.64)		-0.4145 (-0.97)
lgs	-1.8007 (-1.25)		2.8526 0.67	-2.8731 (-2.58) ***	-4.7591 (-2.04) **	-6.1845 (-1.52)	7.5660 (2.60) ***	
lconflict	3.6541 (1.07)	-3.7583 (-0.57)	-7.5110 (-0.71)			-60.87 (-3.33) ***	-13.36 (-4.70) ***	-53.80 (-2.61) ***

lcorrup	7.6468 (4.69) ***	-2.0037 (-0.54)	2.8836 (0.79)	5.7379 (2.71) ***	2.0503 (0.88)		2.2147 (0.89)	4.7267 (1.19)
lore		-3.9284 (-1.67) *	-12.00 (-3.52) ***		-0.3942 (-0.92)	-5.9030 (-1.36)	-2.2076 (-1.52)	-6.3938 (-1.41)
ldis		-37.43 (-1.19)		-4.1977 (-3.16) ***		16.45 (0.85)	-3.2522 (-0.76)	-26.13 (-1.03)
llabor	2.5164 (4.73) ***	5.5210 (2.82) ***	12.370 (3.18) ***	2.4904 (4.38) ***		8.5945 (1.12)	1.2582 (0.62)	10.67 (1.10)
commonlang		11.32 (1.68)		1.6642 (0.86)			-12.05 (-1.51)	
_cons	-70.53 (-4.45) ***	156.87 (0.56) *	-300.19 (-4.30) ***	-25.77 (-1.76) *	-14.11 (-1.39)	-151.17 (-0.60)	-51.26 (-1.02)	103.41 (0.35)
/sigma_u	5.0969 (12.75) ***	4.9319 (4.69) ***	6.2646 (3.88) ***	4.0684 (7.36) ***	1.9639 (3.47) ***	5.2318 (3.44) ***	4.7293 (5.22) ***	1.3205 (2.31) **
/sigma_e	5.0367 (45.94) ***	3.5787 (16.25) ***	3.5629 (13.26) ***	5.1809 (28.11) ***	3.8092 (16.14) ***	5.3252 (13.18) ***	3.9640 (18.72) ***	3.4142 (13.14) ***

rho	0.5059	0.6551	0.7556	0.3814	0.2100	0.4911	0.5874	0.1301
Wald Chi2	83.78	38.20	58.19	131.01	13.82	26.8	158.72	22.15
Prob>Chi2	0.000	0.000	0.000	0.000	0.054	0.000	0.000	0.014
No. of Obs.	1152	144	96	432	144	96	192	96

*Note: Standard errors in parenthesis. ***, **, and * indicate that the coefficient is significantly different from zero at the 1%, 5% and 10% respectively. The models are estimated with the correction of heteroscedasticity and autocorrelation.*

3.6 Conclusions

Findings from the study are generally in congruence with findings from the reviewed literature. MNEs from ASEAN-4 focus their FDI regionally in order to gain benefits of the regional integration agreements between the member states. Furthermore, RIAs boost intra-regional investment depending on the industries and firms' characteristics.

The study's findings have revealed that, market factors play an important role in determining the choice of location for outward FDI from ASEAN-4. The key determinants include market richness, trade liberation and export leading investment were generally support by the results. To test for robustness of our finding, we run the same model on ASEAN-4 against the combination of all regions as reported in Table 3.8. Both models show that all three variables that proxy market factors are positive and significant. Among the variables, *GDPP* or market richness is the most important as it appears to be more pronounced in all the regions. From this, it can be concluded that market factors play a significant role in determining ASEAN-4 location choice, whether it is intra-regional or extra-regional investment.

The study also finds that technological availability is pivotal in determining investment location. The result indicates that the economic level of a host country or region influences the decision. As stated earlier, investment in developed regions, are more concerned with seeking new technology and getting access to advance human capital due to lack of technological capabilities among firms in ASEAN-4. Whereas, investment in another emerging economy or less developed economy is motivated towards technology sharing. This is indicated by the collaboration among firms in Region 7, (regarded as having a similar technological level) with firms from ASEAN-4. An example of the collaboration is the construction of G-Two Holdings, a Malawian company with Telekom Malaysia, a leading Malaysian telecommunication company. Besides Malawi, Nigeria has also become major recipients of outward FDI from ASEAN-4, including Thailand (in agriculture), Indonesia (mills and plantations), Malaysia (palm oil and oil and gas) and Singapore (telecommunications). These collaborations indicate that in terms of technology seeking, ASEAN-4 prefer to invest

in other emerging regions, or less developed regions, to which they can transfer their technology across borders.

The study's findings have demonstrated that institutions have a mixed effect on location choice by ASEAN-4. Generally, political and good governance have a positive effect, while the opposite may be said of internal conflict. Surprisingly, one interesting finding is that the corruption level did not deter investment from ASEAN-4, but somehow had a positive impact on FDI. Contrary to our findings, the literature shows that corruption is associated with negative effects, however, findings from the ASEAN-4 investments in certain regions show otherwise. The feasible explanation for this finding can be further discussed from two perspectives. Firstly, most existing studies that used corruption as one of the institutional variables largely based their analysis on cross-sectional data that cannot account for unobserved country specific effects with which corruption level is correlated. Therefore, we argue that the simultaneity between corruptions is ignored. To some extent, the previous studies may also disregard that corruption is not necessarily an independent variable. The existence of corruption may be influenced by other factors such as the quality of institution in the host country or other cultural value. However, our finding is based on panel data technique, the negative effect of corruption may be disappeared once political and government stability is used to gauge the institutional quality of the host country. Therefore, in this case, we may infer that in choosing location of outward FDI, investors do not consider corruption as one single determinant, but complement it with good governance and other government support such as tax exclusion. Likewise, the results should be seen as an indication of the importance of institution quality instead of focusing on corruption.

From another perspective, our finding is linked to the fact that three out of four countries in ASEAN-4 have relatively high levels of corruption, hence their familiarity with corruption helps them deal with it in a constructive manner. In other words, previous knowledge helps the MNEs from ASEAN-4 to carefully deal with the host country's bureaucracy by either tolerating it or preparing to deal with it in advance. Therefore, in choosing a FDI location, corruption does not seem to be a deterrent.

This study has some limitations that warrant further investigation. One important limitation is the appropriateness of the data used in the empirical analysis. It is noticeable that outward FDI data from ASEAN-4 is still in its infancy, and is not a full data set. Nonetheless, we are quite confident of the soundness of the results as they are generally robust across the two models used. With more time, however, an extensive effort could be made to build a comprehensive database specifically designed to test the given hypothesis, allowing even more robust findings to be ascertained.

In future research, considering the robustness of the model, it would be beneficial if the analysis could be extended to the rest of the ASEAN member countries, with examination of an expanded set of variables.

Table 3-8 Location Determinants (Model 1 and 2) - Robustness Check

Dependant Variable: OFDI	**Overall - All region (Model 1)**	**Overall - All region (Model 2)**
lgdpp	1.1328 (5.46) ***	1.1328 (5.46) ***
lpatent		
lexp	0.3097 (3.43) ***	0.3097 (3.43) ***
lopen	1.0912 (3.94) ***	1.0918 3.94 (***)
lpoli		
lgs	-1.7818 (-2.64) ***	-1.7818 (-2.64) ***
lconflict	-1.3886 (-1.57)	-1.3886 (-1.57)
lcorrup	4.8327 (6.69) ***	4.8327 (6.69) ***
lore		
ldis	-3.6923 (-8.11) ***	-3.6923 (-8.11) ***
llabor	2.1048 (9.15) ***	2.1048 (9.15) ***
commonlang		

_cons	-14.41 (-2.67) ***	-14.41 (-2.67) ***
/sigma_u	5.1962 (22.10) ***	5.1962 (22.10) ***
/sigma_e	4.7358 (78.99) ***	4.7358 (78.99) ***
rho	0.5433	0.5463
Wald Chi2	423.29	423.29
Prob>Chi2	0.000	0.000
No. of Obs.	3408	3408

*Note: Standard errors in parenthesis. ***, **, and * indicate that the coefficient is significantly different from zero at the 1%, 5% and 10% respectively.*

CHAPTER 4

4 The determinant of outward FDI from ASEAN – a firm-level analysis

4.1 Introduction

The findings from the previous two chapters suggest a number of results, or questions worthy of further investigation which require a more finely grained analysis. For example, in Chapter Two, we established that market seeking is the main motivator for outward FDI from ASEAN-4 and that institutional factor is context specific which means that there is not a single institutional variable significant across ASEAN-4. We also established that majority of ASEAN-4 FDI is leading by export. Equally, Chapter Three illustrates that ASEAN-4 investment is intra-regional and the similarities between home and host country characteristics influence location decision. Nevertheless, in both chapters, we based our analyses at the country and regional levels as we did not consider the direct involvement of enterprises as the catalyst of internationalisation. Therefore, building on this, the thesis then moves to firm level analysis to explore some of these issues in more detail. In this chapter, we aim to investigate the role played by ASEAN-4 firms in determining outward FDI from this sub-region.

As discussed earlier, studies of FDI location choice tended to focus in either country or regional level (as in the region where they belong such as Europe or regional blocs such as NAFTA), or in certain cases on the firms' internal advantage (Dunning, 2001). The focus mainly on macro-level factors determining FDI and used econometric or statistical methods to analyse the related FDI data. Nonetheless, determining factors

at the micro-level from the perspective of the investing firm have been largely neglected by previous studies even though firm-level factors are central in determining FDI preferences as suggested by Buckley and Casson (1998) and (Wignaraja, 2001). Investing firms generally have different capabilities and characteristics, with distinct motivations that specifically match the firms' investment strategies. As a result, they tend to have different preferences on FDI choices especially on preferable location. To respond to firms' heterogeneity and their perspective of FDI, it is realistic to focus on FDI determinants at the perspective of the firm and its specific factors. Even though, the firm's decision to invest abroad is largely influence by country characteristics, it is also important to understand the firm's characteristics. Therefore, a study which focuses on the firm-level analysis will enrich the literature on FDI and generate important implications for MNEs and policy makers in the host countries. This chapter is designed to explore the determinants of outward FDI from the perspectives of the investing firms by testing the proposed hypotheses and analysing key factors that motivate outward FDI.

Since the earliest works of Caves (1971), Dunning (1979) and Hymer (1960), the involvement of multinationals in fostering globalisation is undeniably significant. The burgeoning of foreign direct investment is in fact the result of active participations by these enterprises. The theory of the international operation of the firm emphasised on the importance of possessing unique characteristics by enterprises to stimulate revenue generation potential abroad. The combination of internalisation and location advantages leads to outward FDI. In recent years, the literature pertaining to MNEs and its determinants typically examine how exogenous macroeconomic factors influence the firm's decision in FDI involvement. Typical factors that were used in the present literature include (but not limited to) exchange rate, tariff impact and taxes. Often, the researchers used country-level data or to some extent, industry-level data to obtain their findings. Lately, the trend has gone in a different direction. Since the firm-level data are now available for some countries, the use of firm-level data is of interest among researchers. Among the previous studies that used firm-level data to analyse FDI from different angle and setting are works by Bhaumik, Driffield and Pal (2010) who studied the impact of ownership structures of emerging-market firms which are shaped by local institutions, on their decision to undertake outward FDI. Others are Temouri, Driffield and Higón (2009) that examines the impact of outward FDI on domestic output and

total factor productivity of Germans' MNEs. While the same authors also used firm-level data to inspect the outsourcing / offshoring of high technology manufacturing and services industries among OECD countries (Temouri, Driffield and Añón, 2010).

Therefore, the needs to study ASEAN experience in outward FDI by using firm-level data is crucial for several reasons. Among the reasons are the focus on outward FDI from emerging markets is always centred on firms from Asian emerging economies, such as China and India, with less attention given to firms from small emerging Southeast Asian countries such as Malaysia, Indonesia and Thailand. Even though Singapore is a developed economy, the literature on Singapore is also limited. Another reason is data availability. It is interesting to note that the overall outward FDI from ASEAN is becoming significant[7] in the global arena, however, the difficulty of obtaining firm-level data have always been the main constraints. Data is important for business' survival but Asian firms' is lagged behind (Zheng, 2016).

For the purpose of this research, the data is taken from ORBIS provided by Bureau van Dijk. ORBIS offers wide range of firm-level data which provide detail information on foreign investors such and their ownership status either they are state owned, institution owned or private equity owned. The example of the latest studies which adopted ORBIS database are the work by Cui and Jiang (2012), Yang, Martins and Driffield (2013), Bhaumik, Driffield and Zhou (2015) and Temouri, Driffield and Bhaumik (2015). The Organisation for Economic Co-operation and Development (OECD) has highlighted the importance of firm-level micro-data for econometric analysis, which not only gives better interpretation but is also able to provide detailed aggregate data (Ribeiro, Menzel and De Backer, 2010). Second, the data provides a comprehensive picture of foreign activities by ASEAN firms. The rich database allows access to detailed financial company accounts, such as cash flow and asset ownership. This enables the estimation of the model of foreign direct investment, value of sales and revenue of the firms. Third, the data also facilitates identification of the location of international expansion by the firms, therefore the target locations can be assigned to developed and emerging economies to add more depth to the research. Besides the

[7] Overall FDI outflow from ASEAN region rose rapidly from US$8.97b in 2000 to US$56.36 b in 2013 (The ASEAN Secretariat, 2014)

availability of the data, the motivation of this chapter is also found in the fact that there are very few studies that compare the determinants of outward FDI from ASEAN-4, especially at the firm-level and that distinguish between developed and emerging country locations. Therefore, the main contribution of this chapter is to augment the limited literature on outward FDI with firm-level micro-data from ASEAN.

