THE DETERMINANTS OF CROSS-BORDER MERGERS
IN FOUR SELECTED ASEAN COUNTRIES

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THE DETERMINANTS OF CROSS-BORDER MERGERS IN FOUR SELECTED ASEAN COUNTRIES

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ABSTRACT

One organization purchases a second organization and acquiring ownership rights over its assets, business lines, operations, stocks and products. Therefore, they need one act to secure what they purchase which is will call its merger and acquisitions (M&As). In this particular matter, our study attempts to investigate the role of financial development on cross-border M&As in 4 ASEAN countries, namely Indonesia, Malaysia, Singapore and Thailand. Based on period of thirteen years (2000-2012), the data were analyzed by using the panel data econometric technique; fixed-effects and random-effects models. The results of the study indicate that a number of variables such as GDP, trade costs, financial development indicators such as stock which is the market capitalization of equity market, the amount of money in circulation (M2), and the real exchange rate (RER) are significantly influential in determining cross-border M&As from the whole of selected ASEAN countries. The findings of the study reveal the importance of domestic financial markets in stimulating cross-border M&As. These results also indicate that policy makers should pay more attention to promote cross-border M&As in term of policies and emphasize towards a stable exchange rate and trade cost.

Keywords: merger and acquisitions (M&As), ASEAN, GDP, money in circulation (M2), real exchange rate (RER)

ABSTRAK

Sebuah organisasi membeli sebuah organisasi yang lain dan hak pemilikan ke atas aset, barisan perniagaan, operasi, saham dan produk. Oleh itu, mereka memerlukan suatu perundangan untuk menjamin apa yang mereka beli di mana ini dikenali sebagai penggabungan dan pengambilalihan (M&As). Dalam perkara tertentu, kajian kami cuba untuk menyiasat peranan pembangunan kewangan merentas sempadan M&As dalam 4 buah negara ASEAN iaitu Indonesia, Malaysia, Singapura dan Thailand. Berdasarkan tempoh tiga belas tahun (2000-2012), data dianalisis dengan menggunakan teknik ekonometrik data panel; model kesan-tetap dan kesan-rawak. Hasil kajian menunjukkan bahawa beberapa pembolehubah seperti KDNK, kos perdagangan, petunjuk pembangunan kewangan seperti saham yang permodalan pasaran daripada pasaran ekuiti, jumlah wang dalam edaran (M2), dan kadar pertukaran benar (RER) adalah ketara berpengaruh dalam menentukan sempadan M&As dari semua negara-negara ASEAN yang dipilih. Hasil kajian yang mendedahkan kepentingan pasaran kewangan domestik dalam merangsang merentas sempadan M & A. Keputusan ini juga menunjukkan bahawa pembuat dasar perlu memberi perhatian yang lebih dengan menggalakkan rentas sempadan M&As dari segi dasar dan memberi penekanan terhadap kadar pertukaran dan perdagangan kos yang stabil.

Keywords: penggabungan dan pengambilalihan (M&As), ASEAN, KDNK, wang dalam edaran (M2), kadar pertukaran benar (RER)

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LIST OF ABBREVIATION

M&As	=	Mergers and Acquisitions
FDI	=	Foreign Direct Investment
LDCs	=	Least Developed Countries
ASEAN	=	Association of Southeast Asian Nations
GDP	=	Gross Domestic Product
M2	=	Money Supply
TNCc	=	Transnational corporation
WIPS	=	World Investment Prospects Survey
OLI	=	Ownership-location-internalization

CHAPTER ONE

INTRODUCTION

This chapter outlines the introduction of the thesis. The rationale of the study is presented in the form of problem statement, research hypotheses, research objectives as well as the importance and scope of the study. The chapter closes with the research organization.

1.1 Background of the Study

Straub (2007) stated that Merger and Acquisitions (M&As) is a growing entity in a given industry meant to develop quickly instead of making another business aspect and entity of corporate finance, strategy and management handling through buying and selling, and the emergence of another company that can finance, help or aid it. It involves selection process of a targeted company in making an investment. Brealey et al. (2007) stated that the common rule in M&As is a company should move forward with the acquisition if by doing so it generates a net addition to shareholders' wealth after the getting the company.

In M&As, an organisation that is acquiring or purchasing a second organization, will acquire ownership right over its assets, operations, business lines, stocks and products. M&As also will alter the ownership of the targeted firm and may transform its financial goal, social mandate and regional focus (Angeli & Maarse, 2012).

When two companies amalgamated and form a new company, merger occurs and led to a lawful rapture in one of the companies. The two companies now agreed to move forward as a unit through combination of assets instead of separately operated and owned (Straub, 2007; Bragg, 2007; Grinblatt et al., 2006 and Ahern and Weston, 2007).

After the acquisition, the acquirer administered it persistently according to the acquirer's choices and needs (Straub, 2007; Grinblatt et al., 2006; Bragg, 2007). Bragg (2007) stated that in acquisition, both companies are left standing as separate entities at the end of the transaction. However, Straub (2007) and Grinblatt et al. (2006) stated that the two companies can be united into a single entity without having to be separated after that transaction. Despite the contradiction between Grinblatt et al (2006) and Straub (2007) regarding the company's position at the end of the transaction, they agree that when a company takes over another company and clearly establishes itself as the new owner, it is an acquisition.

In developing economies like Malaysia, economic development and growth of Foreign Direct Investment (FDI) play a very important role globally. The chaos in the global economy in 2011 caused a pre-crisis average of one and a half trillion USD, which was 23 percent lower compared to 2007 peak. UNCTAD predicted a slower FDI growth in 2012 which levelled at 1.6 trillion USD with 0.1 trillion USD higher. Leading snapshots, M&As and Greenfield investments' value, were pulled back in the first five months of 2012 but fundamentals such as cash holding and high earnings support modest growths. With global FDI amounted approximately 1.9 trillion USD in 2014 compared to 1.8 trillion USD in 2013, long-run bludge showed very modest but stable increase with barring any macroeconomic shocks (UNCTAD, 2012).

The overall boom and hence crash in FDI amid the 1990s matched with tragic decline in policy-induced and as well as in technical obstruction to trade. We perceived that the lower exchange expenses would results in a replacement away from foreign direct investment towards export. FDI is based on the trade-off between proximity and concentration, and decreases in trade expenses should discourage FDI. However, the gains of concentrated production increasingly balance the advantages from enhanced market access (Yeaple, 2003; Carr, Markusen & Maskus, 2001). Also, both exports and FDI decline with distance and hence, its influence at the percentage of FDI and is responsive to stipulation used but the effects of the distance are less favourable to the hypothesis. So, with the costs of communicating with foreign auxiliaries, separation may be proxying for determinants other than exchange costs.

There are two different kinds of measures of trade restriction in order to account for the shocks of trade restrictions in cross-border M&As. The first is the effect of trade policy on cross-border M&A via its influence on trade expenses while the second is a factor commonly used in gravity models of investment and trade, i.e. the distance between two countries. However, despite an increasingly globalized world, the use of trade expenses in deciding world trades of goods and capital is away from negligible. Hence, the effect of trade expenses on international merger activity is from a valuable data and academic level of view for policy makers.

1.2 Issues of the Study

Approaching top the level of world foreign direct investment flows during the financial and economic chaos it requires to the dynamism of economic with key and effective role of these economies in future foreign direct investment flows that they maintained this share as developed countries' economies revived in 2011. FDI flows to developed economies grew strongly, from 21 % in2010 to $748 billion in 2011 which was almost a quarter below the level of the three-year pre-crisis average. However, with the inflows touching a new record (777 billion USD with 12 % rise) transition in developing economies as a whole continued to account for more than half of global FDI, which is 6% and 45%, respectively, as depicted in Table 1.1 (UNCTAD, 2012).

