MERGER AND ACQUISITION ANNOUNCEMENTS AND THEIR EFFECT ON RETURNS TO SHAREHOLDERS OF BIDDING FIRMS AND TARGET FIRMS: EMPIRICAL EVIDENCE FROM MALAYSIA

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Abstract

This study investigates the impact of announcements of mergers and acquisitions (M&As) on stock prices of bidding firms and target firms in Malaysia. Using an event-study methodology to examine the market reaction to the announcements, 59 target firs and 26 bidding firms during the period from 1 January 2011 to 30 June 2015 have been identified. In addition, the acquirer's status is taken into account in this study to examine their impact on abnormal returns (ARs). The data on M&As' is obtained from Thomson SDC Platinum Merger and Acquisition Database and also from Bursa Malaysia website. The ARs are derived by using two models, namely the market model (MM) and market adjustment returns (MARs) model. FTSE Bursa Malaysia Kuala Lumpur Composite Index (FBMKLCI) and FTSE Bursa Malaysia EMAS Index (FBMEMAS) are used as the benchmarks. The findings indicate target firms gain significantly on the announcement day (+3.5%). The multi-day windows around the announcement day also show positive cumulative average abnormal returns (CAARs) for the two models and the two benchmarks. +15.83% is reported in the longer window (-20 to +20) and +8.92% in the 3-day window. For bidding firms, no evidence of value creation is observed.

Keywords: mergers and acquisitions, abnormal returns, bidding and target firms, payment method.

Abstrak

Kajian ini meneliti kesan pengumuman penggabungan dan pengambilalihan (M&A) pada harga saham firma pembida dan firma sasaran di Malaysia. Dengan menggunakan kaedah kajian peristiwa untuk mengkaji tindak balas pasaran terhadap pengumuman, sebanyak 59 syarikat sasaran dan 26 firma pembida dalam tempoh 1 Januari 2011 sehingga 30 Jun 2015 telah dikenal pasti. Di samping itu, status pemeroleh turut diambil kira di dalam kajian untuk melihat kesannya ke atas pulangan tidak normal (AR). Data mengenai M&A diambil dari pangkalan data penggabungan dan pengambilalihan Thomson SDC Platinum dan juga dari laman web Bursa Malaysia. Penilaian AR diperoleh dengan menggunakan dua model iaitu model pasaran (MM) dan model pulangan pelarasan pasaran (MAR). Indeks FTSE Bursa Malaysia Kuala Lumpur (FBM KLCI) dan Indeks FTSE Bursa EMAS Malaysia (FBMEMAS) digunakan sebagai penanda aras. Dapatan kajian menunjukkan firma sasaran mengutip perolehan ketara pada hari pengumuman (+3.5%). Jendela pelbagai hari di sekitar hari pengumuman juga menunjukkan kumulatif positif pulangan purata tidak normal (CAAR) bagi kedua-dua model dan dua penanda aras. Selain itu, sebanyak +15.83% dilaporkan di dalam jendela yang lebih lama (-20 hingga +20) dan sebanyak +8.92% di dalam jendela 3 hari. Bagi firma pembida, tiada bukti pembentukan nilai yang dapat diperhatikan.

Kata kunci: Penggabungan dan pengambilalihan, pulangan tidak normal, firma pembida dan sasaran, kaedah pembayaran.

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Table of Contents

CHAPTER 3: METHODOLOGY

CHAPTER 4: EMPIRICAL FINDINGS

CHAPTER 5: CONCLUSION

List of Tables

List of Appendices

CHAPTER 1
INTRODUCTION

1.1 Introduction

This chapter provides the background of the study, merger and acquisition activities in Malaysia, problem statement, research questions, research objectives, as well as significance, scope and organization of the study.

1.2 Background of the Study

Literature review on mergers[1] and acquisitions[2] (M&As) shows two general groups of studies that deal with market reaction to M&As announcements. Various studies have been undertaken in the past to examine the impact of M&A announcements on bidding and target firms. However, current studies tend to focus either on the effect of merger announcements or acquisition announcements separately.

In general, M&As can be classified into three kinds (Ross, Westerfield, & Jaffe, 2009):

1. Horizontal merger and acquisition: both counterparts of the deal are involved in the same industry.
2. Vertical merger and acquisition: both counterparts of the deal are involved in

[1] **Merger**: A merger refers to the absorption of one firm by another; the acquirer firm keeps its name and identity while the acquired firm finishes as a business entity. Consolidation is also considered as merger except the acquirer and the acquired firm create a new entity while the old entities for both firms cease (Ross, Westerfield, & Jaffe, 2009).

[2] **Acquisition:** Different definitions are provided by literature about acquisition. (Ross et al., 2009) defined acquisition as the process of a firm (acquirer) trying to acquire another firm (target firm) by purchasing its stock in exchange for cash, share of stock or other securities, when acquiring directly from shareholders of a target firm. Another definition by Clayman, Fridson, and Troughton (2012) refers an acquisition as an event when the acquirer purchases only a part of another company.

different industries but have joint factors.