This chapter is organised as follows. The next section briefly reviews the key literature. Section three provides the empirical methodology and hypothesis development, whilst section four elaborates the data set and construction of variables. Section five presents the econometric results and the final section concludes the chapter.

4.2 Literature Review

Over the past decades, multinationals around the world have proliferated in number and size and dominated a large portion of international transactions. They account for a large fraction of foreign trade and providing large numbers of employment opportunities around the globe. By engaging in broad range of different activities, they accumulated huge amounts of tangible and intangible assets. Although multinationals are often treated as one homogenous group, their distinct characteristics make them heterogeneous entities. Therefore, filtering out the common determinants, motives and business direction is a major challenge to researchers.

Multinational enterprise is widely known as an enterprise which has a physical presence, owns and is able to generate income in more than one country (Dunning, 1973; Buckley and Casson, 1976). The definition provided by United Nations (U.N.) emphasises the word 'control' and states that, any enterprise which has controlled over the assets, physical premises, sales office, mines of any of sort in two or more countries is considered a multinational firm. In conjunction with the rapid growth of multinational firms' activities around the globe, new forms of investment (non-equity investment and unbundled FDI) such as contract management and leasing exist (Hennart, 1989) and requires adjustment to the definition. Therefore, for the purpose of this study, we adopted the definition by Dunning (1989; 33):

"A multinational enterprise (MNE) is an enterprise which owns or controls value-adding activities in two or more countries. These activities might lead to production of tangible goods (e.g., washing machines) or intangible services (e.g., an audit) or some combination of the two (e.g., the transmission of data). This output might be sold to other firms or used by the same firm for further value-adding activities, i.e., take the form of intermediate goods (e.g., pharmaceutical chemicals) or services (e.g., a warehousing facility or a patent right). Or it might be sold to final consumers, i.e., take the form of consumption goods (e.g., a bar of chocolate) or services (e.g., a haircut), or indeed items that might belong in both categories (e.g., a car or airline journey)."

As mentioned above, the theory of foreign direct investment concerning multinationals was pioneered by (Hymer, 1960,1976) where he suggested that certain advantages will allow firms to generate above average profits and provide firms with the incentive to expand abroad. Moreover, Kindleberger (1969) and Caves (1971) stressed the importance of possessing certain levels / qualities of "intangible assets" such as technology, a unique and distinctive product, management know-how and specific skills (marketing and sales) in order for the firms to engage in international business operations. These assets will enable the firm to overcome any cost of foreignness, namely the cost that the firm needs to encounter to start a business abroad. A few examples of cost of foreignness include marketing and advertising cost, cost related to regulations and cost dealing with institutional bodies in the host country. Fundamentally, the theories relating to multinational enterprises attempted to find the answers to three basics questions 1) what stimulates firms to go abroad? 2) what enables them to do so? and 3) why do firms participate in different forms of investment? Nevertheless, in this study, the focus is more towards finding the motives for firms going abroad.

The involvement in international business requires firms' survival in the host country. Therefore, to be able to compete with domestic firms, firms need to possess specific characteristics that can leverage their advantages to offset the additional costs incurred, including the liability of foreignness (Dunning, 1980,1993). The so-called OLI (ownership, locational and internalisation) paradigm has been used as a tool by numerous scholars to justify the motives of internationalisation. Hence, in an ideal situation, a firm is said to be able to internalise its firm-specific advantage, and utilise the country-specific advantages[8] to succeed in the international arena. Nevertheless, the ideal case may not be accurately applicable to firms from emerging economies. In reality, firms from emerging economies may not possess distinct firm-specific advantages to start global ventures, instead gaining specific advantages has become the motives of internationalisation (Bhaumik and Driffield, 2011; Luo and Tung, 2007; Mathews, 2006). Rugman (2009) argues that the emerging multinationals evidently

[8] Examples of firm-specific advantages are brand recognition and management know-how. Country-specific advantage is normally linked to country natural resources and market size.

build upon their country-specific advantages especially in terms of cheap labour and abundant resources to build their foothold in international arenas.

Among the significant and important firm specific advantages is the financial capabilities or strong capital structure. Generally, firms finance international operations by using internally generated funds or by using external credit. However, the access to external credit could be very costly and limited by the capability of the firms to produce substantial collateral. In the earliest stage, scholars regard multinationals as a form of international capital flow. As pointed out by Hymer (1979), capital will flow between countries in relation to different interest rates. Unrestricted capital flows may also offer several other advantages, as noted by (Feldstein, 2000). First, international flows of capital reduce the risk faced by owners of capital by allowing them to diversify their lending and investment. Second, the global integration of capital markets can contribute to the spread of best practices of corporate governance, accounting rules, and legal traditions. Third, the global mobility of capital limits the ability of governments to pursue bad policies.

4.3 Research Setting

The results in Chapter 2 and 3 have revealed that the main motivation for outward FDI from ASEAN-4 is market-seeking. Being the key driver of ASEAN economic growth, the importance of outward FDI became increasingly important after the ASEAN Financial Crisis (AFC) of 1997. During 2002-07, as ASEAN recuperated from the AFC, most of ASEAN firms had strengthened their position domestically and some had started to expand internationally. ASEAN outward FDI increased from US$2.3 billion in 1990 to about US$62 billion in 2007 (The ASEAN Secretariat, 2012). This situation had overturned the status of ASEAN, which was previously known as the main recipient of FDI from developed countries to the main contributor of Asian burgeoning outward investment. Nevertheless, most of the international investments made by ASEAN-4 are centred in the same region. This so-called intra-regional investment demonstrate the region's dependency on each other. In a study of outward FDI by Indonesian firms, Lecraw (1993) asserted that "third world multinationals invested in neighbouring, "downstream," developing countries with lower levers of industrialisation and technological capabilities" (1993: 590) which sums up the investment trend within ASEAN.

As established in the first two empirical chapters, outward FDI from this region has been dominated by Singapore and Malaysia. The former, being the most developed country in the region started its outward FDI much earlier than other countries in the region. Known for being the smallest country in Southeast Asia, Singapore initially struggled with a shortage of labour and land. Hence, beginning early 1990s, its government launched numerous policies that supported and encouraged outward FDI from the region (Lee, Ging, and Yeo, 2017) in the quest to complement the shortage of resources. Among the policies were the establishment of a Committee to Promote Enterprise Overseas, and various tax deduction and exemption schemes. With strong support from the government, together with a solid economic foundation, Singapore positioned itself as one of the biggest contributors to ASEAN outward FDI.

While Singapore leads the way, Malaysia, its closest neighbour, followed closely. According to UNCTAD (2014), Malaysia's share of total outward FDI

increased from 8% in 1990 to 19% in 2013. Thus, it strengthened its position as Southeast Asia's most active investor, second only after Singapore. Outward FDI from Malaysia experienced an upward trend from 2004 – 2008 before facing a sudden drop in 2009 due to the global financial crisis. Nevertheless, the lesson from the recent AFC taught the Malaysian government to be resilient against any financial difficulties. As a result, outward FDI from Malaysia managed to recover in 2010 and steadily increased thereafter.

Another country in ASEAN that is slowly but steadily showing significant growth in outward FDI is Thailand. Bordering Malaysia on the north, Thailand's outward FDI has shown an increasing trend from 2008 through 2012. While inward FDI still dominates Thailand's economy, the positive signs of outward investment makes Thailand another potential investor from Southeast Asia, with the solid connection with the ASEAN community and strong support from the government backing its internationalisation agenda (Cheewatrakoolpong and Satchachai, 2017).

Another promising investor from South-East Asia is Indonesia. Prior to the year 2000, Indonesia was facing a hard time recovering from AFC. Between 1998-2001, its inward FDI was negative, and the outward FDI was static. However, between the year 2004 – 2011, outward FDI from Indonesia showed an increasing trend, as a result of aggressive investments to China, Thailand, Japan and Singapore (Sambodo, 2017). The Global Financial Crisis of 2008 hampered Indonesia's outward FDI progress. Despite the fluctuating trend experienced by this country, the government managed to encourage and boost outward investment.

The rise of outward FDI in ASEAN is largely contributed by the aggressive roles play by its firms, be it multinational enterprises (MNEs) or small and medium enterprises (SMEs). From the list of the top 100 ASEAN companies in 2014 (by assets and significant cash)[9], firms from Malaysia and Singapore led the list with 26% and 24% respectively, while Thailand contributed 20% and 10% is from Indonesia. The remaining 20% is from other ASEAN countries. Table 4.1 presents the list of the top ten ASEAN firms (by net income) in 2014 which is clearly dominated by firms from

[9] The full list is attached in Appendix 4.1

ASEAN-4. The main contributing factor is their governments' international strategy with most of the government-link companies (GLCs) spearheading the investment.

Besides GLCs, other actors of outward FDI from ASEAN countries range from public-listed firms to state-owned enterprises. Some of the most notable multinationals from ASEAN are Petronas (Malaysia), DBS Group Holdings (Singapore), PTT (Thailand) and Bank Central Asia (Indonesia). Among all these renowned companies, Petronas or Petroliam Nasional from Malaysia is consistently listed in the top 100 world's largest transnational companies ranked by foreign assets (UNCTAD, 2013). In addition to that, the role played by small and medium size enterprises (SMEs) in this region is increasingly significant as their presence in the international arena, especially in intra-ASEAN investment has become pertinent (The ASEAN Secretariat, 2014). The growth of intra-ASEAN investment and regionalisation of more ASEAN firms will remain a centrepiece of ASEAN future investment landscape.

Table 4-1 Top 10 ASEAN Companies by Net Income (2014)

Company	Country	Industry	Net Income (millions of dollars)	Total Assets (millions of dollars)
DBS Group Holdings	Singapore	Banks	3194	332653
Overseas-Chinese Banking Group	Singapore	Banks	3033	3023881
Singapore Telecommunications	Singapore	Telecommunication	2901	31249
United Overseas Bank	Singapore	Banks	2565	231551
Malayan Banking	Malaysia	Banks	2053	182864
Bank Rakyat Indonesia	Indonesia	Banks	2045	64518
Tenaga Nasional	Malaysia	Electric Utilities	2000	34993
PTT	Thailand	Oil, gas and consumable	1718	54062
Bank Mandiri	Indonesia	Banks	1676	68788
Siam Commercial Bank	Thailand	Banks	1642	82033

Source: (The ASEAN Secretariat, 2015)

Besides impetus from the local government, the continuous support and strong regional economic ties also contributed to the competitive expansion of firms from ASEAN. Individual governments in ASEAN member states urged its national firms to take advantage of the ASEAN Economic Community (AEC) and pushed for international expansion (The ASEAN Secretariat, 2014). The formation of AEC with the main target to achieve single market and production base in the region, are the proof of the strong force between the member states.

As discussed in chapter 1, ASEAN-4 outward FDI is dominated by Singapore and Malaysia. Nevertheless, the investment from Thailand and Indonesia has become significant. ORBIS database has reported that between 2006 – 2015, there are 2375 firms from Malaysia that have subsidiaries overseas, 6036 for Singapore, 598 for Thailand and 322 for Indonesia.

Figure 4-1 ASEAN-4 Outward FDI by Host Country Destination

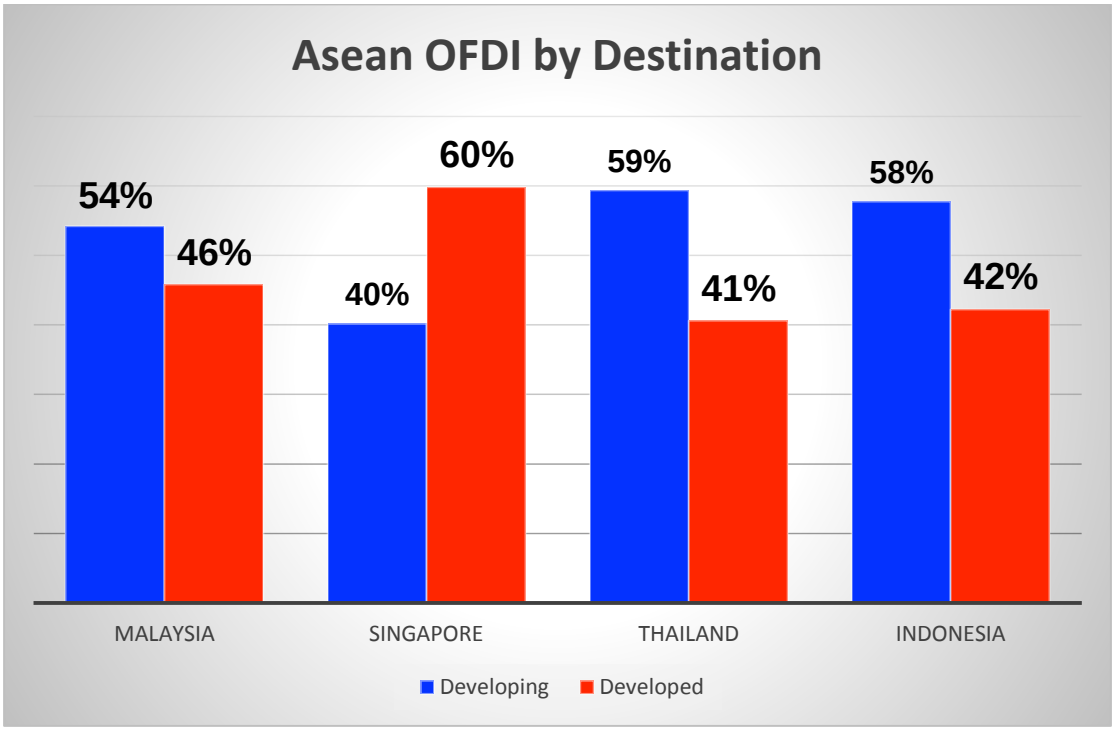


Figure 4.1 presents the destination of outward FDI from ASEAN-4 by host country classification. Consistent with the earlier explanation, outward FDI from ASEAN-4 is moving towards emerging countries. Nevertheless, Singapore is the only country that focuses its investment more towards developed nations. This is because almost 77% of outward FDI from Singapore is concentrated in financial and insurance sectors (Department Of Statistics Singapore) which are mostly concentrated in developed economies such as the United Kingdom and Hong Kong. Based on the dataset, 30.17% of Singapore's total outward FDI for the duration of the study (2006-2015) is to Australia and about 5% to the United Kingdom. Australia is also the most important developed country destination for outward investment from Malaysia, Thailand and also Indonesia. Regionally, most of Malaysia's outward investment goes to Indonesia at 11%, followed by 5% to Singapore, and 4% to Thailand. Malaysian firms mostly invest in oil palm, banking, mining, telecommunications and health sectors in Indonesia, where firms such as TH Plantations, Petronas Carigali and Axiata Group Bhd lead the investment. Singapore on the other hand, focuses its regional investment in Malaysia (7%) followed by 5% in Thailand and Indonesia respectively where firms such as Temasek Holdings dominate. Interestingly, while other members of ASEAN-4 have a negligible amount of investment to the rest of ASEAN countries,