Table 1.1:
FDI (Billion USD and %) flows by region, 2009-2011

Region	FDI Inflow			FDI Outflow		
	2009	2010	2011	2009	2010	2011
World	1197.8	1309.0	1524.4	1175.1	1451.4	1694.4
Developed economies	606.2	618.6	747.9	857.8	989.6	1237.5
Developing economies	519.2	616.7	684.4	268.5	400.1	383.8
Africa	52.6	43.1	42.7	3.2	7.0	3.5
East and South-East Asia	206.6	294.1	335.5	176.6	243.0	239.9
South Asia	42.4	31.7	38.9	16.4	13.6	15.2
West Asia	66.3	58.2	48.7	17.9	16.4	25.4
Latin American and the Caribbean	149.4	187.4	217.0	54.3	119.9	99.7
Transition economies	72.4	73.8	92.2	48.8	61.6	73.1
Memorandum %age share in word FDI flows						
Developed economies	50.6	47.3	49.1	73.0	68.2	73.0
Developing economies	43.3	47.1	44.9	22.8	27.6	22.6
Africa	4.4	3.3	2.8	0.3	0.5	0.2
East and South-East Asia	17.2	22.5	22.0	15.0	16.7	14.2
South Asia	3.5	2.4	2.6	1.4	0.9	0.9
West Asia	5.5	4.4	3.2	1.5	1.1	1.5
Latin American and the Caribbean	12.5	14.3	14.2	4.6	8.3	5.9
Transition economies	6.0	5.6	6.0	4.2	4.2	4.3

Source: UNCTAD, Word Investment Report 2012

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With flows to LDCs (least developed countries) reviving from 11% to 15 billion USD, the poorest economies remained during FDI recession. For example, for third consecutive years with marginal decline, the FDI to Africa showed a downward trend. Flows to the transition economies, in contrast, rose to $92 billion with 25 percent increased. Increase in FDI to developing economies was driven by the 16% increase in the Caribbean and Latin America and the 10% increase in Asia. It suggested that transition economies and development will continue to maintain with the growth pace of world's FDI in the medium term. Among their top ten anticipated goals for the period ending in 2014, Transnational corporation (TNCs) administrators responded that 2012 as the year where the UNCTAD's World Investment Prospects Survey (WIPS) ranked 6 transitions economies and developing. As a result, for the first time Indonesia raised two places to become the top five destinations (Figure 1.1).
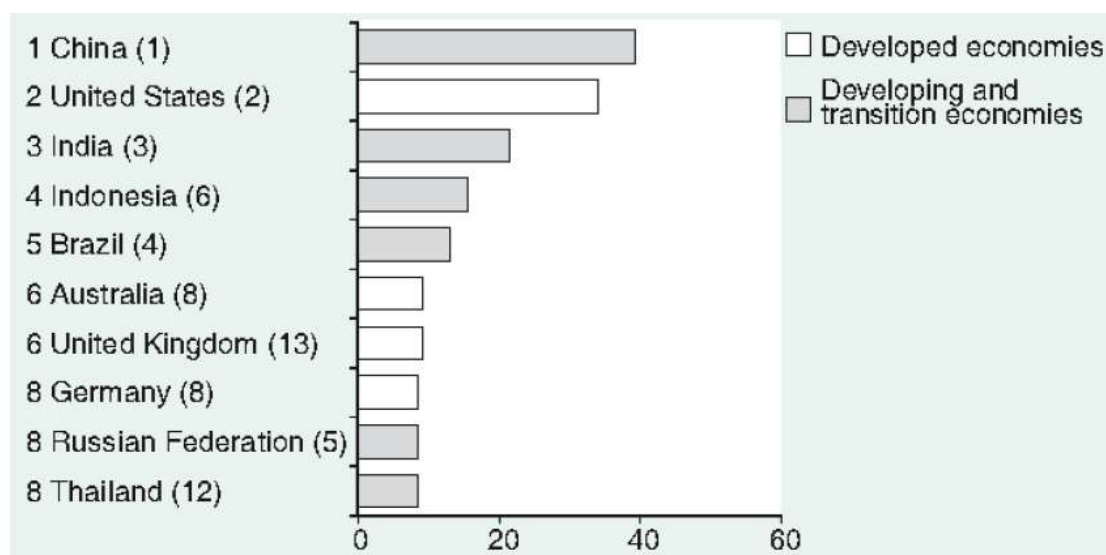
Source: UNCTAD, *World Investment Report 2012*
Figure 1.1: Top Eight TNCs' prospective host economies for 2012-2014

Table 1.2 showed that the growth of FDI inflows in 2012 remained moderate for all three countries, i.e. for transition, developing and developed economies. Foreign direct investment flows to transition countries' economies were anticipated to increase further in 2012 and would recover back in 2014 as the 2007 peak. Growth in FDI was expected to be moderate in South Asia, West Asia, East and South-East Asia and Latin America. In developing countries, Africa's inflows were expected to retreat.

Table 1.2:
Summary of medium-term baseline sceneries of FDI (Billions USD) flows with projection through econometrics results, by region.

	Averages					Projections		
Host Region	2005-2007	2009-2011	2009	2010	2011	2012	2013	2014
Global FDI flows	**1473**	**1344**	**1198**	**1309**	**1524**	**1495-1695**	**1630-1925**	**1700-2110**
Developed countries	**972**	**658**	**606**	**619**	**748**	**735-825**	**810-940**	**840-1020**
European Union	646	365	357	318	421	410-450	430-510	440-550
North America	253	218	165	221	268	255-285	280-310	290-340
Developing countries	**443**	**607**	**519**	**617**	**684**	**670-760**	**720-855**	**755-930**
Africa	40	46	53	43	43	55-65	70-85	75-100
Latin America and the Caribbean	116	185	149	187	217	195-225	215-265	200-250
Asia	286	374	315	384	423	420-470	440-520	460-570
Transition economies	**59**	**79**	**72**	**74**	**92**	**90-110**	**100-130**	**110-150**

Source: UNCTAD, *World Investment Report 2012*

Flows from Caribbean and Latin America fell 17%. This was largely due to the restoration of regional capital which is considered as negative outflows. This was motivated partly by financial applications such as interest rate and exchange rates differences. In developing economies on other hand, with total global outflows share at

23 percent, outflows from developing countries reduced by 4% to $384 billion in 2011. However, outward FDI from South-East and East Asia were static while from West Asia it grew substantially to $25 billion despite the 9 percent decrease in those from East Asia.

With total 22 percent of global inflows, foreign direct investment in the developing countries of South-East and East Asia achieved new records with total inflows of 336 billion USD. However, ASEAN[1] economies saw a considerable increased. South-East Asia experienced a faster FDI growth with inflows of $117 billion, i.e. up by 26%. It is faster than that of East Asia. But the East Asia was still prevalent at $219 billion, up by 9%.

There was no doubt that the rankings of South-East Asian economies such as Thailand and Indonesia have risen significantly. However, according to UNCTAD's and WIPS, China continued to be at the top spot and attractive for FDI due to investors' preferred destination. Inflows to China achieved a new level of $124 billion, and for first time FDI flows to the services sector exceeded those to manufacturing. Even when ASEAN countries' relative competitiveness in manufacturing is enhancing, China continues to experience rising production costs and wages.

Outward FDI from China declined by 5 percent, while those from Hong Kong dropped by 15 percent. Outward FDI from East Asia was reduced by 9 percent to 180 billion USD, while those from South-East Asia increased by 36 percent to 60 billion USD. But

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[1] Brunei Darussalam, Indonesia, Malaysia and Singapore

Singapore registered a 19 percent increase and in Indonesia and Thailand it was flying up.