3. Conglomerate merger and acquisition: the buyer and the seller are involved in different industry for diversification purposes.

There are several methods of payment employed by the bidding firms to settle the M&A deals. Among them are cash, shares, cash and shares or cash, shares and debt. M&As can also be classified into two types based on the target firm's response to the acquisition bid. A takeover is friendly when the target firm (majority of board members and shareholders) agrees or accepts the takeover proposal. If the target firm does not agree with takeover bids, it is known as hostile takeover (Morck, Shleifer & Vishny, 1988).

In the 1980s, most of the initial studies on M&As were carried out in United States (US) and Europe. For example, Dodd (1980); Asquith, Bruner, and Mullins (1983); Travlos (1987); Bradley, Desai, and Kim (1988); Berkovitch and Narayanan, (1993); Datta and Puia (1995); Schwert (1996); Andrade, Mitchell, and Stafford (2001); and Goergen and Renneboog (2002, 2004).

Findings related to target firms show significant and positive abnormal returns[3] (ARs) which are higher than the returns experienced by the bidding firms. For example, Martynova and Renneboog (2011) reported significant positive ARs of up to +9.13% for target firms on the announcement day in Europe. Similarly, Subeniotis, Kroustalis,

[3] **Abnormal Return**: a term used to describe the actual returns which differ from the expected rate of returns generated by a given security or portfolio over a period of time (Reilly & Brown, 2012).

Tampakoudis, and Poulios (2011) reported significantly positive ARs of +11.99% on the announcement day for target firms in the US.

There is no clear evidence on the existence of significantly positive ARs to shareholders in bidding firms on the first announcement day of M&As. Dodd (1980) reported significantly negative ARs of -0.62% on the announcement day. In contrast, a +0.53% and +0.54% significantly positive ARs was reported in the US and Europe, respectively on day 0 (Favato, Nurullah & Cottingham, 2015; Martynova & Renneboog, 2011). However, there still exists conflicting M&A studies, where most findings in the short-term indicate low returns, and in some cases, almost none for the bidders (Favato et al., 2015; Martynova & Renneboog, 2011; Travlos, 1987).

In addition to US and European countries, studies on M&As have been conducted in other developed and developing countries. For example, Bellamy and Lewin (1992) in Australia; Mat Noor (1992) and Isa and Lee (2011) in Malaysia; Wong and Cheung (2009), Ma, Pagán, and Chu (2009) and Shah and Arora (2014) in Asia and the Asia-Pacific; Rani, Yadav, and Jain, (2013), and Jain and Sunderman (2014) in India; Bhabra and Huang (2013) in China; and Sehgal, Banerjee, and Deisting (2012) in BRICKS[4] countries.

For target firms, positive ARs were documented for target firms on day 0 and over multi-day windows. Shah a,nd Arora (2014) analysed bidding and target firms' reaction to

[4] Brazil, Russia, India, China, South Korea and South Africa

M&A announcements in the Asia-Pacific; they documented significant positive CAARs over four event windows for target firms and the CAARs increased with the length of the event window (Bellamy & Lewin, 1992; Jain & A. Sunderman, 2014; Rahim & Pok, 2013; Shah & Arora, 2014).

On the other hand, there are inconclusive results from the studies conducted for bidding firms. Low positive ARs were documented over short multi-day event windows before and after the M&A announcement day (Ma, J., Pagan, J. A., & Chu, 2009; Rani et al., 2013; Svetlana & Roman, 2014). In contrast, some studies have reported significantly negative ARs on day 0 and over some multi-day windows (Bellamy, & Lewin, 1992; Wong, A., & Cheung, 2009). Shah and Arora (2014) found that bidding firms did not experience any ARs on day 0 and Cumulative Average Abnormal Returns (CAARS) were statistically not significant over different event windows.