Thailand has a significant investment in most of other ASEAN member states. Besides having 7% investment in Malaysia, Singapore and Viet Nam (5%), Indonesia (4%) and Laos (4%), Thailand also has a substantial investment in both Cambodia and Myanmar (3%). Thailand's high investment in Cambodia, Laos, Myanmar and Viet Nam (hereafter CLMV) is due to its proximity and abundance of natural resources (Cheewatrakoolpong and Satchachai, 2017). As Thailand is focusing on textile and garment industries, the choice of CLMV as the host countries is plausible. Cheewatrakoolpong and Satchachai (2017) highlighted four main characteristics for CLMV becoming Thailand's choice; 1) low-wages – garment and textiles is a labour-intensive industry, thus CLMV is able to supply cheap labour for the industry, 2) the growing of textile and garment industry in the CLMV, 3) host country government incentives, and 4) high domestic growth within the host country. Lastly, Indonesia centred its regional investment mostly to Singapore (14%) followed by 5% to Thailand and 4% to Malaysia.

In terms of sectorial distributions, industrial companies including the manufacturing industry dominate intra-ASEAN investment. According to the ASEAN Secretariat (2014), about 30% of intra-ASEAN investment is in the manufacturing sector. The petroleum industry including exploration, extraction, refining and marketing of petroleum products is also listed under industrial company that contributes to the overall numbers. The second biggest sector that contributed to the expansion of outward FDI from ASEAN-4 is the financial institution, followed by the banking sector in the third place.

4.4 Hypothesis Development

MNEs normally finance their international operations through several options[10]:

1. Retained earnings - Net profits kept to accumulate in an enterprise after dividends are paid.
2. New credit – can be divided into domestic and foreign credit. Domestic credit is a total loan extended by the local banking sector to the non-financial enterprises, include both loans in local currency and in foreign currency, while foreign credit means a total loan extended by a resident entity (lender) in one economy in an enterprise resident (borrower) in another economy where the lender does not have a significant (10% and more) ownership stake.
3. Capital market - New equity and bond issues by enterprises, approximated by the change in the stock market capitalisation, accounting for changes in equity prices.
4. States subsidies - Non-repayable transfers from the budget to private industries and public enterprises, including public capital expenditures, and the cost of covering the cash operating deficits of departmental enterprise sales to the public.

In the case of ASEAN, the expansion of outward investment is dependent on the ability of the firms to generate funds whether internally or externally. Firms financial ability is crucial in determining the firms' survival while sources of financing will influence investment decisions. Generally, ASEAN firms' investment are financed through commercial financial institutions (debt or equity financing), firm internal funds or sovereign wealth funds (SWFs). Within ASEAN, there are two big SWFs that normally finance firms' expansion internationally, which are Khazanah Nasional Berhad from Malaysia and Temasek Holdings from Singapore. A detailed discussion of the corporate

[10] The definitions taken from the European Bank for Reconstruction and Development, London.

financial patterns and its concern in East Asian countries can be found in Driffield and Pal (2001, 2006). Using WorldScope firm-level financial data, they found that the most important source of investment for Indonesia is cash flow while investment from Malaysia and Thailand are mostly funded by external financing, in particular debt-financing. Being one of the most advanced economies in Southeast Asia, Singapore has proven to have stronger financial capability and remained resilient overtime.

Although ASEAN economies have experienced sustainable growth and outstanding development, the AFC (1997-1998) confirmed that the region is not an exception to any economic crisis. During AFC, most of the ASEAN countries faced financial distress, although Indonesia and Thailand were hardly hit by the crisis. It was agreed among scholars that financial fragility in Southeast ASEAN was among the main factors contributing to the crisis (Driffield and Pal, 2010). Feldstein (2000) highlighted three factors that causes financial crisis in an emerging market of the late 1990s including Southeast Asian. The first factor is exchange rate misalignments that led to huge current account deficit due to the fixed exchange rate regimes adopted by the affected countries. The second reason was the national balanced sheet mismatch between short-term foreign exchange liabilities and foreign exchange reserves. When this situation occurs, firms facing difficulties to pay its debts and lost investors' confidence. Consequently, foreign creditors stop giving out loan, foreign exchange reserves depleted and caused currency to decline. The third problem was weakness of domestic banking systems and the poor quality of banking supervision. When banks become weak due to bad loans, foreign and domestic investors revised the decision to extend credit and make deposit. Creditors are likely to begin withdrawing their funds and had caused the commercial banks to call in their loans and to sell assets, deepening the economic crisis.

Driffield and Pal (2001, 2006) outlined two main financial issues faced by ASEAN; 1) over investment 2) excessive external borrowing. Over investment is a situation in which management of firm invests in too many projects, especially when the projects do not benefit shareholders. In other words, investing into a project which cost more than the project's actual price in an open market. While excessive external borrowing occurs when firms rely heavily on external financing to capitalize their outward investment. According to Mansoorian (1991), some emerging countries

suffered from heavy debts when they took extensive borrowing by using their natural resources as collateral. While Harberger (1985) emphasised that the important cause of debt problem among countries was lack of sufficient savings. Prior to AFC, ASEAN, one of the fastest-growing regions, enjoyed average annual gross domestic product (GDP) growth of 6.6 percent as compared to other emerging countries which recorded an average of three percent during the same period. The growth accelerated significantly and reached its peak in 1994-1995 with Malaysia, Singapore and Thailand enjoying growth rates in the range of eight to ten percent per annum (Funston and Cunha, 1998). During this period of rapid economic expansion, ASEAN MNEs managed to raise investors' confidence and increased the demand for foreign borrowing. The increase in availability of capital enabled the expansion of loans for private spending particularly in the real estate, creating price bubble[11] phenomenon. When the bubble collapsed, the entire financial system was severely affected. Short-term loan creditors started to withdraw their funds from these regions and placed pressure on the foreign exchange reserves and exchange rates, and, subsequently weaken the local currencies. This has been witnessed during AFC when Thailand had suffered severe economic turbulence when Thai Bath depreciated to a very low threshold.

The literature of emerging MNEs (particularly of Chinese and Indian) argues that firms have funded their FDI through internal cash flow. Khanna (2000) stated that firms hold more cash internally to get ready for growth opportunities, especially when the capital markets are deficient. Based on the World Bank investment climate survey (2003)[12], one-quarter of the 2400 firms in China reply "No" to the question "Do you have a loan from a bank or a financial institution". It shows that in order to expand the business internationally, local firms have to accumulate substantial cash to fund its expansion. Typically, the difficulties to obtain external funding forces MNEs to retained its earning and fund its international operations internally. On the other hand, Francis *et al.*, (2013) highlighted that cash is an important determinant of investment for firms that are a priori identified as the most likely to have weak governance

[11] Price bubble is a situation in which prices for securities, especially stocks, rise above their actual value. This trend continues until investors realise just how far prices have risen and normally end up in a sharp decline of price.

[12] Enterprise surveys data can be accessed at http://www.enterprisesurveys.org/

standards or more agency problems. Most ASEAN economies is said to have high level of direct government intervention, insecure property rights protection and opaque corporate governance (Huang, Morck and Yeung, 2004). In other words, except for Singapore, ASEAN countries are known to have weak governance and fiscal policies. However, taking heed from the AFC, most ASEAN countries had strengthened their financial policies to ensure economic resilience and robustness. As a result, most of the member states, especially Singapore and Malaysia, were able to quickly recuperate from the AFC and were even more prepared to face economic challenges in the coming years. Ostensibly, there is no evidence in the earlier literature that emphasise on how ASEAN firms which typically smaller in size (as compared to Chinese and Indian firms) managed to build up huge cash reserves to be able to generate internal fund for FDI. Therefore, the following hypothesis is designed to find out what are the main sources of funding for ASEAN outward FDI post AFC.

Hypotheses 1a: Firms from ASEAN-4 funds its outward FDI internally through cash financing.

Hypotheses 1b: Firms with greater leverage will have greater outward FDI

According to Banga (2007) there are three factors which motivate outward FDI from emerging countries which are;

1) Trade-related drivers – Traditionally, export and outward investment are considered as alternatives when firms decided to engage in international operations. However, with the complexity of international business, the functions of both trade and outward FDI has experienced some changes. The liberation of trade has encouraged outward FDI and become the main determinants of FDI rather than an alternative. Some scholars argue that FDI has become a tool to preserves markets which initially started with trade (Trevino and Grosse, 2002). While Eaton and Tamura (1994) suggested that, FDI serves as a beachhead for exports. Therefore, Banga (2007) concludes that export is a main driver of outward FDI with the main intention to access large markets, provide low risk investment and cross-border vertical integration.

2) Capability-related drivers – Tantamount to trade-related drivers, capability-related[13] drivers are also crucial in determining outward investment. This so called intangible asset becomes a pertinent motive when firms engage in the international arena to seek for such factors.

3) Domestic drivers – Beside the appealing factors in the host country that can boost outward investment, domestic factors in the home country also play an important role. Shortage of labour, market saturation, and poor infrastructure are among the factors that push outward FDI.

As discussed in Chapter 3, ASEAN-4 outward FDI are mainly intra-regional. Even though there are differences in the domestic characteristics, most firms tend to focus their investment regionally or in other emerging countries before going beyond its regional border (Aykut and Goldstein, 2006). The tendency to focus international operations intra-regional is because of the familiarity through earlier trade (export), having similar physic distance and regional policies that encourage investment between each member states. Furthermore, the familiarity of the business environment will also increase the embedded knowledge within the company and become a motivating factor for outward FDI from ASEAN-4.

Dunning and Lundan (1993) highlight that intangible assets are the foundation behind firm's motivation to expand into new oversea markets. This is because intangible assets generate advantages in the home country that can be exploited in the host market. According to Kindleberger (1969); Caves (1971), and Hymer (1979), a firm operating abroad must possess advantages which are adequate enough to offset the handicaps to be faced in an alien atmosphere and to cover the greater risks. These advantages are emanate from ownership of some propriety intangible assets owned by firms such as goodwill in the forms of brand names, patented technology, managerial and marketing skills or even access to cheaper sources of capital and raw material. Kumar (1987) listed the classification of intangible assets as follows:

[13] The example of capability-related drives are relevant skills, technology, information and knowledge.

1. Product differentiation and goodwill

   Firm's ability to distinguish its products through brand names and trademarks is consider as the most important intangible assets. In this case, strict control is needed to ensure the quality is maintained to the highest standard. Firms runs the risk of dissipation of goodwill in case the licensee fail to maintain the quality to its original standard. Therefore, the transaction cost is normally high to upkeep with the quality.

2. Knowledge

   Another important and valuable intangible asset is the possession of knowledge. Knowledge can be in the formed of new technology or superior management or marketing skills. Two types of knowledge are knowledge embodied in employee skills, and knowledge embodied in capital goods. Normally the cost related to" knowledge embodied in skills" is higher because it involves the physical movement of the employee (who possess the skills). Conversely, the transfer on "knowledge embodied in capital goods" does not require high cost. The cost is embedded in the basic design of the capital goods.

3. Access to sources capital

   Worldwide access to capital markets is considered as another important intangible asset for MNEs. This is especially important if they were to engage in heavy capital investments which requires enormous funding. Nevertheless, the access to sources of capital does not associate with high transaction costs as markets for portfolio investments are well developed. The larger the volume of capital required, the greater would be the attraction of having access to the sources of capital.

The intangible asset underlying knowledge-based competitive advantages can contribute to firm's performance if the firms able to exploit it in the new environment without diminishing in the asset's value. Firms enter into a host country and the subsidiary becomes the firm's agent by exploiting its intangible asset advantages (Rugman, 1980). These advantages provide the foreign subsidiary with a competitive position in the local market especially if the parent company is well established.

Empirical evidence support this contention. Bhaumik and Driffield (2011) found that the extent of overseas FDI increases substantially with an increase in the embedded knowledge of the company (measured by intangible assets) and (Delios and Beamish (2001) found a positive relationship between intangible assets and firms' survival.

Using intangible assets to proxy the embedded knowledge, we therefore, postulate the following:

Hypothesis 2: Intangible Assets facilitate outward FDI from ASEAN-4 MNEs to other emerging countries.