Economic policy is closely interlinked with trade costs. There are two kinds of policies regarding this; direct policy instruments, such as trade restrictions linked with system of exchange-rate, tariffs, the tariff equivalents of quotas; and other policies such as law enforcement as well as related property right institutions, language, regulations, transport infrastructure investment, and informational institutions. However, the former is less important than the later. Trade costs' details also have great deal to economic geography implications. For example, Davis (1998) found that the home market affect hypothesis (due to economies of scale and hence, reducing the cost for big countries in producing more of goods) holds on differentiated goods and service with economics of scale having larger trade expenses than homogeneous goods and services. Despite of welfare matters to economic geography implications, trade costs also have greater welfare policy connotations as well as implications. Obstfeld and Rogoff (2000) argued that all important complications of international macroeconomics hang on trade costs. However, Anderson and Wincoop (2002) stated that recent policy-related expenses are often worth greater than ten percent of GDP. But Anderson (1994) stated that the cross-commodity framework of policy restrictions is very crucial to welfare.

The result of the above discussion indicates that trade cost is comprehensively defined as "all costs incurred in getting a good to a final user or destination other than the marginal cost of producing the good itself". These costs, calculated as their ad-valorem tax equivalent, include information costs, which is the costs that are linked with the use of currency differences, policy restrictions (tariffs and nontariff restrictions), local

distribution costs (retail and wholesale), contract implementation costs, regulatory and legal costs, and transportation costs (time and freight costs). The 170% headline number breaks down into 55% local distribution costs and 74% international trade costs.

Table 1.3:
Value (Millions USD) of cross-border M&As by selected Asian countries of purchaser, 1990-2013

Country	1990-1993	1994-1997	1998-2001	2002-2005	2006-2009	2010-2013
China	859	1010	362	2424	18262	38940
Hong Kong, China	1082	1595	13716	6893	1096	14060
Korea, Republic of	78	1504	- 320	101	5326	6011
Taiwan Province of China	386	140	675	333	301	497
Indonesia	48	380	-123	144	-287	961
Malaysia	158	1606	450	2465	5075	4416
Singapore	418	1136	6798	4981	9734	6017
Thailand	- 28	104	107	-17	587	7491
India	46	65	623	1039	12202	9 472
Bahrain	503	124	- 797	56	2047	-1377
Kuwait	83	- 302	- 359	1348	2120	-2020
Saudi Arabia	420	633	585	2297	5764	655
United Arab Emirates	11	135	348	2037	17038	1821

Table 1.4 shows that the depth of equity market in Bangladesh, Indonesia, Mongolia, Pakistan and Vietnam are still lagged behind the others neighbouring countries, even though equity has increased and became an important source of funds in selected Asian countries. While banking sector plays a key role in selected Asian countries, where we can see that the share of sum of credit provided by banks and others institutions relative to GDP exceeding 50% except for Indonesia, Mongolia and Pakistan. In term of the growth of money supply, measured by M2 to GDP, only Indonesia and Mongolia were

left behind other selected Asian countries with the amount of 38.8% and 38%, respectively.

Table 1.4:
Selected Asian Countries' Financial Development Indicators (Percent of GDP)

Country	credit[2]			equity[3]			M2[4]		
	2005	2009	2011	2005	2009	2011	2005	2009	2011
Bangladesh	54.9	60.38	70.45	5.04	7.91	21.04	5433	62.86	68.67
China	134.30	145.08	145.57	34.59	100.33	46.33	153.03	179.00	180.19
India	58.36	70.15	74.14	66.30	86.37	54.22	64.6	77.7	76.7
Indonesia	46.2	36.9	38.6	28.5	33.0	46.1	43.4	38.2	38.8
Japan	315.4	326.8	337.5	103.6	67.1	60.0	206.6	227.0	238.4
Malaysia	117.7	131.1	128.7	126.3	126.6	137.2	124.9	139.2	138.6
Mongolia	26.7	29.8	40.4	1.8	9.4	18.0	37.5	43.7	57.8
Pakistan	46.5	48.4	43.3	41.9	20.5	15.6	49.2	41.8	38.0
Philippines	47.3	48.7	51.9	38.9	47.6	73.8	54.3	62.1	59.9
Singapore	62.1	88.1	91.6	256.4	160.1	125.8	105.3	135.2	132.7
South Korea	133.4	170.2	165.3	85.0	100.3	89.2	118.1	147.1	141.8
Thailand	119.2	137.0	159.1	70.8	52.4	77.7	111.4	116.9	128.2
Vietnam	71.2	123.0	120.8	0.9	21.8	14.8	77.3	115.2	109.4

Sources: Wold Bank Indicators, 2012.

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[2] Credit is calculated by the sum of credit given by banks and other financial institutions relatives to GDP
[3] equity is proxy by stock market capitalization relative to GDP
[4] M2 is proxy by money supply relative to GDP

1.3 Statement of the Problem

It has been a custom in worldwide financial matters of examining the factors of aggregate FDI stocks and flows (Santis et al., 2004; Keller and Levinsohn, 2002; Barrell and Pain, 1996). This literature does not recognize between Greenfield investment and mergers. Nocke and Yeaple (2004) pointed out that blending these two sorts of FDI may stow away essential heterogeneities in their factors and determinants. This has motivated economists and institutions to conduct researches on FDI patterns as well as policy makers who concerned with the determinants of FDI, especially with those that can be stated through policy measures.

There are a number of studies, such as Globerman and Shapiro (2004), Rossi and Volpin (2004), Kamaly (2007) and Giovanni (2005) that concentrate on the macroeconomic determinants of the total FDI. However, few of them have obviously shed lights on the determinants of FDI through M&As. Neto *et al.* (2010) pointed out that the past literature has uncovered that the greater part of the studies on the determinants of M&As utilized a microeconomic viewpoint, attempting to comprehend the organizations' strategic decision on their foreign market entry. Earlier studies analyzing the patterns of M&As have focused on the host country macroeconomic impacts with generally little consideration on home country (Uddin and Boateng, 2011).

The available confirmation in this expanse of research has not to a great extent missed the association between financial development on cross-border M&As and rather cantered around the impacts of financial development on economic development and

growth. In the past studies, few, if any, research has concentrated on this system or mechanism of transmission. This problem is essential since theory does not give definitive forecasts on the association between investments and financial growth or development. In the finance-investment literature, Gregorio and Guidotti (1995) contended that one research gap or area of controversy concerned was on the channel of transmission framework for financial development to growth. However, a few studies have supported Shaw (1973) and McKinnon (1973) suggestions, that recognized a positive or direct relationship from financial deepening to investment; while others inferred that there is no remarkable relationship between investment and financial development. Furthermore, the majority of the studies in this area concentrate on high-paid income countries instead of developing economies.

Kamaly (2007) studied the determinants and patterns of M&As in developing economies in 1990s and found that higher levels of stock market activities in developing countries diminished the amount of M&As directed to them. Only the proxy for banking sector development showed no statistical significance in their ideas. These solutions are opposed to the theoretical and expectation predictions.

1.4 Research Questions

i.   How will the financial development affect the cross-border M&As in selected Asian countries?

ii.   Are there any macroeconomic factors that will affect the cross-border M&As in selected Asian countries?

iii. Is there any trade effect cost on cross-border M&As in selected Asian economies?