Firm size also plays an important role in determining its firm's financial structure. Large firms generally find it easier to secure external finance and, are less likely to rely on bank borrowing for their financing. Large firms also tend to have a large asset base that can be used as collateral whenever they needed to secure financing. According to Gaud *et al.* (2005), large size firms tend to be more diversified and, hence their cash flow is less volatile. It is suggested that firm size should be positively related to borrowing capacity, because potential bankruptcy costs make up a smaller proportion of value for larger firms (Titman and Wessels, 1988). Large firms are generally well-known to domestic market and to some extent, outside its home country. This suggest that large firms have better access to markets and capable to obtain external funding (Ferri and Jones, 1979). Titman and Wessels (1988) also argue that smaller firms might borrow more because the relative cost of issuing equity is higher for them. Marsh (1982) asserts that larger firms tend to choose long-term debt, whereas smaller firms use more short-term debt. On the other hand, size may increase leverage if large firms are less likely to enter financial distress.

Large firm also have greater ability to bear risk and uncertainty associated with foreign operation. Several advantages such as large resource base, easy access to market information, knowledge of supplier sources, and preferential access to capital markets are among the drivers to boost these firms' internationalisation. Previous studies found that, size to be an important factor for firms' internationalisation decision (Blomström and Lipsey, 1991; Pan and Li, 2000) . Therefore, we postulate that firm size is positively related to ASEAN-4 outward FDI.

Firms' ownership may influence FDI strategies in many aspects. Generally, MNEs from ASEAN are either large public-listed company, state-owned enterprise (SOE) or government-linked company (GLC). There are also foreign-invested company who based their operation locally. Douma, George and Kabir (2006) argues that firms with foreign shareholders are more competitive than their local counterparts. Firms with foreign ownership also possesses some advantages as highlighted by Bhaumik and Driffield (2011). Among the advantages are firms' ability to attract investment abroad, either directly through the existing linkages or indirectly through managerial input from foreign investors. Other than that, firms with foreign ownership are generally having better corporate governance quality and management expertise that might help to ease financing constraints by facilitating loan syndication and the like in the global capital market. We set forth the following hypotheses

Hypothesis 3a: Firm size is positively related to the firm's decision of internationalisation.

Hypothesis 3b: Foreign ownership would facilitate investment from ASEAN-4 and positively related to outward FDI.

4.5 Empirical Methodology and Variables Specification

To derive the proper estimation, we used the Tobit Model to test the hypotheses. The dependent variable, outward FDI, is the proportion of a firm's assets held overseas. This variable is censured, taking the value of outward FDI if firms have international operations and a value of zero for firms without the outward FDI, therefore Tobit Model is the most appropriate. The baseline analysis is further segregated between developed and emerging nations. By distinguishing between the two types of economies, we hope to gain deeper understanding of the outward FDI, its motivations and characteristics among ASEAN-4.

As mentioned earlier, the source of data for this chapter is derived from the ORBIS dataset. The data covers the period from 2006 to 2015. This firm-level micro-data has been an excellent tool to conduct econometric analysis that captures heterogeneity across enterprises. The data provides financial and ownership information for over 44 million companies across the world. Even though the dataset is not an exhaustive database of all countries around the world, to date, this is the most comprehensive firm-level dataset that exists.

To incorporate the dependent variables explicitly, the model is expressed as follows:

$$OFDI_{it} = \beta_0 + \beta_1 F25_{it} + \beta_2 F10_{it} + \beta_3 lINTAN_{i,t-1} + \beta_4 lSALES_{i,t-1} + \beta_5 lCASH_{i,t-1} + \beta_6 lPROFIT_{i,t-1} + \beta_7 lTDTA_{i,t-1} + \beta_8 lCROA_{i,t-1} + \mu_i + \varepsilon_{it}$$

(Equation 1)

Where *i* refers to *i*th firm, *t* and *t-1* refers to time periods. In this study, F25 and F10 represented the ownership of shares by foreign investors. The first signifies that the firms possess at least 25% share in foreign investment. Whereas F10 indicates the ownership of foreign firms is below 10%. The inclusion of this variable is to understand whether the level of equity ownership has any influence in motivating outward FDI, hence Hypothesis 3b. Intangible fixed assets (*INTAN*) is used to represent firm's embedded knowledge and how far it influences the firm's internationalisation decision

(Hypothesis 2). The usage of intangible fixed assets has become common in firm-level data analysis (Bhaumik and Driffield, 2011; Blonigen, 2005). ORBIS defines intangible fixed assets as all intangible assets such as formation expenses, research expenses, goodwill and all other expenses with long term effect (Ribeiro, Menzel and De Backer, 2010).

In analysing firm's respond to outward FDI, it is important to note that the estimates might be biased by endogeneity issues. It is plausible that outward FDI into another country responds to different stimuli in that economy. Because we use the average values of these variable to estimates the coefficients, this would lead to an overstatement of the effects of each of two variables and their interaction on outward FDI. One of the way to mitigate endogeneity issues is by using lagged variables (Roberts and Whited, 2011). By lagging our variable for a period of t-1, we account the effect of overinvestment in period t. The use of panel data also is one of the possible solution to mitigate endogeneity. Panel data is capable to account for omitted variables caused by heterogeneity.

Involvement in international business demands the firms to absorb high-start-up costs associated with environmental scanning, advertising and R&D (just to name a few). Krishnan and Moyer (1997) argue that firm size is related to borrowing capacity. It has also been an indicator of scale economies, market power and empirical evidence that relates the firm to international expansion. Therefore, the variable *SALE* is used to proxy firm size (Hypothesis 3a). Since this is a firm-level data analysis, it is paramount to include a variable that can control for the firm's financial viability and profitability. Hence, we used the variables *PROFIT* and *CROA* (cash return on assets) to control for profitability. *CROA* is another way to measure firms' profitability by looking at how much cash is generated from the total assets. The use of *CROA* instead of *ROA* (return on asset) gives a reliable picture of the firm's ability to pull profits from its assets by reconciling the difference between net income and cash flow. *CASH* on the other hand shows the capability of the company to generate income internally (Hypothesis 1a), as opposed to seeking funds externally to finance its investment activities. Lastly, to measure leverage, we used *TDTA* (total debt to equity ratio). *TDTA* is an indicator of how the firm funds its investment by using debt (Hypothesis 1b). The generally accepted idea is that large *TDTA* will deter firms from making further investments and

vice versa. Nevertheless, a relatively high ratio also indicates that the firm may continue using debt to fund its investment if they have a better relationship with the lenders.

In coming out with the best analysis, we noticed the possible reverse causality that may happen between motives of outward FDI, i.e. strategic asset-seeking (at the country-level) and firms' intangible assets. Determinants of outward FDI from country-level factors arise from the home and host country characteristics and differences. These characteristics may influence firms' internationalisation decisions because they offer opportunities and resources such as infrastructure and government support, and cultivate the firms' capabilities to conduct foreign operations and deal with uncertainty in the host country. Nevertheless, firms' decision-making processes are also influenced by firms' characteristics or firms' ownership status. In the event where a firm is actually a subsidiary of another MNE, the FDI decision may be determined by the headquarters rather than home or host country characteristics. Therefore, we noted that different firms may invest in the same host country with different motives. Similarly, firms from the same sector could invest in another host country for different reasons. This possibility strengthens our intention to conduct the present study.

4.6 Results

Table 4.3 presents the descriptive statistics for each variable used in this chapter for each member of ASEAN-4. Table 4.4 reports the correlation matrix between the variables for each individual country. The results suggested that there are no significant multicollinearity issues between variables with the acceptable exception for Cash Return on Asset (CROA) and profit.

Table 4.5 examines the estimated coefficient of Tobit Model based on equation (1). Given the panel structure of the data set, the Tobit model is ideal as it takes care of the firm-specific heterogeneity outside the model specification. The performance of individual variables is as follows:

4.6.1 Firm Ownership (F10 and F25) and size

Based on the estimation results, the role of firm foreign ownership in determining outward FDI from ASEAN-4 is considered insignificant and negligible. The possible explanation for this finding is outward FDI from ASEAN-4 are mostly intra-regional as established in Chapter 2, and also dominated by firms which previously had business in the host market. The existence of RIA that foster intra-regional FDI also influence this finding. Because the firms that involved in FDI are known to the host market, therefore ownership status did not really matter. Nevertheless, the coefficient for Singapore firms investing in developed countries is significant at 5%, possessing a positive sign. This suggests that firm ownership facilitates Singapore's investment in developed countries. This also supports our earlier findings that suggested Singapore's investment is more inclined towards developed countries and Singapore's MNEs are dominated by foreign-owned firms. This explains why the directions of outward FDI from Singapore is directed towards other developed countries particularly to Australia and the United Kingdom. Other than that, we can also argue intra-ASEAN investment did not really effect Singaporean outward investment. This finding therefore rejects Hypothesis 3b and infers that foreign ownership did not influence outward FDI from ASEAN-4 with the exception of Singapore.

The role of firm size in determining outward FDI from ASEAN-4 appears to be fairly weak in the empirical analysis. Mostly, the coefficient *lSALES* appears negative and not significant. This confirms that hypothesis 3a is rejected and firm's size does not matter when it comes to outward FDI from ASEAN-4. This contradicts the findings by Trevino and Grosse (2002) who claimed that larger firm size correlates strongly to FDI. Based on the data, the majority of the firms from ASEAN-4 are unlisted firm which implies that they are either medium or small size firms which are not listed in any stock market. Unlisted companies are easier to manage as the decision-making process is within the jurisdiction of its management. A key driver of this trend is the motivation of intra-regional movement by firms to gain access to low cost labour or production and cheaper resources within the same region. Shorter physical distance within ASEAN members is another encouraging factor for these firms to mobilise its investment to cross international border. Therefore, besides ASEAN-4 large MNEs such as Petronas (Malaysia) or The Charoen Pokphand Group (Thailand) leaving footprints in the international arena, there are other smaller firms such as LKT, a semiconductor business equipment solution company from Malaysia, that have expanded their business not only to Thailand and Singapore, but also to Costa Rica and the United States. On different note, small firms also indicate the struggle to getting proper financing (Titman and Wessels, 1988). Nevertheless, as many small and medium firms from ASEAN-4 are funded by the government through the establishment of SWFs, thus size does not really matter. Despite the size and ownership status, ASEAN firms are continuing to expand internationally (Hiratsuka, 2006).

4.6.2 lCASH

The variable which represents the firms' ability to fund its own international investment by generating funds internally, generally turns out to have a negative sign but fails to achieve the levels of significance. This may be explained by the fact that the majority of ASEAN-4 international investment was funded by other means of financing. Within ASEAN-4, Thailand and Indonesia was badly effected by AFC because of their reliance on cash financing (Driffield and Pal, 2001). Over-investment issues in Indonesia and Thailand caused most of the firms to suffer during AFC. As a result, half of Indonesian corporations were insolvent and hundreds of Thailand firms had to be closed. Being

overly dependent on cash to finance the operations had proven to be perilous. However, this finding also suggests that post AFC, ASEAN firm's dependency towards cash financing has decreased. This contributes to the roles of individual government and ASEAN community which had strengthened its financial policies and institutions to safeguard the economy from further damage and exercise prudent spending. With good governance, stringent fiscal policies and sound financial management, investors' confidence has been restored, therefore facilitates firms' ability to obtain external financing. In response to hypothesis 1a, this study confers that post AFC, outward FDI from ASEAN-4 are mostly funded by other sources of financing, hence the hypothesis is rejected.

4.6.3 lTDTA

Strong evidence on the importance of debt financing in motivating outward FDI from ASEAN-4 is found in the estimation results. On average, an investment from ASEAN-4 to developed countries is significant with positive sign, except for Malaysia. On the other hand, investment to emerging countries has a significant and positive sign for Malaysia and Singapore, while Indonesia and Thailand both are not significant with negative sign. For Indonesia and Thailand, the possible explanation for this outcome can be seen from the trend of the investment itself. The majority of outward FDI from Indonesia and Thailand is intra-regional and channelled to the less developed neighbouring countries. For example, Thailand's firms, especially in the textile and food industry sectors, aggressively venture into CLMV countries (Cambodia, Laos, Myanmar and Vietnam) to exploit lower wages and cheap natural resources (Cheewatrakoolpong and Satchachai, 2017). Unlike most sophisticated and advanced industries, such as automobiles, which are mostly co-owned by foreign firms, the textile and garment industry is mostly owned by Thai owners. This group of firms are either being backed by government, or have to raise their own capital to finance international operations (cash financing). Since the nature of the company is small and the capabilities to obtain external financial are limited, debt financing is unsuitable. In the case of Indonesia, the data available is very limited, therefore, the result obtained is equivocal and may not be the best to represent the real position. Other than that, this result suggests that for business survival in developed countries, ASEAN firms need to

possess a strong financial back up. Consistent with the evidence from the earlier studies, researchers collectively agreed that moral hazard has been the cause of over-investment and external excessive borrowing by the majority of firms in Thailand and Malaysia (Krugman, 1998; Corsetti, Pesenti and Roubini, 1999; Driffield and Pal, 2001, 2006). Hence, firms need to be able to prove they possess stringent financial capabilities before being able to obtain any financial aid. Since investment in developed countries is mostly undertaken by big multinationals, their capabilities to generate corporate financing is credible. This finding supported Hypothesis 1b and affirmed that post AFC, most of outward FDI from ASEANs are funded externally.

4.6.4 lINTAN

lINTAN, representing embedded knowledge of the firms, turns out to have a negative coefficient and is statistically significant for investment in emerging markets for all ASEAN-4, except for Indonesia. This indicates that embedded knowledge is not an essential factor in motivating investment to emerging countries. One possible interpretation of this scenario is that, generally, investment to emerging markets is undertaken by small and medium sized firms and directed towards neighbouring countries. These four ASEAN countries are located within the vicinity and share the same values and culture. Some of the countries even share the same, language such as Singapore, Malaysia and Indonesia, while Thailand shares the same language with Laos. Therefore, it is realistic to assume that the firms already had embedded knowledge on how to conduct business in their neighbouring country, hence no substantial new knowledge is added. This finding therefore, reject hypothesis 2 which stated that embedded knowledge is important in determining outward FDI from ASEAN. This is supported by the findings from Bai, Du and Solarino (2018) which argued that prior knowledge and experience are difficult to transfer across different regions, therefore, the advantages that firms derive from prior internationalisation are limited when conducting cross-regional investment. The finding that the majority of outward FDI from ASEAN-4 is centred within the region therefore buttressed our arguments.

4.6.6 Other variables (lPROFIT, lCROA)

The inclusion of these variables is to control for profitability. Apparently, these two variables do not provide any implications for the estimation result for Indonesia. Whereas for Malaysia, we can observe that profitable firms are most likely to invest in emerging countries rather than developed countries. On the other hand, profitability does not have any impact on Singapore's investment in developed countries but profitable firms are less likely to invest in emerging countries. For Thailand, profitability only matters in its investment to emerging countries. With the belief that profitable firms will choose emerging countries over developed countries, this trend towards profitability might reflect firms' motivation, strategic planning and decision to expand their business operations overseas and gain capabilities (Bhaumik and Driffield, 2011).

In view of all that has been mentioned so far, the regression results support all our hypotheses. These results indicate that, ASEAN outward FDI is more inclined to use debt financing to fund international expansion rather than cash financing as happened prior to the AFC. Based on the nature of outward FDI from ASEAN-4, the flow of outward FDI is more concentrated on emerging countries, especially within the same region.

Table 4-2 Descriptive Statistic for an Individual Country (1 – 4)

Variable	*Observation*	*Mean*	*Std. Dev*	*Min*	*Max*
F25	22170	0.827	0.378	0	1
F10	23750	0.087	0.282	0	1
lINTAN	10396	0.035	0.088	-0.113	0.498
lSALES	9787	318317.2	2564600	-174065	9.670
lCASH	5541	90176.66	887429.8	-516348	2.671
lPROFIT	10258	-1.156	71.861	-4747	712.9
lTDTA	4550	4.374	150.835	-0.002	10011.88
lCROA	5522	0.290	7.786	-145.5	472.9
lROS	9664	1.051	0.795	0.988	58.795

Descriptive Statistic (Malaysia)

Variable	*Observation*	*Mean*	*Std. Dev*	*Min*	*Max*
F25	5490	0.816	0.387	0	1
F10	5980	0.120	0.325	0	1
lINTAN	3140	0.037	0.080	-0.376	0.492
lSALES	3073	650541.8	3919103	0	9.122
lCASH	2135	91256.93	365373.7	-430909	5546666
lPROFIT	3140	0.530	7.883	-160.573	330.514
lTDTA	1739	1.465	2.636	0.017	54.271
lCROA	2135	0.442	6.913	-4.789	315.657
lROS	3048	1.694	12.001	0.998	436

Descriptive Statistic (Thailand)

Variable	*Observation*	*Mean*	*Std. Dev*	*Min*	*Max*
F25	56920	0.816	0.387	0	1
F10	60360	0.091	0.288	0	1
lINTAN	7149	0.054	0.107	0	0.5
lSALES	7172	764161.7	3388386	0	9.791
lCASH	5848	63816.79	278083.7	-1009178	7834293
lPROFIT	4255	-1.195	60.571	-3860.25	178.333
lTDTA	4255	4.217	60.567	-0.233	3611.5
lCROA	5835	6.711	286.618	-629.786	21048
lROS	7128	1.345	17.149	1	1409

Descriptive Statistic (Singapore)

Variable	*Observation*	*Mean*	*Std. Dev*	*Min*	*Max*
F25	2240	0.705	0.456	0	1
F10	3220	0.109	0.311	0	1
lINTAN	827	0.036	0.075	0	0.483
lSALES	828	746953.6	1129009	30	8006538
lCASH	827	115892.1	325939.6	-1187778	2905384
lPROFIT	827	0.218	0.393	-2.496	4.746
lTDTA	827	1.202	1.366	0.011	18.985
lCROA	826	0.165	0.376	-3.776	3.903
lROS	828	1.097	1.459	0.986	41.959

Descriptive Statistic (Indonesia)

Table 4-3 Correlation Matrix for Individual Country

	F25	F10	lINTAN	lSALES	lCASH	lPROFIT	lTDTA	lCROA	lROS
F25	1.000								
F10	-0.797	1.000							
lINTAN	-0.040	0.038	1.000						
lSALES	0.002	-0.008	0.001	1.000					
lCASH	0.007	-0.014	0.003	0.989	1.000				
lPROFIT	-0.004	0.004	0.007	0.004	0.004	1.000			
lTDTA	0.005	-0.005	-0.012	-0.002	-0.002	-0.439	1.000		
lCROA	-0.005	0.005	0.005	0.005	0.005	0.860	-0.601	1.000	
lROS	-0.018	-0.001	-0.043	-0.014	-0.004	-0.085	0.005	-0.057	1.000

Correlation Matrix of Variables (Malaysia)

	F25	F10	lINTAN	lSALES	lCASH	lPROFIT	lTDTA	lCROA	lROS
F25	1.000								
F10	-0.721	1.000							
lINTAN	-0.033	-0.018	1.000						
lSALES	-0.108	0.123	0.077	1.000					
lCASH	-0.032	0.068	0.075	0.581	1.000				
lPROFIT	-0.009	0.009	-0.014	0.006	0.015	1.000			
lTDTA	0.019	-0.021	-0.051	-0.016	-0.028	-0.207	1.000		
lCROA	-0.009	0.009	0.008	0.007	0.013	0.746	-0.452	1.000	
lROS	0.003	-0.003	-0.015	-0.005	-0.003	0.002	-0.004	0.002	1.000

Correlation Matrix of Variables (Singapore)

	F25	F10	lINTAN	lSALES	lCASH	lPROFIT	lTDTA	lCROA	lROS
F25	1.000								
F10	-0.621	1.000							
lINTAN	-0.089	0.069	1.000						
lSALES	0.011	0.257	0.074	1.000					
lCASH	-0.041	0.348	0.145	0.864	1.000				
lPROFIT	0.018	-0.016	-0.011	-0.007	-0.007	1.000			
lTDTA	0.078	-0.072	-0.029	-0.036	-0.060	0.162	1.000		
lCROA	0.015	-0.014	-0.016	-0.007	-0.004	0.953	0.146	1.000	
lROS	0.024	-0.019	-0.026	-0.016	-0.017	0.025	0.117	0.026	1.000

Correlation Matrix of Variables (Thailand)

	F25	F10	lINTAN	lSALES	lCASH	lPROFIT	lTDTA	lCROA	lROS
F25	1.000								
F10	-0.622	1.000							
lINTAN	-0.117	-0.119	1.000						
lSALES	-0.758	0.459	0.060	1.000					
lCASH	-0.525	0.331	0.060	0.691	1.000				
lPROFIT	-0.077	0.039	0.029	0.131	0.230	1.000			
lTDTA	0.003	0.034	-0.118	-0.059	-0.086	-0.529	1.000		
lCROA	-0.118	0.098	0.028	0.146	0.258	0.916	-0.702	1.000	
lROS	0.027	-0.046	-0.014	-0.050	-0.022	-0.079	0.130	-0.070	1.000

Correlation Matrix of Variables (Indonesia)

Table 4-4 Tobit Regression: Full Samples by Individual Country

Dependent Variable: FDI

	MALAYSIA				**SINGAPORE**				**THAILAND**				**INDONESIA**			
	Developed countries		**Emerging Countries**		**Developed countries**		**Emerging Countries**		**Developed countries**		**Emerging Countries**		**Developed countries**		**Emerging Countries**	
	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic
F25	1.66	0.00	0.00	1.32	**0	1.97	-4.82	0.18	0.00	0.38	6.49	1.52	0.00	0.62	-9.11	0.11
F10	0.00	0.17	0.00	1.46	-7.34	1.08	0.00	0.47	0.00	0.48	-6.53	0.13				
lINTAN	0.00	0.57	**0	2.53	-1.26	0.36	***0	4.17	*0	1.74	*0	1.96	4.73	0.12	-8.50	0.24
lSALES	-1.13	0.11	-1.08	0.95	-3.30	0.60	-6.58	0.01	-1.81	0.65	7.06	0.04	-2.24	0.63	-6.48	0.16
lCASH	3.86	0.11	-6.84	0.14	-9.47	0.34	-1.15	0.85	1.08	0.50	-1.29	0.45	8.65	1.56	2.99	0.14
lPROFIT	**0.00	2.14	***0	93.21	-6.88	1.24	***4.71	3.84	-5.12	0.66	-1.20	1.57	0.00	1.25	2.60	0.17
lTDTA	-3.39	0.54	***1.38	34.94	**4.74	2.27	***9.51	3.49	***6.32	6.01	-5.90	0.28	***0	3.14	-4.25	0.21
lCROA	**0.0002	2.04	***0	80.26	2.96	1.23	***4.63	3.85	-1.22	0.15	*7.02	1.87	-3.44	0.26	-3.95	0.24
Constant	0.00	0.27	-6.40	0.66	**0	2.42	0.00	0.75	0.00	0.38	1.30	0.19	0.00	1.42	*3.93	1.77
Log likelihood	4297.54		24167.88		18064.67		11406.22		3059.53		9822.24		623.67		1598.32	
sigma_u	0.00	1.27	***0	24.53	***0	19.20	***0	15.79	***0	5.35	***0	15.48	***0	4.29	***5.26	30.49
sigma_e	***0.0019	38.71	***0	65.41	***0	55.90	***0	47.26	***0	25.59	***7.22	40.81	***6.28	10.05	***2.16	16.73
Rho	0.01		0.71		0.62		0.52		0.14		0.81		0.91		0.86	
Observations	893		2496		1829		1302		380		964		61		140	

*Note: Standard errors in parenthesis. ***, **, and * indicate that the coefficient is significantly different from zero at the 1%, 5% and 10% respectively. The models are estimated with the correction of heteroscedasticity and autocorrelation. All variables are lagged by one year.*

4.7 Conclusion

There has been a significant expansion in outward FDI activities by ASEAN firms, especially post AFC. This chapter has sought to explain the determining factors that are important to the growth of outward FDI by using firm-level data.

Debt financing emerges as an important determinant of overseas investment activities. Taking heed from the AFC, the majority of ASEAN countries exercise stringent control and prudent financial activities to ensure sustainable economic development. As a result, firms engaged in international investment activities need to demonstrate strong financial viability, evidencing their capability for business survival. The empirical analysis also brings out another perspective on the dependency of cash financing. Prior to AFC, some ASEAN firms used cash financing by generating internal funds for international business purposes. This is evidently true for firms from Indonesia and Thailand (Driffield and Pal, 2006). Nevertheless, after being severely hit by the AFC, this has changed towards different types of financing.

Firm size and ownership does not influence outward FDI expansion. However, encouragement from ASEAN itself boosted intra-regional investment. With the creation of the ASEAN Economic Community (AEC), together they stimulated outward FDI flow within the region. Uneven economic development among all ASEAN member states also inspired firms from stronger nations to exploit the less developed member countries (Sirivunnabood, 2017). Many firms relocated their production facilities to gain advantages of lower labour costs and cheap natural resources. While big firms focused their investment in developed countries, small and medium sized firms strengthened their foothold regionally by manipulating the similarity of characteristics found out in home and host country. Henceforth eliminating the need to have prior knowledge on the host country.

Finally, we have managed to obtain plausible econometric analysis of this firm-level data, however there are many ways on how this research can be extended. The difficulties in obtaining substantial data for the less developed economies such as Indonesia, has somewhat hampered the findings. Also, to gain an in depth

understanding of how outward FDI in ASEAN works, the analysis should also include other member states such as Philippines and Vietnam. This is because, recently, the contribution from these two member states has become increasingly relevant to the development of outward FDI from ASEAN. Additionally, the duration of the time period considered should be extended in order to obtain better estimation.

CHAPTER 5

5 Conclusions

This concluding chapter summarises the key findings from the empirical chapters, discusses the implications for policy makers, and it will outline the limitations of the present research and then discuss future research opportunities. The thesis has addressed three main research questions related to this study as stated in Chapter 1. The broad objective of this research is to explore the outward FDI from ASEAN-4 with a particular emphasis on identifying the main determinants. This research is based on topical and timely themes. The thesis has contributed to our understanding of the patterns and determinants of outward FDI from ASEAN by highlighting significant theoretical and methodological advancements. A review of literature has revealed that there is a paucity of literature on determinants of FDI in ASEAN[14]. This study is therefore among the first comprehensive studies of outward FDI in ASEAN that provides the analysis of outward FDI determinants at macro and micro economic levels using panel based techniques. While the detailed contributions and limitations are clearly discussed in each empirical chapter, the summaries are as follows:

[14] See Appendix 2.1 for the list of the available literature on ASEAN.

5.1 Overall Conclusions

This research on which this thesis based is devoted to the analysis of the determinants of outward FDI from small emerging market focusing on ASEAN-4. It explores the determinants of outward FDI from three different perspectives starting with the analysis of the host country characteristics, identifying location determinants at the regional level and utilising firm-level data to access the role of enterprises in determining the direction of outward FDI. This analysis is based upon the motivations of outward FDI; market-seeking, resource-seeking, efficiency and strategic-asset seeking.

In the first two empirical chapters, the variables are derived from the existing literature of outward FDI, which is largely based on the studies of developed economies. The motivation is to test the extent to which the mainstream FDI theories can explain the outward FDI from small emerging markets. One of the original contributions that this research makes is the adoption of panel data technique in both chapters Two and Three, which allows the generation of robust empirical findings that were previously difficult to attain due to the paucity of data. Even though we employ the same database for Chapters Two and Three, the empirical setting is different. In Chapter Two, we tested the hypotheses between individual ASEAN-4 countries against 71 host countries and presented the result accordingly. By doing so, we can make a comparison between ASEAN-4 as a unit, and as a single entity. To assess whether time changes have any impact on the outward FDI, we later divided the analysis into two time periods, namely before and after GFC. This method allows the identification of which host country characteristics have greater influence on outward FDI from this sub-region. In Chapter Three, the data is grouped according to the region and regional integration agreement (RIA) in which they belong. To ensure the robustness of the models, we employed two different estimations; the Tobit and Random Effect. Even though most of the variables used are the same in both chapters, some modifications are applied for better understanding and to suit the research setting.