1.5 Objectives

The general objective of this study is to examine the relationship between the main determinants and cross-border mergers in selected Asian economies. To achieve the general objective, specific objectives are given as follow:

1. To delineate the relationship between financial development and cross-border M&As in selected Asian economies.

2. To examine the impact of trade cost on the cross-border M&As in selected Asian economies.

3. To investigate the relationship between macroeconomic factors and cross-border M&As in selected Asian economies.

1.6 Significance of the Study

Generally, the findings of this study will contribute to the scholarly debate and literature on the effect of financial development, macroeconomic factors, trade cost on cross-border M&As in selected Asian economies. A better understanding or information on how the cross-border M&As activity could be stimulated by the financial development from the four selected ASEAN economies namely Indonesia, Malaysia, Singapore and Thailand. This study will help the policy maker and regulatory authorities in determining the future action plan in strengthening the cross-border M&As as well as the financial development of these economies. The last point of view is for the author's knowledge; there is very limited publication works on the determinants of outward cross-border M&As in ASEAN countries.

1.7 Scope of the Study

Generally, this study examines the relationship of financial development, macroeconomic factors, trade cost on cross-border M&As in four selected ASEAN economies. Hence, this study used a panel data analysis based on the sample of 20 years periods (1993-2013). The dependent variable in this study is the value of bilateral M&As between host and home economies.

The independent variables that reflect financial development that we used in this study are market capitalization in the home economies, credit given by the banking sector and other financial sectors and institutions as well as money supply (M2). Also to analyze the macroeconomic factors on the cross-border M&As, we used Gross Domestic Product (GDP), bilateral trade intensity, exchange rate, and inflation rate for host and home economies. We also analyse trade cost on the cross-border M&As.

1.8 Organization of the Study

The proposed study is outlined into five chapters. The introduction is presented in chapter one while chapter two will present the literature review. In chapter three, the explanation of data and methodology are presented. Chapter four reports the analysis and the findings. Finally, chapter five concludes the summary of the study and policy recommendations.
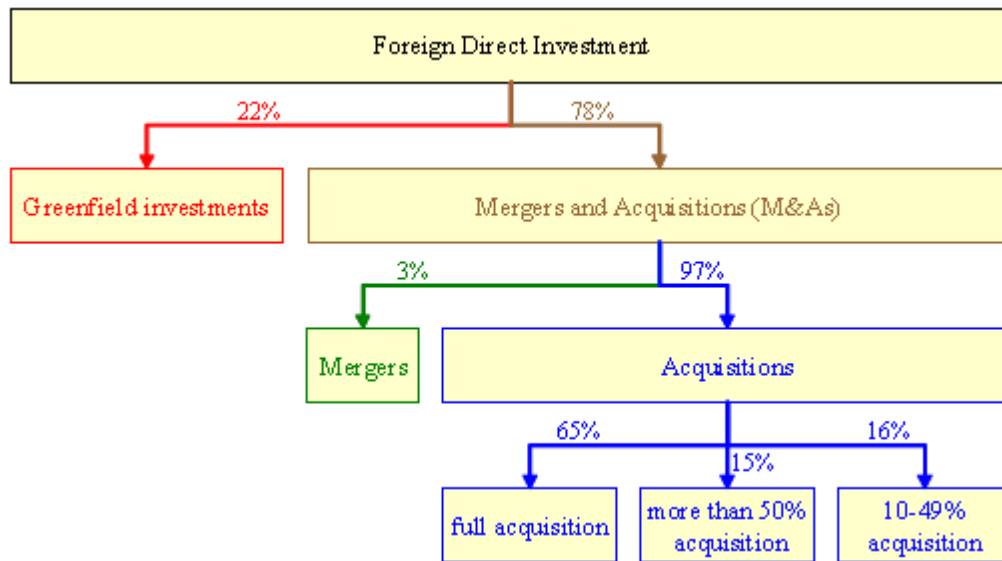
CHAPTER TWO

LITERATURE REVIEW

This chapter will focus on the theoretical and empirical review on gravity theory, which provides different framework for analysing the various links between financial developments, economic and non-economic factors with cross-border mergers in selected ASEAN countries.

2.1 Theoretical Review

FDI plays a key role in development of countries, not only in developing countries but also in developed countries. Countries are competing with each other in order to offer attractive incentive plans to attract FDI. There are three kinds of FDI; Greenfield Investment, Cross-border Mergers and Acquisition (M&As), and Joint Venture. FDI may take one of these three forms. Greenfield investment occurs when the investing firm establishes a new production, distribution or other facilities in the host country. This is normally welcomed by the host country because of the value-added output and job creating potential. The second type of FDI involves an acquisition or a merger with an established firm in the host country; the majority of M&As are indeed acquisitions compared to merger. This mode of FDI has two advantages compared to Greenfield investment. First, it is cheaper, particularly if the acquired project is a loss-making operation that can be purchased at low price. Second, it allows investor to get a quick access to the market (Brakman et al., 2008; Anhern and Weston, 2007; Halpern, 1983).

Brakman et al. (2008) indicated that foreign direct investment in a broader view conceals the fact that major FDI is in the form of cross-border M&As. As demonstrated in Figure 2.1, the components of FDI have clearly shown that M&As consist the major parts of FDI, while M&As is considered to be more essential than that of Greenfield FDI. The principle distinction between these two as indicated by UNCTAD (2000) is that in M&A, control of assets and operations is transferred from a local to a foreign company, where the former is becoming an affiliate of the latter. However, models in international economics have started to arise, which help us to understand M&As in recent phenomenon. Hence, Neary's (2007) model took the standard partial equilibrium clarifications for M&As with the intentions to demonstrate and to explain it, i.e. *an efficiency motive* (cost reductions) *and a strategic motive* (reduce competition).

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┌─────────────────────────────────────────────────────────────────┐
│                    Foreign Direct Investment                     │
└─────────────────────────────────────────────────────────────────┘
         22%                              78%
    ┌──────────────────┐      ┌───────────────────────────────────┐
    │ Greenfield       │      │  Mergers and Acquisitions (M&As)  │
    │ investments      │      └───────────────────────────────────┘
    └──────────────────┘           3%            97%
                          ┌──────────┐   ┌──────────────────────────┐
                          │ Mergers  │   │      Acquisitions        │
                          └──────────┘   └──────────────────────────┘
                                   65%        15%           16%
                          ┌───────────┐ ┌───────────┐ ┌───────────┐
                          │ full      │ │ more than │ │ 10-49%    │
                          │ acquisition│ │ 50%      │ │ acquisition│
                          │           │ │ acquisition│ │          │
                          └───────────┘ └───────────┘ └───────────┘
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Source: Brakman et al. (2007); data: UNCTAD (2000)[5];

Figure 2.1: *Distribution of various forms of FDI*

Tekin Koru (2004) demonstrated it further by giving an explicit analysis where a foreign firm chooses between Greenfield investments or exporting, where M&As as the source of foreign market entry. Similar to the above model, the acquisition price is again analysed endogenously. She demonstrated theoretically that a raise in trade costs may make Greenfield investment or exporting less costly vis-à-vis M&As. By gathering firm's level data for Swedish, she also found that trade costs are inversely associated to the choice of M&As as compared to Greenfield investment or exporting.

There are few studies demonstrating the impacts of foreign direct investment in various host countries. Few are related to vertical while others to horizontal spills over impacts of FDI. However, the result of these studies contradicts. Some demonstrated direct or positive impacts (Baliamoune-Lutz, 2004; Barro & Sala-i-Martin, 1995; Barro, 1991

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[5] 78-22% apart in value terms, other percent in number of deals

and Lipsey, 2002), while other studies showed negative impacts of FDI on domestic firms (Aitken & Harrison, 1999). There is also a study that showed neutral impacts (Kokko et al., 1996).