The last empirical chapter adopts a totally different set of data. If the two preceding chapters concern macro level analysis at country and regional levels, Chapter Four focuses more on micro firm-level analysis, an area that previously been given less

attention due to data availability. We used the same panel technique for the data that covers period from the year 2006 to 2015. The data from a total of 9331 companies within ASEAN-4 is chosen based on their involvement in the overseas operation. Constructed from the literature, a new set of variables is adopted to test the hypotheses. The result is presented according to an individual country for comparison. The findings appear to be new as no previous study was found to have employed the same set of variables to test the hypotheses.

The originality of this study is its consistent with the literature, the findings from the country's perspective, provide a strong empirical support from hypotheses that outward FDI from ASEAN-4 is determined by market-seeking. Among the important characters that delineate investment from this sub-region are export-led investment and the importance of trade liberation that promotes flexible investment policies. Among this two, a common characteristic that applies to all countries in question is "trade openness" which translates as a trade liberalisation. This finding gives a clear indication that as a governing body, ASEAN plays an effective role in fostering intra-regional FDI. This is a new finding that appear not to have been known prior to the results of the present study. In Chapter Three, we established that intra-regional FDI is the epitome of ASEAN-4 investment, therefore this finding on individual country supports that premise. Among ASEAN countries, they have been aggressively supporting each other to ensure sturdiness of the regional economic growth to such an extent that the world regards ASEAN as one entity rather than an individual independent unit. The mobility of factors of production within ASEAN has supported the proliferation of trade among the member states. Nevertheless, the findings fail to provide any support to the proposition that over time, market characteristics may change the landscape of ASEAN outward FDI. On a brighter note, this proves that our findings are robust and acceptable.

The findings of this thesis make a contribution to the body of knowledge on FDI as evidence from Chapter Three which demonstrated that market-seeking is the main determinant of outward FDI from ASEAN-4. In choosing location for FDI, MNEs from ASEAN-4 considers three important market factors: market richness, trade liberalisation, and export-leading investment. If in Chapter Two we were unable to ascertain that the host market size influences FDI, in the current chapter, host market richness instead of market size, proved to be positive and significant across regions

except in South Asia. The significance of this study's findings is that the physical market size (in terms of population) does not matter to ASEAN-4; rather the quality of market plays a significant role. This is because market richness exhibits the existence of competent human capital, technology readiness and ready market. However, it was also found that export-led investment only matters when the FDI's location is either in Region 1 (East Asia and Pacific) or Region 6 (South Asia). The originality of this finding confirms that outward FDI from ASEAN-4 is both intra-regional and extends to other regions within close proximity. This has also shown that outward FDI to other regions with developed economies, such as Europe, does not require ASEAN-4 MNEs to have an initial investment with the host country. A factor that could contribute to this assertion is the firm's involvement in FDI. From this research, we establish that only Singapore and to some extent, Malaysia have a significant amount of investment in a developed region, whereas firms from Thailand and Indonesia only have investments in other ASEAN countries or emerging/less developed countries. Only very few firms from these two countries have extra-regional investment. On the contrary, the importance of choosing a location with good investment practice is substantial. This is evident when variable *openness* is positive and significant across regions. The international business's literature argues that firms from emerging markets are generally lacking in international experience, therefore choosing a location with encouraging investment atmosphere can help them in initiating direct investment.

Besides market-seeking being the main determinant of outward FDI from ASEAN-4, our findings validate that seeking for natural resources also motivates FDI from this region. Apart from Indonesia, firms from Malaysia, Singapore and Thailand continue to seek for natural resources within and outside the region. This is despite the aforementioned countries (excluding Singapore) being endowed with abundant natural resources. The findings of this thesis have revealed that firms have different motivations for pursuing resource-seeking FDI. For example, a firm from Singapore is looking for land, Malaysia for oil and gas reserves, while Thailand for raw materials to support their textile industries. As for Indonesia, one possible explanation for this scenario is the availability of natural resources in the country. Indonesia is blessed with abundant land, substantial oil and gas reserves as well as palm oil and minerals, therefore seeking for natural resources may not be the main motivation, rather how to efficiently manage it, is paramount. The findings in Chapter Three also established that

in choosing the location of FDI, the availability of natural resources in the host region is a determining factor. The significance of Region 1 and Region 6 affirmed that investment from ASEAN-4 is intra-regional.

In Chapter Two, evidence to support efficiency/asset-seeking FDI cannot be established. This is because we related this type of FDI to technology acquisition rather than technology sharing. The variable patent, which is measured by the number of patent registrations, failed to indicate the type of technology seeking investment ventures by firms from ASEAN-4. The inclusion of variable *labour force* in Chapter Three, enable us to enhance the analysis. Therefore, it can be inferred that the rationale behind ASEAN-4 firms seeking investment in other emerging regions or less developed regions is to transfer technology.

Other significant contributions of this research is the importance of institutions in determining direct investment from ASEAN-4. Four variables (political risk, internal conflict, government stability and corruption) are used to gauge the importance of institutions, but all produced different results. None of the variables was found to be significant across countries or regions. This implies that each ASEAN-4 country responds differently to the institutional issues in the host economies. Using country-level analysis, corruption is positively significant for Malaysia and Singapore but not for Indonesia and Thailand. This is a new finding and suggests several implications; 1) Malaysia, being consistently ranked in the bottom of the list of corrupt countries, exploits its experience dealing with corruption by investing in other corrupt countries, 2) being themselves heavily corrupt, corruption does not affect nor deter investment from Indonesia and Thailand, 3) further investigation is needed to explain why Singapore, one of the corruption-free countries gives a positive and significant result. Nevertheless, over time, corruption is found to be insignificant for Singapore, indicating that corruption does not determine Singapore outward FDI. Regional analysis in Chapter Three illustrated similar findings where the variable corruption is found to be positively significant for ASEAN-4 outward FDI in Region 1 and Region 6. Even though general findings in the literature argue that corruption has a negative effect on outward FDI, our results reported otherwise. Therefore, our findings stating that the familiarity of dealing with corruption domestically is a complementing factor to ASEAN-4 (except Singapore) in determining the location for outward FDI are

supported. Consistent with corruption, the other three variables that proxy institutional factors also clearly display a context-specific finding. Internal conflict and risk are important especially when firms intend to venture into countries or regions with domestic issues. In summary, the main finding relating to the institutional factor is the fact that it is context-specific.

As mentioned earlier, the main purpose of the third empirical chapter is to analyse the determinants of outward FDI from ASEAN-4 by focusing on the firm-level data. We argued that there is limited literature from ASEAN that discusses this topic due to the problem of obtaining aggregate firm-level data, particularly with regards to emerging multinationals from smaller Southeast Asian countries. By analysing the firm's characteristics, this study attempts to fill the significant gaps in the literature. This research's contribution in this regard is that it provides evidence that the firm's capability in generating financial support depends on the firm's characteristics. Evidently, prior to AFC, ASEAN experienced rapid economic expansion. With promising economic growth and good governance, ASEAN MNEs managed to raise investors' confidence, hence increasing foreign borrowing. Later, excessive overborrowing was identified as one of the causes of AFC. On the other hand, economic prosperity also encouraged firms to retain earnings and hold more cash, preparing for growth opportunities. This type of investor mostly emerged from poor governance countries where financing is difficult to obtain. Some firms in ASEAN-4 display this characteristic, especially those from Indonesia and Thailand. Nevertheless, one important finding drawn from this research is the financing support from ASEAN SWF. The availability of SWF, and strong regional and government support helped most of ASEAN-4 MNEs to recuperate after GFC and sustain their economic position despite having faced difficulties for a brief of time.

Overall, outward FDI is an important activity in emerging and developed economies. This research analysed how a group of small emerging countries with economic constraints exploit their ability and capability to compete with the MNEs from developed and larger emerging economies. Using regional, country and firm-level panel data analysis, the study is among the first to provideempirical evidence of the determinants of outward investment from ASEAN-4. By juxtaposing the country characteristics, regional differences and firm experiences allows us to discern more

clearly the country-level and industry-level variables that shape the determinants of FDI from ASEAN-4.

5.2 Implications of the Study

ASEAN has aggressively promoted investment flow and integration within and beyond the region by pursuing a free and open investment regime. From one perspective, this is done to foster economic growth and improve social conditions in the region. From a different view, an integrated region will create an attractive investment environment and a promising future. Despite AFC and GFC, the trends of outward FDI from ASEAN-4 have continuously improved due to strong microeconomic foundations and a unified region. The attractiveness of ASEAN as a region and its individual member states has strengthened the region's investment agenda. This research helps to raise some important implications for policy makers.

Our empirical findings confirmed that the differentiating effect of country and regional characteristics may influence outward investment decisions by ASEAN-4. Host country characteristics such as market size, market richness, and trade liberalisation are among the main determinants that affirmed market-seeking investment motives. On the other hand, institutional factors such as corruption and conflict proved to be context-specific. This reflects the policy choices of the individual host countries. Therefore, we are hoping that this thesis will shed some light to the policy makers of the home countries to understand the host countries in depth. At times, emerging MNEs also tend to expand abroad via their established network in order to pursue risk-diversification strategies, whilst newly established MNEs would consider replicating the success stories. This expansion process requires MNEs to have profound market knowledge, therefore it is our aspiration that this research will offer some insights on the issues. On a different note, government support in ensuring good governance, sound political climate, effective investment, and strong fiscal policies will help in enhancing investors' confidence. The need to keep a strong regional bonding between ASEAN governing body and its member states proved to be very important for mutual advantage. Thus, this empirical study is likely to be significant for theoretical and practical applications related to outward FDI, particularly in a small emerging country.

a. Implications for Theoretical Development

Theoretically, this study presents a comprehensive and critical review of the relevant FDI theories and existing empirical studies of the determinants of outward FDI, particularly from small emerging markets. The review of the literature reveals the need to enrich the literature on small emerging markets, which may or may not be consistent with the mainstream theories. The findings suggested that some of the mainstream FDI theories are still applicable to small emerging markets with some modifications needed to enhance knowledge and understanding. The concept of the three papers brings a broader research context. These contexts include ASEAN outward FDI, an analysis of host country determinants, location choice at the regional level, and a firm-specific macro perspective analysis. Consequently, the framework has significant implications for theoretical development in the area related to FDI behaviour of EMNEs. Thus, the formulation of the conceptual framework has significant implications for theoretical development in the area related to FDI behaviour of MNEs.

b. Implications for Business Practices

The decision to engage in FDI is regarded as strategic and crucial for any country or firm as it may determine the entity's success or trigger a market failure. The empirical results from the study present managerial implications for potential investors in strategising their outward FDI. The study has identified the determinants that motivate outward FDI from the region. The FDI motivations (market-seeking, resource-seeking, strategic asset-seeking and efficiency-seeking) approach is matched with an investors' intention and the endowments in a location, thus representing a combination of internal and external factors. On the other hand, the empirical findings indicate that an investing firm needs to conduct a thorough external examination of the determinants of outward FDI that will lead to the optimum decisions. In Chapters One and Two, several determinants were identified as crucial in determining the internationalisation decision. In particular the need to understand the market

thoroughly before deciding on cross-border investment was highlighted. The identification of micro-specific determinants at the firm level will help the investing firms to formulate specific policies regarding outward FDI.

The extension of data, findings, knowledge and understanding generated from this research can be disseminated in the following areas and along its pathways:

1. Publications and conferences

   Parts of the thesis can be presented in a series of publications or conference proceedings. The aim is to report the scholarly findings to help the dissemination of knowledge into application. This is also a contribution to academic literature, across and within the discipline in terms of knowledge, methodology, theory and application. At minimum, this thesis should produce up to three published articles representing each of the empirical chapters.

2. Policy Makers

   This research can help policy makers to develop policy briefs and strategies for implementation. Robust data and analysis can be enhanced for a country or corporation to better suit the needs of the organisation. Policy makers will be able to use the data to obtain a clear picture of the outward FDI's behaviours of EMNEs.

5.3 Limitations and Future Research

The empirical results need to be viewed in the context of inherent limitations. The major challenge to produce a robust finding is the availability of data. In fact, this is the common obstacle faced by the researcher, especially concerning smaller emerging economies. The aggregate data used in this research to analyse FDI determinants at country and regional levels is based on the data accumulated by UNCTAD, which obtained the database from the reporting economy. Therefore, not every country has had a similar way of recording and presenting the data. As reported by UNCTAD, the bilateral FDI data is collected primarily for balance-of-payment purposes and based on the information recorded by the country's central bank. Very often data on FDI by stock are available for countries because of their reliance on exchange record, also the data may not necessarily reflect the actual value. Owing to the lack of comprehensive data, the result needs to be interpreted as an intention to gain a better understanding of the general overview.

Concerning firm-level study, the analysis is limited to the data that can be obtained from the specific database used. Since the data does not have any indicator as to which project is greenfield FDI, a joint venture, and so on, the use of a firm's proportion of overseas assets is merely for analytical purposes. Additionally, firms in some countries were not fully cooperative in submitting comprehensive information to the regulatory body, hence hampering the originality and credibility of the data. The environment of FDI is dynamic and subject to future changes. The emergence of new firms with new methods of handling business provides an interesting platform for future research to analyse the changes of FDI determinants over time. A longer panel data would also allow for better estimation of certain variables and enable better hypothesis prediction.