The existence of spill over impacts by analysing the influence of foreign ownership on productivity in a local firm was studied by Caves (1974) and Blomström & Persson (1983). These are the past studies which related to the statistical analyses of FDI. Similar results were also drawn by Kolasa (2008), Driffield (2001), Liu et al. (2000), Chuang & Lin (1999), Blomström & Wolf (1994), and Nadiri (1991). They indicated that the effects are positive. While other authors such as Lin (2008), Perez (2008), Stephan (2005) Torlak (2004), Ikiara (2003), and Estrin et al. (1997) showed that foreign direct investment affect the development of the potential economy as well as creating a improve use of the local services and infrastructure activities, increase involvement of domestic companies in supplier and subcontractor frameworks, influence the development and growth of managerial skills and knowledge, support development strategies of individual sectors, create more tax revenue for the state, affect transfer of new knowledge and technologies, and decrease unemployment. Numerous studies have proved the adverse influences of foreign direct investment on economic growth of the host country (Kawai, 1994). However, Neuhaus (2006), Pain (2001) and Borensztein et al. (1995), stated that inflows were added greatly to economic growth in the host country, while Alfaro (2003) believed that it had a positive effect only if made in manufacturing sectors, but the findings showed that inflows of FDI in the primary sector tend to have an adverse effect on growth.

Regarding the motives and determinants of cross-border M&As, there are also recent theories available on which this is based on growth maximization theory, imperfect market theory, transaction cost theory, profit maximization theory, gravity theory, OLI (ownership-location-internalization) theory and others.

For example, cross-border M&As in OLI theory as a tool in strategy for expanding overseas is stated by Dunning (1993) and Wilson (1980). Here the motivation and objective of M&As is to gain from competitive advantage and to reduce the transaction costs for entering new markets. Dunning (1993) further emphasized that the way OLI advantages combine to create competitive advantage for firms varies across industries, states and areas. It is therefore crucial to identify the configuration of advantages that give a specific industry, country or region its competitive advantages in foreign owned production.

Regarding gravity theory such as a gravity-type framework to delineate M&As flows were presented by Brakman et al., 2008; Garita & van Marrewijk, 2008; Hijzen et al., 2008 and Di Giovani, 2005. A study by Hijzen et al. (2008) has adopted a gravity model to determine the role of trade costs in estimating M&As. Also regarding the gravity theory, Di Giovani (2005) tested the effect of financial markets' depth in the acquiring countries on M&As through two-stage Tobit analysis. These authors estimated the model through a negative binomial regression. Consequently, two recent papers have utilized the zero-inflated model as the one we are going to test in this study (Brakman et al. 2008; and Garita and van Marrewijk, 2008). Both papers analysed the factors of M&As flows.

The gravity model, which was first introduced by Tinbergen (1962), can be stated as the trade flow between two countries, A and B, using two masses, usually distance and GDP, where distance will have negative effects and GDP will have positive effect. Basically, this gravity model was developed for bilateral trade volumes, assuming that bilateral trade have a negative effect to the geographic distance of the two economies of home and host countries and have a positive effect on the GDP levels between them. GDP levels measure any potential supply from the source country and the potential demand for bilateral imports in the host country and the market size of the economy. Mileage also serves as a proxy for the transaction and transportation costs related to trade and depicts the hindrance(s) to the bilateral trade.

In application of the gravity model and hence, equation to analyse international trade flows, Poyhonen (1963) was also credited as one of the pioneers. His model predicted that bilateral trade level was a function of two key economic factors: trade resistance variables, including distance, and a dummy variable for common border; and trade enforcement variables, including a measure of GDP of both exporting and importing economies. Output of the importing country depicts the propensity to demand and the output of the exporting country shows the ability to supply. As a result, trade movements are expected to be directly related to the exporting and importing countries' output.

Anderson (1979) cited in Martinez-Zarzoso (2004) made the first formal effort to determine the gravity equation from that supposed product differentiation. Also Anderson and Martinez-Zarzoso, Bergstrand (1985; 1989) have explored the theoretical investigation of bilateral or dual trade in a series of papers in which gravity equations

were linked with simple monopolistic competition analyses. However, in contrast to monopolistic competition, Helpman and Krugman (1985) made a differentiated product framework with IRS (increasing returns to scale) and scale to justify the gravity model. Deardoff (1998) demonstrated that the gravity equation portrays numerous analyses and can be supported from standard trade theories. Hence, Anderson and Wincoop (2003) derived an operational gravity model through the manipulation of the constant elasticity substitution (CES) expenditure framework that can be effectively evaluated and may help to resolve the so-called fringe riddle. The distinctions in these theories help to clarify the different specifications and some diversity in the result of the practical applications.

2.2 Empirical Review

Giovanni (2005) in his studied using large panel data on M&As found that institutional factors and financial variables are key determinants of M&As flows. The results emphasized on financial market deepening in the acquisition countries as the main determinant of M&As. He also stated that the size of financial markets and the credit provided to the private sector enhanced domestic companies to invest overseas. However, on other hand, Brooks and Jongwanich (2011) studied on arising economies from Asia and came up with a conclusion that the banking sector plays a key role in effecting cross-border M&As compared to the bond and equity markets.

Agbloyor et al. (2012) also studied on the development of local banking sector and cross-border M&As but they only focused on the incoming merger in Africa. They found that GDP as the control variables have a substantial and positive effect on cross-

border M&As. While, the sign of private credit and bank credit are positive but not significant. But, trade, institutional qualities and financial openness have a significant effect on cross-border M&As.

Similarly, Qiu and Zhou (2006) and Bus and DeLong (2004), Shen and Lin (2011) on their studies on the determinants of cross-border M&As found that trade was significant before and after the Asian financial chaos. They used the non-linear ARDL model in their study.

Chousa, Vadlamannati, and Tamazian (2008) studied the association between quality of stock markets, financial development, and economic growth with cross-border M&As activities in 9 emerging economies. They found that stock market capitalization and market value traded will lead to the enhancement in cross-border M&As inflows. The credit markets also have a strong and positive significant effect on cross-border M&As.

Harford (2005) in his studied stated that the liquidity position of economy provide a positive and significant affect to the cross-border M&As. Resende (2008) confirmed the results of Harford (2005) and found that the role of liquidity as motivator is to encourage the M&As activities.

CHAPTER THREE

DATA AND METHODOLOGY

This section provides discussion on the sample of the data and methodology used in order to access the relationship between cross-border M&As and role of the financial development.

3.1 Samples and Data Description

In this study, the data of selected countries as in Table 3.1 were utilized in examining the role of financial development on cross-border M&As.

Table 3.1

List of Asian countries

Country	Number of host countries from each home country Cross-Border M&As
Indonesia	2
Malaysia	27
Singapore	29
Thailand	11

Source: Based on the United Nation's Criteria

Our analysis of cross-border M&As relied on Thomson's Global Mergers and Acquisitions database. This is considered as the most extensive and the best data source for M&As to now. This database compiles information on M&As for more than one

million USD. Its means of information were utilized by specialized agencies and financial newspapers like Reuter. As noted by Garita and Marrewijk (2008), there is typically nor or just a short while distinction between the date of declaration of M&As arrangement and the date the arrangement is effective. The balanced data were utilized in this study, which consist of dataset of bilateral M&As from selected sample, GDP, trade cost, financial development indicators such as stock which is the market capitalization of equity market, the amount of money in circulation (M2), and the real exchange rate (RER).

3.2 Sources of Data

The data obtained from Thomson cover 4 selected ASEAN economies from 1993 until 2013. This study also makes use of the M&As data set constructed from Thomson Financial SDC database. The database was also used by Giovanni (2005), Kamaly (2007) and Brooks and Jongwanich (2011).

3.3 The Specification Model

This part contains empirical analyses to investigate the relationship between financial development and macroeconomic factors among four ASEAN countries, and discusses the econometric methodology. Regarding the validation and application in international trade research, there are numerous studies that have tried to give a theoretical basis for the gravity model. Since its appearance as noted by Hadi et al., (2012), there have been many uses of the gravity model in analysing international trade flows. Thus, our analysis used the standard Gravity model with some modification to

measure the pattern and trend of M&As among the four members of the ASEAN countries.

The specification model for factors of cross-border merger and acquisitions (M&As) is as follows:

$$\ln MA_{ij} = \beta_0 + \beta_1 \ln GDP_{ij} + \beta_2 \ln TCost_i + \beta_3 \ln Stock_i + \beta_4 \ln M2_i + \beta_5 RER_{ij} + \varepsilon_i$$

(3.1)

where

MA_{ij} is the real cross-border mergers and acquisitions flow from home economy i to host economy j

GDP_{ij} is the real GDP per capita of home economy i to host economy j

$TCost_{ij}$ is the trade cost of home economy i to host economy j

$Stock_i$ is the market capitalization of equity market in the home economy i

$M2_i$ is the amount of money in circulation in the home economy i

RER_{ij} is the real exchange rate between source economies i and host economy j.

ε_i is the stochastic error term

3.4 Estimation Procedure

3.4.1 Fixed and Random Effects: The Fixed Effects Model in Concept

One way to practice this is to estimate a "fixed effects" model that gives Luxembourg and every other unit in our study its own intercept. The most intuitive way to do this would be by including a dummy variable for N-1 units. We still assume that the bet as pool across units, so in essence we have N parallel regression lines. Observations across time in each unit vary around a baseline level specifically for that unit. Note that any substantive explanatory variables that do not vary across time in each unit will be perfectly collinear with the fixed effects, and so we cannot include them in the model (or estimate their effects).

$$y_{it} = \alpha_i + \beta x_{it} + \varepsilon_{it} \tag{3.2}$$

We could just include dummy variables for all except for one of the units. If we have panel data, though, this sacrifices a lot of degrees of freedom. And with so many units and very few time periods, these intercepts may be picking up on a lot of random errors and thus be quite inconsistent. We're not going to learn much of substance from these "incidental" or "nuisance" parameters. So this frees us to estimate the effect of our substantive coefficients in a slightly different way that preserves the substantive story of fixed effects without costing us so many degrees of freedom. We converted our x and y for each observation into a deviation from the means in that unit. This sweeps out the unit effects because when you mean the deviated variables, you are no longer needed to include an intercept term. So the model regresses $y_{i,t} - \text{mean}(y_i)$ on $x_{i,t} - \text{mean}(x_i)$. This is often called as within estimator because it looks at how changes in the explanatory variables cause y to vary around a mean within the unit.

3.4.2 Fixed and Random Effects: The Random Effects Model in Concept

Instead of thinking at each unit as having its own systematic baseline, we think of each intercept as the result of a random deviation from some mean intercept. The intercept is drawn from distribution for each unit, and it is independent from the error for a particular observation. Instead of trying to estimate N parameters as in fixed effects, we just need to estimate parameters describing the distribution from which each unit's intercept is drawn. If we have a large N (panel data), we will be able to do this, and random effects will be more efficient than fixed effects. It has N more degrees of freedom, and it also uses information from the "between" estimator (which is average observations over a unit and regresses average y on average x to look at the differences across units). Another property is that you can still have explanatory variables that don't change over time for a unit. If there is a big T, then the differences between fixed effects and random effects will go away.

$$y_{it} = \mu + \alpha_i + \beta x_{it} + \varepsilon_{it} \tag{3.3}$$

3.5 Conclusion

This chapter laid out the details pertaining to the research approach. Basically, the study deployed methods of quantitative approach in data collection. The Gravity model which is the research model is also discussed in this chapter. Techniques for analysis of data and other measures were clearly outlined. In the next chapter, analysis of the data and research findings are discussed.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

This chapter concludes discussion on the relationship of the findings to the theoretical model as proposed in Chapter 3. This chapter contains the key findings for all different regression models used in the study. Possible explanations for the findings are discussed in each section, along with their implications and applications

4.1 Descriptive Analysis

A descriptive analysis was conducted to describe the overall situation of M&As outflows, financial determinants variables such as stock, credit and M2; and macroeconomics determinants variables such as trade cost, and real exchange rate. Table 4.1 reports the means, standard deviation, maximum and minimum values of the variables

Table 4.1
Descriptive statistics for the whole sample

Variables	Mean	Standard Deviation	Minimum	Maximum
$lnMA_s$	3.702	2.501	-9.215	10.426
$lnGDP$	8.505	1.461	5.975	10.523
$lnTcost$	11.982	2.893	6.751	20.356
$lnStock$	4.431	0.376	1.949	5.506
$lnCredit$	4.837	0.569	3.596	5.825
$lnM2$	4.733	0.375	3.457	5.765
$lnRER$	0.207	3.187	-8.756	9.836

Source: Author's Estimation
N=69

Table 4.1 shows that the mean of cross-border M&As for the selected countries during the period of study is 3.702. The minimum level of annual cross-border M&As is -9.215, while the maximum level is 10.246. The standard deviation value for the variable is 2.501, which means that there is quite a variation for the cross-border M&As for the selected period, i.e. from 1993 to 2013.

Descriptive statistics for the GDP in term of the mean is 8.505. The standard deviation is 1.461. The maximum and minimum levels are 10.523 and 5.975, respectively. Trade cost shows that the mean and standard deviation is 11.982 and 2.893, respectively. As for the financial indicators such as the stock, credit and M2, it shows that the mean are 4.431, 4.837, and 4.733, respectively. Standard deviations for the stock are 0.376, credit is 0.569, and M2 is 0.375. The maximum for these financial indicators are 1.949, 3.596, and 3.457, respectively. On the other hand, the minimum for these indicators are 5.506, 5.825, and 5.765.

Descriptive statistics for the other determinants of macroeconomic variables are real exchange rate and Foreign Domestics Investment. It shows that the mean for those variables are 0.207 and 4.483. Standard deviations are 3.187 and 0.663, respectively. The maximum and minimum values for these 2 variables are -8.756 and 2.926, and 9.836 and 5.428, respectively.

4.2 Estimation results of determinants of cross-border M&As

The estimation results for Equation (3.1) are presented in Table 4.2 to Table 4.5 including the four selected ASEAN economies namely Indonesia, Malaysia, Singapore, and Thailand. These tables present the cross-border M&As and the determinants among the ASEAN economies. Each table shows the results of the pooled model in the second column, while those of random effects and fixed effects models are in the third and fourth columns. The last column presents the OLS with hetero and serial correlation. The main problem of the pooled model is that it does not allow heterogeneity of countries. It does not estimate country specific effects and assumes that all countries are homogenous. It is a restricted model (Eita, 2008).

Fixed effects model introduces heterogeneity by estimating country specific effects. It is an unrestricted model as it allows the intercept and other parameters to vary across trading partners. Like the fixed effects, the random effects model also acknowledges heterogeneity in the cross-section. However, it differs from the fixed effects model in the sense that the effects are generated by a specific distribution. Although it assumes that there is heterogeneity in the cross-section, it does not model each effect explicitly. This prevents the loss of degrees of freedom which happens in fixed effects model. The Breush-Pagan LM Test test was performed and the null hypothesis of equality of the individual effects is rejected in favour of random effect specification.

The Hausman statistic is used to test the null hypothesis that the independent variables and individual effects are not correlated in order to distinguish between fixed effects

model and random effects model. Failure to reject the null hypothesis implies that the random effects model is preferred. If the null hypothesis is rejected, the fixed effects model is appropriate. The Hausman test statistic shows that the null hypothesis is rejected and this indicates that country specific effects are correlated with independent variables. This suggests that the fixed effects model is appropriate, and the random effects estimates are not consistent. Since the fixed effects model is the appropriate one, interpretation of the results will focus on the fixed effects model (Eita, 2008).