This study has established a foundation by formulating an estimated conceptual framework for outward FDI in ASEAN. In light of findings from the empirical analysis, several addition avenues for future research are exposed.

Firstly, future research could test the conceptual framework of this study in different research settings, such as by expanding the data to the rest of ASEAN countries and extending the duration to before AFC, for example, between the early 90s to the current year. Therefore, a uniform pattern or behaviour can be established with regards to outward FDI from ASEAN.

Secondly, future studies could investigate how variables determining the performance of outward FDI can influence the choice of FDI location. To do so, the current conceptual framework should to be expanded through the addition of performance variables in order to accommodate variables determining the outward FDI performances.

Thirdly, the variables that determine outward FDI can also be expanded by incorporating more variables, for example, those that indicate institutional factors. By doing so, a uniform set of determinants can be identified that best describe the outward FDI behaviour from this region.

Lastly, future research could also examine the framework of this study in the broader setting of other small emerging countries from the other regions. In such research, it would be possible to examine regional factors of the host country's characteristics.

Appendix

Appendix 2.1 Literature on determinants of outward FDI from ASEAN

Authors	Research theme	Theoretical Foundation	Setting	Findings
(Ariff and Lopez, 2008)	Patterns and determinants of outward FDI	Push and Pull factors, OFDI strategic reasons	Malaysian companies	Main factors that motivated FDI from Malaysia are similar to those that motivated FDI from developed countries with additional factors which are brands and technology, strategic assets and decentralization of operations.
(Masron and Shahbudin, 2010)	Determinants	Push Factors Pull Factors	Malaysia and Thailand – country level data 1980 - 2006	Domestic market, inward FDI, ownership advantages, increasing cost of domestic operation and home country trade openness are important in boosting OFDI. Malaysia and Thailand are more into resource-seeking FDI rather than market-seeking FDI.

(Hiratsuka, 2006)	Trends and drivers of OFDI from ASEAN	Combination of traditional trade theory and modern theory in explaining OFDI	Conceptual paper	ASEAN has extended its FDI capabilities regionally and globally. ASEAN FDI started with neighbouring countries before being a global player. Most adopted motives are efficiency seeking where they sought after cheap labour and land. The typical industry is communication equipment followed by agro-based industry.
(Masron, 2013)	Implication	Eclectic paradigm	ASEAN Free Trade Agreement (AFTA), ASEAN Investment Area (AIA)	AIA and AFTA have positive implication to ASEAN's FDI.
(Goh and Wong, 2011)	Determinants	Motives of FDI	Malaysian OFDI	Foreign market size, international reserves, real effective exchange rate and trade openness are the determinants of Malaysian OFDI.
(Ging, 2010)	Implication	Impact of FDI on economic growth	Singapore (1972 – 2006)	Increased outward FDI leads to higher GDP per capita, but higher GDP per capita leads to a decline in outward FDI

(Blomqvist, 2002)	Determinants	Eclectic paradigm	Singapore	Protected market and ASEAN membership do not seem to be important to Singapore investors, but labour cost is.
(Goh, Wong, and Tham, 2013)	Relationship between trade and FDI	Hausman-Taylor Method (Econometrics)	Malaysia - Panel data by pooling the time series (1991 to 2009) with cross-sectional (59 countries) data.	OFDI and trade linkages are not significant as OFDI is dominated by the services sector, which generally is non-tradable.
(Ratiphokhin, 2011)	Determinants	Eclectic Paradigm	Singapore's OFDI to Thailand (1981-2009)	Singapore's FDI in Thailand were stimulated by Thailand's market size expansions and Baht depreciation.
(Kueh, Puah, and Mansor, 2012)	Determinants	Econometrics	Malaysia (1991 – 2005)	Real income, exchange rate, trade openness and interest rate are positively affected Malaysia's OFDI
(Hashim, 2012)	Motives	Locational factors	Case study – Eng Technology Co Ltd (Malaysia)	Domestic and global competition push the company to venture abroad.

(Chen and Zulkifli, 2012)	Implication	General production function (Econometrics)	Malaysia (1980-2010)	OFDI significantly affect growth.
(Gaute, Winfried, and Peter, 2006)	Motives	Vertical and horizontal FDI	Singapore	Singapore OFDI, which focused on manufacturing sectors, is attracted to larger market especially low-income ASEAN countries. Strong host country financial institutions
(Saad, Noor, and Nor, 2014)	Determinants	Eclectic Paradigm	Malaysia OFDI using time series data from 1981 - 2011	Major push factors of OFDI from Malaysia are; GDP, level of IFDI stock, productivity level, exchange rate, export level and patent.
(Lecraw, 1993)	Implication	IDP	Indonesia (1986 – 1990)	Indonesian multinationals have gone abroad not only to exploit their ownership advantages but also to access and develop ownership advantages they did not previously possess.
(Darmawan and Azzahra, 2013)	Determinants	Eclectic paradigm and Gravity Approach	Indonesia	Economy growth, labour costs, infrastructure, exchange rate and political stability are the significant FDI determinants.
(Goh and Wong, 2010)	Policy Implementation	Multivariate Regression	Malaysia	Outward FDI encouraged by market-seeking incentive and the adoption of outward-oriented policies by government. The empirical results reveal that there is a positive long-run relationship between Malaysia's OFDI and its key determinants, viz. foreign market size,

				real effective exchange rate, international reserves and trade openness.
(Kueh, Puah, & Apoi, 2008)	Determinants	Vector Error Correction Model	Malaysia	The findings verified that the outward FDI of Malaysia is determined by income, exchange rate and openness of the economy in both the short- and long-run.
(Pananond, 2008)	Implication	Concept Paper	ASEAN	Outward FDI can certainly become another force that drives regional economies closer together.
(Pangarkar and Lim, 2003)	Determinants	Survey	Singapore	FDI performance was positive under the following conditions: the host government attitudes were positive and the subsidiaries were of large size relative to the parent.
(Yean, 2007)	Motivation	Case Study on seven firms	Malaysia	The main motivations for these firms to invest abroad are from low labour cost advantage in the host country, saturation of the domestic market, and the need to enhance their export-competitiveness in third-country markets and to exploit the domestic market potential in other countries.
(Ismail, 2009)	Determinants	Semi Gravity Model	ASEAN	Factor that influence FDI are market size for host and source country, shorter the distance between country, common in language and border, the extended market relative to distance. Other macroeconomic factors also attract FDI including low inflation rate, low exchange rate and good governance.

(Tan, Goh, and Wong, 2016)	Impact	Panel data of eight ASEAN country	ASEAN	This paper finds that the gross domestic saving, inward FDI and outward FDI have a positive long-run impact on the gross domestic investment even though their long-run estimates are inelastic. The empirical study reveals that both inward FDI and outward FDI, to some extent, are complementary to the gross domestic investment.

Appendix 2.2 Results for the determinants of ASEAN-4 outward FDI from 2001 – 2006 and 2007 – 2012 (RE Model)

	ASEAN-4 (overall)		**Malaysia**		**Singapore**		**Thailand**		**Indonesia**	
	RE 2001-2006	**RE 2007-2012**	**RE 2001-2006**	**RE 2007-2012**	**RE 2001-2006**	**RE 2007-2012**	**RE 2001-2006**	**RE 2007-2012**	**RE 2001-2006**	**RE 2007-2012**
lgdp	3.179 (1.213) ***	9.251 (6.837)	2.798 (1.436) *	1.297 (7.741)	1.421 (4.303) ***	4.739 (2.257) **	1.103 (3.159)	-2.756 (2.146)	-4.618 (5.977)	-5.630 (2.461)
lpatent	5.231 (6.047)	1.227 (3.776)	5.699 (6.459)	3.100 (3.993)	1.211 (2.249)	3.055 (3.574)	9.012 (1.418)	1.392 (1.204)	3.934 (2.843)	4.446 (1.287)
lexp	1.387 (3.432) ***	5.860 (2.084) ***	8.331 (5.202)	5.723 (2.193) ***	1.417 (8.169) *	3.709 (5.772)	4.819 (1.723) ***	4.847 (1.145) ***	3.023 (2.447)	1.169 (7.381)
lopen	6.201 (2.239) ***	1.206 (9.767)	8.335 (2.312) ***	2.186 (1.078) **	1.758 (8.174) **	2.900 (3.567)	7.696 (4.488) *	4.869 (2.928) *	2.712 (1.036) ***	4.784 (3.421)
poli	-1.168 (5.187) **	-6.891 (3.201) **	-1.892 (5.231) ***	-6.559 (3.524) *	-3.240 (1.927) *	-1.914 (1.083) *	-2.021 (1.049) *	-1.103 (9.921)	3.590 (2.433)	-9.217 (1.057)
lgs	-1.575 (2.978)	2.972 (1.476)	6.683 (5.538)	3.309 (1.658)	-4.462 (1.087)	2.608 (5.378)	4.513 (9.866)	4.860 (5.368)	1.246 (1.467)	1.917 (3.322)

lconflict	1.862	-2.207	-2.927	-7.412	4.576	-7.535	5.525	1.953	-1.294	-9.851
	(3.965)	(3.014)	(4.611)	(3.394)	(1.446)	(1.032)	(1.221)	(9.347)	(2.001)	(9.224)
				**						
lcorrup	2.322	1.117	4.302	2.138	5.153	3.318	8.381	2.874	-6.224	6.586
	(2.221)	(1.408)	(2.566)	(1.548)	(8.148)	(4.661)	(6.832)	(4.504)	(1.124)	(4.823)
lore	9.861	7.049	3.381	1.836	3.237	2.008	1.615	1.559	-1.787	-1.441
	(7.689)	(3.637)	(7.643)	(3.994)	(2.734)	(1.224)	(1.548)	(1.153)	(3.629)	(1.298)
		*				*				
Obs	1322	1082	329	268	331	274	331	269	331	271
R-sq:										
Within	0.025	0.002	0.064	0.003	0.046	0.008	0.014	0.005	0.009	0.001
Between	0.125	0.163	0.334	0.397	0.297	0.368	0.452	0.500	0.210	0.238
overall	0.105	0.093	0.258	0.234	0.247	0.200	0.146	0.262	0.170	0.237

Notes: Standard errors are in parenthesis

***, **, * indicate that the coefficient is significant at the 1, 5 and 10% levels, respectively

Appendix 4.1 Top 100 ASEAN companies have strong assets and significant cash holding, 2014 (Millions of dollars)

Company	Country	Industry	Net Income	Total Assets	Market Capitalization	Cash or near holding
Singapore Telecommunications	Singapore	Telecommunication	2,901	31,249	46,219	410
DBS Group Holdings	Singapore	Banks	3,194	332,653	38,447	14,733
Overseas-Chinese Banking Corp	Singapore	Banks	3,033	302,881	31,457	19,109
United Overseas Bank	Singapore	Banks	2,565	231,551	29,678	26,484
PTT	Thailand	Oil, gas and consumable fuels	1,718	54,062	28,120	6,199
Bank Central Asia	Indonesia	Banks	1,391	44,443	26,034	4,710
Malayan Banking	Malaysia	Banks	2,053	182,864	24,405	18,858
Bank Rakyat Indonesia	Indonesia	Banks	2,045	64,518	23,121	5,935
Advanced Info Service	Thailand	Telecommunication (wireless)	1,110	3,839	22,675	434
Telekomunikasi Indonesia	Indonesia	Telecommunication	1,235	11,335	22,629	1,424
Tenaga Nasional	Malaysia	Electric utilities	2,000	34,993	22,093	2,565
Avago Technologies	Singapore	Semiconductor	263	10,491	21,936	1,604
Bank Mandiri	Indonesia	Banks	1,676	68,788	20,227	5,746
Public Bank	Malaysia	Banks	1,381	98,735	20,181	3,220
Siam Commercial Bank	Thailand	Banks	1,642	82,033	18,771	1,282
Sime Darby	Malaysia	Industrial Conglomerate	1,034	15,871	18,271	-
Axiata Group	Malaysia	Telecommunication (wireless)	718	14,030	17,279	1,457
Kasikornbank	Thailand	Banks	1,421	72,596	16,653	1,764
Siam Cement	Thailand	Construction materials	1,035	14,154	16,335	579
Wilmar International	Singapore	Food products	1,156	43,558	15,642	3,127
Maxis	Malaysia	Telecommunication (wireless)	525	5,172	14,685	437
SM Investments Corp	Philippines	Industrial conglomerates	640	15,912	14,506	1,546

Philippines Long Distance Tel	Philippines	Telecommunication (wireless)	768	9,752	14,030	596
Digi.com	Malaysia	Telecommunication (wireless)	621	1,229	13,700	150
PTT Exploration & Production	Thailand	Oil, gas and consumable fuels	662	23,328	13,511	3,947
CIMB Group Holdings Bhd	Malaysia	Banks	950	118,280	13,376	10,332
Thai Beverage	Thailand	Beverages	668	5,226	13,079	68
Petronas Gas	Malaysia	Gas utilities	563	3,787	12,523	182
Petronas Chemicals Group	Malaysia	Chemicals	754	8,129	12,452	2,584
Keppel Corp	Singapore	Industrial conglomerate	1,488	23,820	12,104	4,330
Perusahaan Gas Negara	Indonesia	Gas utilities	723	6,215	11,719	1,216
CP	Thailand	Food and staples retailing	313	9,918	11,601	980
IHH Healthcare	Malaysia	Health care	231	8,179	11, 258	704
Bangkok Bank	Thailand	Banks	1,119	83,862	11,252	1,822
SM Prime Holdings	Philippines	Real estate	414	8,691	10,999	788
Ayala Land	Philippines	Real estate	333	8,693	10,689	641
Capitaland	Singapore	Real estate	916	33,301	10,641	2,043
Airports of Thailand	Thailand	Transportation infrastructure	379	4,741	10,525	216
IOI Corp	Malaysia	Food products	1,040	4,777	10,396	-
JG Summit Holdings	Philippines	Industrial conglomerates	411	12,489	10,352	838
Global Logistics Properties	Singapore	Real estate	685	13,947	10,025	1,446
Genting Singapore	Singapore	Hotels, restaurants and leisure	501	9,566	9,870	2,791
Singapore Airlines	Singapore	Airlines	286	17,995	9,786	3,826
Krung Thai Bank	Thailand	Banks	1,022	83,238	9,640	2,269
Ayala Corporation	Philippines	Diversified financial services	419	16,228	9,609	2,030
Genting	Malaysia	Hotels, restaurants and leisure	553	20,932	9,419	4,681
Gudang Garam	Indonesia	Tobacco	453	4,684	9,396	128
MISC	Malaysia	Marine	674	11,876	9,204	1,382
Bank Negara Indonesia	Indonesia	Banks	910	33,514	9,152	2,904
Universal Robina Corp	Philippines	Food products	262	1,734	9,078	224