Table 4.2 to Table 4.7 presents the regression results for Malaysia, Indonesia, Thailand and Singapore. The Breausch & Pagan LM test and Hausman test showed that Random Effects (RE) model is more appropriate than Pooled OLS and Fixed Effects (FE). The results also show that there are no serial correlation and heteroskedasticity problems.

In Table 4.2, for Indonesia, the estimation results show that GDP variable ($lnGDP_{ij}$) is positively significant to cross-border M&As in random effect at 1 percent level. The estimation coefficient is 1.049, means that 1 percent increase in GDP will increase cross-border M&As by 1.049%. As for Malaysia, Table 4.3 shows that the coefficients' estimate the effect of GDP variable ($lnGDP_{ij}$) is statistically significant; the estimation of coefficient is 0.853 at 1 percent level. In percentage terms, increase by 1 percent in GDP will increase the cross-border M&As by 0.853 percent. While, for Singapore, Table 4.4 shows that coefficients' estimate the effect of GDP variable ($lnGDP_{ij}$) is statistically significant; the estimation of coefficient is 3.432 at 1 percent level. In percentage terms, increase by 1 percent in GDP will increase the cross-border M&As by 3.432 percent. Table 4.5 for Thailand shows that that coefficients' estimate the effect of GDP variable ($lnGDP_{ij}$) is highly statistically significant; the estimation of

coefficient is 0.609 at 5 percent level. In percentage terms, increase by 1 percent in GDP will increase the cross-border M&As by 0.609 percent. From the above results we found that Singapore has better coefficient compared to Indonesia, Malaysia and Thailand. The results of GDP as a determinant is in line to the prediction, which is GDP will influence outward cross-border M&As from ASEAN.

The effect of trade costs on cross-border M & A is given by the coefficient on random effect in Table 4.2 to Table 4.5 for Malaysia, Indonesia, Thailand and Singapore. The coefficient of trade cost for Indonesia is -1.751 which is statistically significant at 5% level. While, the coefficient of trade cost for Malaysia and Singapore are -1.659 and -1.067; significant at 1% and 5% level, respectively. On the other hand the coefficient of trade cost for Thailand is insignificant. Thus, the impact of trade costs for Indonesia, Malaysia and Singapore economies on cross-border M & A is negative. Our findings is in line with other previous work that showed a negative effect of trade costs on cross-border M&As; (Carr et al., 2001; Portes and Rey, 2005; Di Giovanni, 2005).

Now we turn to our results once we estimated the effect of stock market on cross border M&As. We found that the stock market variable is positive and significant at 1% for Indonesia and 5% for Malaysia and Singapore. While for Thailand, it is insignificant for the stock market variable. The coefficient of stock for Indonesia is 1.245, Malaysia is 5.341 and Singapore is 3.034. Means that an increase by 1% in stock will increase the cross-border M&As by 1.245 percent for Indonesia, 5.341 percent for Malaysia and 3.034 percent for Singapore. Malaysia has higher coefficient compare to Singapore (second higher) and Indonesia. Therefore higher stock market positively spurs cross border M&A activity in these three selected ASEAN4 economies

Table 4.2
Indonesia – Dependent variable: $lnMAs_{ij}$

Variables	Pooled Model	Random Effects Model	Fixed Effects Model
$Constant$	2.277**(2.89)	1.277**(2.21)	2.482**(2.07)
$lnGDP_{ij}$	1.345** (2.58)	1.049***(4.80)	0.514***(2.94)
$lnTcost_{ij}$	-1.261**(-2.86)	-1.751**(-2.86)	-6.141**(-2.19)
$lnStock_{ij}$	3.035 (1.52)	1.245***(3.02)	4.769(1.30)
$lnCredit_{ij}$	2.254***(3.67)	1.515***(3.44)	1.016**(2.44)
$lnM2_{ij}$	0.661(0.91)	0.601**(2.43)	0.085**(2.69)
RER_{ij}	0.986 (0.55)	0.186(0.25)	0.393(0.88)
Breush-Pagan LM Test	1.47[0.031]		-
Hausman Test	-	5.34[0.253]	
Observation	69	69	69
Multicolinearity (vif)	-	-	5.21
Heteroskedasticity (χ^2 –stat)	-	-	10.89** [0.0123]
Serial Correlation (F-stat)	-	-	6.02** [0.0224]

Notes: * indicates significant at 10%, ** indicates significant at 5%, and *** indicates significant at 1%,;
t-statistics are in parentheses ( ) and p-value are in [   ].

Table 4.3

Malaysia – Dependent variable: $lnMAs_{ij}$

Variables	Pooled Model	Random Effects Model	Fixed Effects Model
$Constant$	2.553* (1.96)	3.153* (1.86)	4.611** (2.72)
$lnGDP_{ij}$	0.823** (2.64)	0.853** (2.96)	-0.203(-0.87)
$lnTcost_{ij}$	-1.389** (-2.34)	-1.659*** (-3.49)	-8.010 (-0.92)
$lnStock_{ij}$	4.441*** (2.96)	5.341** (2.41)	1.700 (0.98)
$lnCredit_{ij}$	1.132 (1.55)	1.492** (2.08)	2.893*** (3.57)
$lnM2_{ij}$	0.437** (2.26)	0.338***(5.25)	0.3487*** (3.37)
RER_{ij}	2.100*** (3.61)	2.430*** (3.31)	1.509** (2.24)
Breush-Pagan LM Test	2.10 [0.004]		-
Hausman Test	-	5.46 [0.724]	
Observation	69	69	69
Multicolinearity (vif)	-	-	3.26
Heteroskedasticity (χ^2 –stat)	-	-	8.11** [0.0437]
Serial Correlation (F-stat)	-	-	3.7210*** [0.0000]

Notes: * indicates significant at 10%, ** indicates significant at 5%, and *** indicates significant at 1%; t-statistics are in parentheses (   ) and p-value are in [   ].

Table 4.4
Singapore – Dependent variable: $lnMAs_{ij}$

Variables	Pooled Model	Random Effects Model	Fixed Effects Model
$Constant$	6.363** (2.12)	5.523** (2.36)	5.172* (2.01)
$lnGDP_{ij}$	3.538* (1.76)	3.432*** (3.42)	3.554** (3.90)
$lnTcost_{ij}$	-1.036** (-2.35)	-1.067** (-2.63)	-2.479 (-1.42)
$lnStock_{ij}$	3.607 (1.53)	3.034** (2.08)	3.587 (1.13)
$lnCredit_{ij}$	1.125** (2.22)	5.551*** (3.21)	2.352*** (3.02)
$lnM2_{ij}$	1.199** (2.16)	1.210*** (3.39)	1.162*** (3.45)
RER_{ij}	1.425 (1.27)	1.644 (1.18)	1.567 (0.99)
Breush-Pagan LM Test	2.10 [0.032]		-
Hausman Test		0.14 [0.325]	
Observation	69	69	69
Multicolinearity (vif)	-	-	4.06
Heteroskedasticity (χ^2 –stat)	-	-	8.52*** [0.000]
Serial Correlation (F-stat)	-	-	6.572*** [0.000]

Notes: * indicates significant at 10%, ** indicates significant at 5%, and *** indicates significant at 1%; t-statistics are in parentheses ( ) and p-value are in [ ].

Table 4.5
Thailand – Dependent variable: $lnMAs_{ij}$

Variables	Pooled Model	Random Effects Model	Fixed Effects Model
$Constant$	6.641 (1.56)	8.875 (1.26)	5.840 (1.23)
$lnGDP_{ij}$	0.334** (2.21)	0.609** (2.81)	0.221 (1.39)
$lnTcost_{ij}$	-0.786* (-1.78)	-1.988 (-1.63)	-1.292 (-0.71)
$lnStock_{ij}$	4.112 (0.89)	5.492 (0.98)	7.781 (1.01)
$lnCredit_{ij}$	-1.885** (-2.06)	-2.585* (-2.89)	-1.545** (-2.56)
$lnM2_{ij}$	0.482** (2.47)	0.402** (2.31)	0.420** (2.47)
RER_{ij}	2.837*** (4.93)	2.837*** (4.93)	3.078*** (5.42)
Breush-Pagan LM Test	2.10 [0.027]		-
Hausman Test		0.23 [0.735]	
Observation	69	69	69
Multicolinearity (vif)	-	-	3.42
Heteroskedasticity (χ^2 –stat)	-	-	32.80*** [0.000]
Serial Correlation (F-stat)	-	-	30.32** [0.031]

Notes: * indicates significant at 10%, ** indicates significant at 5%, and *** indicates significant at 1%; t-statistics are in parentheses ( ) and p-value are in [ ].

For the other financial development indicator, we estimate the effect of credit on cross border M&As. We found that the credit variable is positive and significant at 1 percent for Indonesia and Singapore and 5 percent for Malaysia. On the other hand, Thailand has negative significant at 10% level for the credit variable. The coefficient of credit for Indonesia is 1.515, Singapore is 5.551 and Malaysia is 1.492. Means that an increase by 1% in credit will increase the cross-border M&As by 1.515 percent for Indonesia, 5.551% for Singapore and 1.492% for Malaysia. Singapore has higher coefficient

compared to Thailand (second higher) and Malaysia. Thailand has a different scenario, where the coefficient of credit is -2.585. Means that an increase by 1% in credit will decrease the cross-border M&As by 2.585% for Thailand. In short, we found that credit positively spurs cross border M&A activity in Indonesia, Singapore and Malaysia economies.

The other measure of financial development, that is, M2 has a positive and statistically significant effect at 1 percent and 5 percent level in M&As activity in all selected ASEAN countries. Means that all regressions apart from random effects regression. The coefficient of approximately 0.601 suggest that one percent increase in M2 would increase M&As activity by 0.601 percent in Indonesia. Malaysia and Singapore show that the coefficient of approximately 0.338 and 1.210, respectively, suggest that one percent increase in M2 would increase M&As activity by 0.338 percent for Malaysia and 1.210 for Singapore, holding all other factors constant. In Thailand, the coefficient of approximately 0.402 suggests that a one percent increase in M2 would increase M&A activity by 0.402 percent, holding all other factors constant.

Real interest rates have a positive and significant effect, in two (2) of four (4) regressions on M&A activity in ASEAN4. In Malaysia and Thailand, the co-efficient of this variable is the largest; which is 2.430 and 2.837, respectively and are a partial elasticity which suggests that one percent increase in Malaysia and Thailand results in 2.430 and 2.837 percent increase in M&A activity. Real interest rate is not significant for Indonesia and Singapore.

4.3 Conclusion

Based on the Hausman test, the results from the panel data econometric analysis prefer random-effect model as the best model for the whole group of ASEAN4. For the whole sample, the finding indicated that a number of variables such as financial determinants variables like stock, credit and M2; and macroeconomics determinants variables like trade cost, GDP and real exchange rate are significant affect an outward cross-border M&As.

CHAPTER FIVE

CONCLUSIONS AND POLICY IMPLICATIONS

This chapter summarizes and concludes policy implications of the findings (as discussed in Chapter Four), detailed limitations of the study, and suggestions for further research.

5.1 Conclusions and Discussions

Table 5.1 shows that the summary of the empirical results for Equation 3.1 using conventional panel data analysis for the selected ASEAN countries. We found that by using Random Effect Analysis, there is an impact between M&As variable and economic growth (GDP), stock, credit, M2, and real interest rate even though some variables are not significant effects in some countries.

In order to achieve our objectives of this study regarding the role of financial development on the cross-border M&As, the regression paths between financial development indicators and cross-border M&As outflows were examined. Stock market capitalization shows a positive and statistically significant effect in influencing cross-border M&As for ASEAN4 countries. Thus, the result is in line with Hyun and Kim (2010) and Giovanni (2005).

Table 5.1
Regression of M&As Equation

Country	Indonesia	Malaysia	Singapore	Thailand
$Constant$	+ (s)	+ (s)	+ (s)	+ (ns)
$lnGDP_{ij}$	+ (s)	+ (s)	+ (s)	+ (s)
$lnTcost_{ij}$	- (s)	- (s)	- (s)	- (s)
$lnStock_{ij}$	+ (s)	+ (s)	+ (s)	+ (ns)
$lnCredit_{ij}$	+ (s)	+ (s)	+ (s)	- (s)
$lnM2_{ij}$	+ (s)	+ (s)	+ (s)	+ (s)
$lnRER_{ij}$	+ (ns)	+ (s)	+ (ns)	+ (s)

Note: + (positive), - (negative), s (significant), and ns (not significant)

Second financial development variable is credit. It shows that credit to private sector has a positive and statistically significant in influencing cross-border M&As for all selected ASEAN countries. This finding is consistent with the previous work of Vencatachellum and Wilson (2013) and Brook and Jongwanish (2011).

The third financial development variable is M2, It turned out to be positive and statistically significant in effecting cross-border M&As for the ASEAN4 countries. Means that the level of liquidity (M2) in the source country, positively affects the level of M&As in the host country. This finding is in line with Hatai and Rajan (2009) and Harford (2005).

We added GDP as a macroeconomic factor in our study on cross-border M&As. The findings supported the finding by Shen and Lin (2011). Our result showed the positive impact of GDP on cross-border M&As.

Trade cost is found to be negative and statistically significant in influencing the Cross-border M&As for ASEAN4 countries. Our results are in line with Shen and Lin (2011) and Demirhan and Masca (2008). For the real exchange rate variable, the results are positively and statistically significant for Malaysia and Thailand only. The others selected countries are not significant.

5.2   Policy Implications

Based on our findings, some policy implications and recommendation can be targeted for consideration by the government of these countries. Our main results show that financial development has a statistically significant and positive effect, suggesting that financial development will be an important determinant of the ASEAN4 countries' medium. Hence, the region's policymakers have to focus their efforts on policy and constitutional reforms benefiting the financial system as a whole.

The other implication for policymakers is safeguarding financial stability for supporting long run growth in ASEAN4 countries. Meaning that stability of safeguarding financial is prudential regulation and supervision. Financial stability also can speed up the development of the region's relatively less developed equity markets compared to the other major components of developing Asia's financial system. The benefit of diversified financial structure is greater stability and resilience during negative shocks. Well-functioning stock and equity markets have the important added benefit of providing stable and secure source of long run capital for the cross-border M&As activity.

Cross-border M&As are conducive for trade flows. Thus, our empirical results suggest the benefit of removing barriers to cross-border M&As from the economic development. The policy maker may give more attention to remove trade barriers to cross-border M&As. ASEAN4 countries can be motivated to increase cross-border M&As through promoting the effective regional trade agreement.

Our study by re-examining the relationship between macroeconomic variables such as GDP, trade and real exchange rate and cross-border M&As will contribute to the macroeconomic literature.

5.3   Suggestion for Further Studies

Cross-border M&As is very important in developing economies, especially in ASEAN countries. We can extend our study in order to enhance understanding on cross-border M&As and their determinants. The effect of cross-border M&As on employment is very important. Injection of more capital to the targeted firm to enhance the production capability, if the foreign acquisition completed, could turn results towards more employment. The cross-border M&As could bring more employment to the host countries, thus, the host countries could see technology being transferred from the acquiring countries. Banking sector development would be one of the interesting studies that will light up some future determinants for M&As theory.

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