BDO Unibank	Philippines	Banks	514	41,655	8,788	6,951
Great Eastern Holdings	Singapore	Insurance	694	49,579	8,572	2,457
Bank of the Philippines Islands	Philippines	Banks	406	32,414	8,262	5,598
Bangkok Dusit Med Service	Thailand	Health care	228	2,833	8,096	109
Singapore Tech Engineering	Singapore	Aerospace and defense	420	6,280	8,003	1,104
Sapurakencana Petroleum	Malaysia	Energy equipment and services	343	7,948	7,856	345
Hong Leong Bank	Malaysia	Banks	648	53,079	7,735	-
Semen Indonesia	Indonesia	Construction materials	469	2,761	7,731	397
Intouch Holdings	Thailand	Telecommunication (wireless)	455	1,662	7,672	90
Telekom Malaysia	Malaysia	Telecommunication	254	6,461	7,308	853
Aboitiz Power Corp	Philippines	Independent power producers	376	4,845	7,056	900
City Developments	Singapore	Real estates	608	14,872	7,050	2,817
PTT Global Chemical	Thailand	Chemicals	463	12,299	7,021	469
Dynasty Ceramic	Thailand	Building products	38	158	7,005	6
Total Access Communication	Thailand	Telecommunication (wireless)	330	3,234	6,943	177
Kalbe Farma	Indonesia	Pharmaceuticals	174	1,000	6,901	153
Kuala Lumpur Kepong	Malaysia	Food products	307	3,928	6,842	395
AMMB Holdings	Malaysia	Banks	557	40,643	6,646	3,771
Genting Malaysia	Malaysia	Hotels, restaurants and leisure	363	5,940	6,591	791
Aboitiz Equity Ventures	Philippines	Industrial conglomerates	414	6,281	6,524	1,129
Manila Electric Company	Philippines	Electric utilities	407	6,014	6,449	1,553
Petrovietnam Gas Joint Stock	Vietnam	Gas utilities	667	2,516	6,249	1,126
Central Pattana	Thailand	Real estates	225	2,705	6,205	76
Sembcorp Industries	Singapore	Industrial conglomerates	632	12,966	5,994	1,254
Singapore Exchange	Singapore	Finance	254	1,316	5,963	-
Big C Supercenter	Thailand	Food and staples retailing	223	3,123	5,941	347
RHB Capital	Malaysia	Banks	623	62,646	5,598	6,185

Chareon Pokphand	Thailand	Food products	325	12,664	5,472	1,021
Starhub	Singapore	Telecommunication (wireless)	292	1,500	5,412	199
Singapore Press Holdings	Singapore	Media	322	5,326	5,371	355
Capitaland Mall Trust	Singapore	Real estate investment trusts	489	7,442	5,332	853
Siam Makro	Thailand	Food and staples retailing	150	1,327	5,287	139
Hong Leong Financial Group	Malaysia	Banks	526	59,256	5,268	-
International Container Terminal Services	Philippines	Transportation infrastructure	182	3,401	5,235	194
YTL Corp	Malaysia	Multi-utilities	479	19,020	5,231	-
Sembcorp Marine	Singapore	Machinery	442	6,219	5,143	813
Globe Telecom	Philippines	Telecommunication (wireless)	301	4,012	5,133	375
Jollibee Foods Corp	Philippines	Hotels, restaurants and leisure	121	1,210	5,127	170
Alliance Global Group	Philippines	Industrial conglomerates	298	9,156	5,114	1,835
Metropolitan Bank & Trust	Philippines	Banks	453	35,864	5,092	5,594
Chareon Pokphand Indonesia	Indonesia	Food products	147	1,678	4,987	71
Petronas Dagangan	Malaysia	Oil, gas and consumable fuels	153	2,725	4,857	525
PPB Group	Malaysia	Food products	280	5,313	4,842	194
DMCI Holdings	Philippines	Industrial conglomerates	243	3,066	4,659	341
Astro Malaysia Holdings	Malaysia	Media	141	2,121	4,564	372
Vietnam Dairy Products Jsc	Vietnam	Food products	286	1,205	4,467	71
Golden Agri-Resources	Singapore	Food products	114	14,667	4,458	323
Ascendas Real Estate Investment Trust	Singapore	Real estate investment trusts	383	5,848	4,317	30
SIA Engineering	Singapore	Transportation infrastructure	211	1,357	4,291	44
Comfortdelgro Corp	Singapore	Road and rail	224	3,949	4,199	623

Appendix 4.2 Destination of ASEAN-4 outward FDI by host country

	Malaysia	Singapore	Thailand	Indonesia
United Arab Emirates	2.47%	0.71%	1.88%	
Antigua and Barbuda	0.05%			
Albania	0.05%			
Angola		0.02%		
Argentina		0.02%		
Austria	0.22%	0.53%	0.63%	0.58%
Australia	27.81%	30.17%	12.76%	38.15%
Bosnia and Herzegovina	0.22%			
Bangladesh	0.38%	0.06%	1.05%	
Belgium	0.16%	0.19%	0.84%	
Bulgaria		0.06%		
Bahrain	0.43%	0.02%		
Bermuda	1.61%	0.75%	1.05%	
Brunei Darussalam	1.67%	0.11%	0.21%	
Bolivia		0.02%		
Brazil	0.27%	0.19%	0.84%	
Bahamas	0.05%	0.09%		
Botswana	0.05%			
Belize			0.21%	
Canada	0.43%	0.24%	0.63%	
Congo	0.11%			
Switzerland	0.48%	0.26%	0.42%	0.58%
Chile	0.11%	0.04%		
Cameroon	0.05%	0.02%		
China	7.91%	9.36%	10.67%	2.89%
Colombia	0.11%	0.02%	0.21%	
Curacao	0.22%	0.02%		
Cyprus	0.43%	0.60%	0.21%	
Czech Republic	0.11%	0.21%	0.21%	
Germany	1.99%	3.10%	5.86%	5.20%
Denmark	0.65%	0.38%	0.63%	
Algeria		0.02%		0.58%
Ecuador		0.04%		

Estonia		0.11%		
Egypt	0.11%			
Spain	0.27%	0.32%		1.73%
Ethiopia	0.00%	0.02%		
Finland	0.05%	0.04%		
Fiji	0.05%	0.02%		
France	0.38%	0.75%	1.46%	1.16%
Gabon		0.02%		
United Kingdom	7.91%	4.66%	7.95%	3.47%
Ghana	0.16%	0.04%		
Guinea		0.02%		
Greece		0.02%		
Hong Kong	6.94%	2.33%	6.07%	4.62%
Croatia			0.21%	
Hungary		0.04%	0.00%	
Indonesia	10.65%	5.19%	3.77%	
Ireland	0.05%	0.32%		
Israel		0.09%		
India	1.78%	5.79%	3.56%	2.31%
Iraq		0.02%		
Iceland		0.04%		
Italy	0.16%	0.70%	0.84%	0.58%
Jordan	0.05%			
Japan	0.38%	1.22%	1.05%	1.16%
Cambodia	1.34%	0.19%	2.72%	0.58%
Korea, Republic of	0.38%	0.81%	0.21%	
Cayman Islands	1.29%	0.73%	0.42%	
Kazakhstan	0.05%	0.04%		
Lao People's Democratic Republic	0.05%	0.13%	3.77%	
Lebanon		0.02%		
Sri Lanka	0.27%	0.19%		0.58%
Liberia	0.05%	0.02%		
Lithuania		0.02%	0.21%	
Luxembourg	0.16%	0.34%	0.21%	0.58%
Latvia	0.11%	0.30%		

Libya	0.05%	0.00%		
Morocco		0.04%		
Moldova, Republic of		0.02%		
Marshall Islands	0.22%	0.04%		
Myanmar	0.27%	0.39%	2.51%	
Mongolia		0.15%		
Macao	0.11%			
Malta	0.05%	0.02%		
Mauritius	0.91%	0.26%	1.26%	1.16%
Malawi	0.16%	0.02%		
Maldives		0.06%	0.42%	
Mexico	0.27%	0.15%		
Malaysia		7.18%	6.90%	3.47%
Nigeria		0.06%		
Netherlands	0.81%	2.76%	1.88%	4.05%
Norway	0.05%	0.38%	0.21%	
Nepal	0.05%	0.04%		
New Zealand	0.43%	1.26%	0.42%	0.58%
Oman		0.04%		
Panama	0.05%	0.04%		0.58%
Peru		0.02%		
Papua New Guinea	0.11%	0.08%		
Philippines	0.59%	0.56%	1.67%	
Pakistan	0.05%	0.04%		0.58%
Poland	0.54%	0.24%	0.21%	
Portugal	0.05%	0.19%	0.21%	
Paraguay		0.02%		
Qatar	0.05%	0.04%		
Romania	0.38%	0.38%	0.42%	0.58%
Russian Federation	1.02%	3.08%	1.05%	0.58%
Saudi Arabia	0.16%	0.09%		
Seychelles		0.11%		1.16%
Sweden	0.22%	0.24%	0.21%	
Singapore	4.68%		4.81%	13.87%
Slovenia		0.02%		

Slovakia	0.11%	0.02%		
Thailand	3.71%	4.81%		5.20%
Tunisia		0.02%		
Turkey	0.27%	0.17%	0.21%	
Taiwan, Province of China	0.43%	0.51%		0.58%
United Republic of Tanzania		0.02%		
Ukraine	0.05%	0.06%		
United States	0.91%	1.47%	1.88%	1.16%
Uzbekistan		0.02%		
British Virgin Islands	0.86%	1.05%	0.63%	1.16%
Viet Nam	1.18%	1.88%	4.39%	
Samoa	0.05%	0.09%		
South Africa	0.38%	0.09%		0.58%
Zambia	0.05%	0.04%		
Zimbabwe		0.02%		
	100.00%	100.00%	100.00%	100.00%

[15]*Appendix 4.3: Random Effects Regression (with lags)*

Dependent Variable: FDI

	MALAYSIA				**SINGAPORE**				**THAILAND**				**INDONESIA**			
	Developed countries		**Emerging Countries**		**Developed countries**		**Emerging Countries**		**Developed countries**		**Emerging Countries**		**Developed countries**		**Emerging Countries**	
	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic
F25	3.60	1.03	0.00	1.29	0.00	-1.18	-4.05	-0.71	0.00	-1.48	***6.48	3.19	0.00	-0.57	1.51	1.62
F10	0.00	-1.25	0.00	1.24	-7.34	-1.07	**0	-2.12	*0.00	-1.87	-6.60	-0.19	n.a	n.a	7.17	0.13
lINTAN	0.00	-0.71	0.00	-1.56	-1.27	-0.23	0.00	-1.13	0.00	-1.57	0.00	-0.72	0.00	-0.16	-2.92	-0.92
lSALES	-1.30	-1.12	**-1.11	-2.25	**-3.32	-2.08	2.59	0.10	***-2.18	-3.27	7.06	0.23	-1.75	-1.12	-1.99	-0.89
lCASH	4.43	1.10	-6.50	-0.25	-9.47	-1.06	**-1.43	-2.43	1.25	1.33	-1.28	-1.54	-6.14	-0.57	9.24	0.90
lPROFIT	0.00	-1.33	***0	7.00	-7.00	-1.26	-5.16	-1.49	2.03	0.48	-1.21	-0.56	0.00	0.62	5.56	1.06
lTDTA	-3.49	-1.23	***1.38	4.93	4.74	1.24	1.05	1.36	6.84	0.99	-5.92	-0.15	**0	2.33	-7.63	-0.80
lCROA	0.00	1.32	***0	-5.51	2.96	1.41	5.04	1.43	***-5.45	-3.52	7.00	1.58	0.00	0.53	-8.18	-0.89
Constant	0.00	1.16	-6.39	-0.65	0.00	1.68	***0.00	2.59	**0.00	2.44	1.30	0.34	0.00	-1.36	n.a	n.a
R-Sq within	0.00		0.83		0.00		0.04		0.06		0.01		0.11		0.00	
R-Sq between	0.03		0.21		0.03		0.00		0.33		0.03		0.69		0.02	

[15] [15] Note: Standard errors in parenthesis. ***, **, and * indicate that the coefficient is significantly different from zero at the 1%, 5% and 10% respectively. The models are estimated with the correction of heteroscedasticity and autocorrelation. All variables are lagged by one year.

R-Sq overall	0.01	0.59	0.03	0.01	0.13	0.02	0.54	0.02
Sigma_u	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.94
Sigma_e	0.00	0.00	0.00	0.00	0.00	7.25	6.75	2.38
Rho	0.00	0.71	0.62	0.42	0.00	0.81	0.00	0.86
Observations	893	2496	1829	1302	380	964	61	140

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