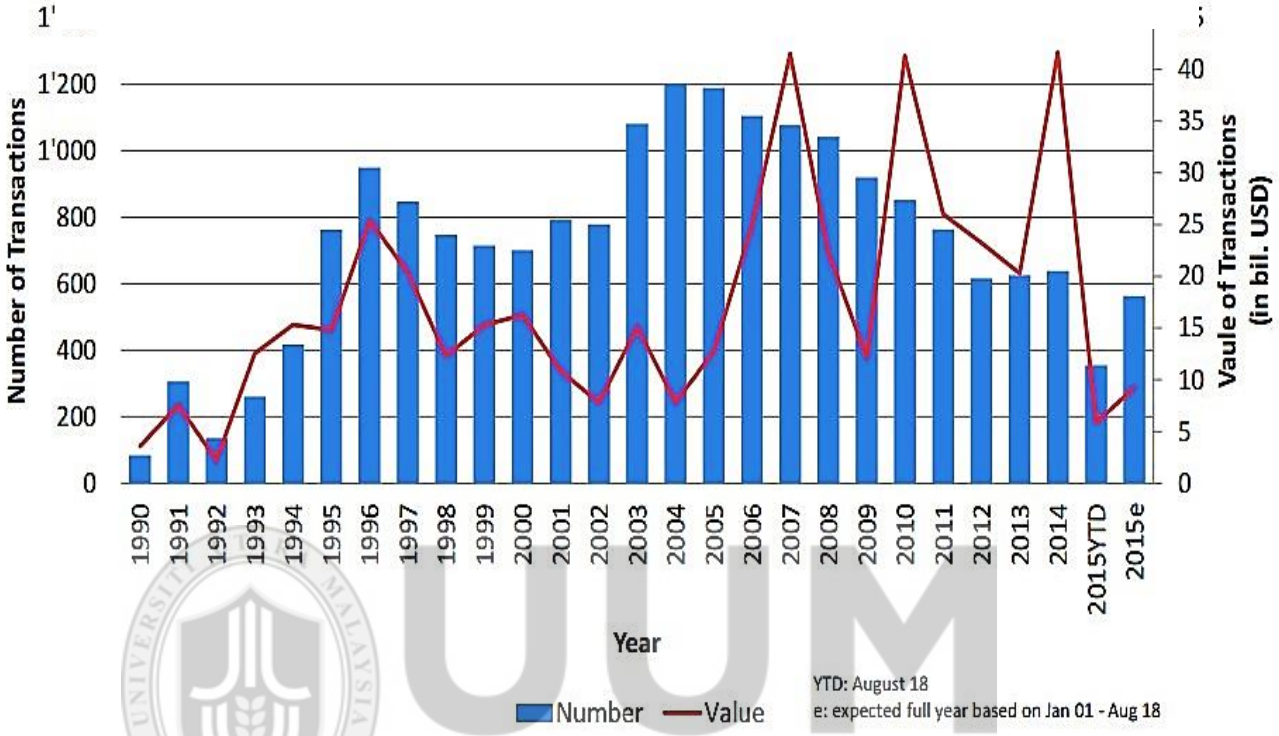
1.3 Merger and Acquisition Activities in Malaysia

M&A activities are increasing day by day. M&As are among the strategies used by firms to support growth, liquidity, tax shield, protect and create new markets, and so on. According to the latest report by Thomson Reuters related to M&As, the value of announced M&A activities in the emerging markets increased by 29.6% amounted to US$277.5 billion in 2014, compared to US$214.1 billion in 2013. The value involved 157 countries spared across the Asia-pacific, the Middle East, Africa and the Americas[5]. In the fourth quarter of 2014 Asia Pacific's M&As were US$264 billion, which represented 22%

[5] Emerging Markets M&A Review, first quarter 2015, Thomson Reuters.

of the total global M&As[6].

Figure 1.1
Announced Mergers & Acquisition: Malaysia 1990-2015



Source: Thomson Financial, Institute of Mergers, Acquisitions and Alliances (IMAA) analysis

Malaysia has seen significant increasing M&A activities during the last 20 years in terms of value and number of transactions. During the period of 1990 -2014. M&As amounted to US$41 billion in 2007 which is the highest value during this period from 1990 to 2007. From 2008 until 2014, M&As were unstable in its value and the volatility of M&As value was high, where it scored the highest value in 2010 and 2014 (US$41) and less valuable in 2009 (US$12). M&As are expected to decline in 2015 to close to US$9 billion (refer to figure 1.1).

[6] Global M&A Review | 4Q 2014, Thomson Reuters.

A review of studies on market reaction to some events, such as earnings report, dividends, capital expenditure decision, and stock-split decisions, show that M&A announcements can be considered as an important event that has an impact on stock price movements for bidding and target firms.

1.4 Problem Statement

Evidences from literature review about market reaction to M&As in emerging markets are inconclusive. In the Malaysian case, stock price movements on M&A announcement day for bidding firms and target firms show unclear and mixed results. A Malaysian study by Mat Noor (1992) reported insignificant ARs on the announcement day for target firms in the period 1977-89, while a majority of M&A studies in the emerging markets have documented significantly positive ARs on day 0, reaching up to a minimum 3%. Therefore, this study aims to fill the gap in the academic literature on the announcement effect of M&As in Malaysia, especially in the period after 2010. M&A studies have shown changes in the level of ARs and CAARs over time. For example, US studies have documented a clear change in level of ARs and CAARs during the 1970s up to the last study in 2015.

M&As are considered as one of the important tools of business transformation for firms and economies. Decision-makers need detailed information and analysis about M&A movements to assess and make appropriate decisions. A good example is the transformation of the Malaysian financial sector through M&As during 2000-2010; it is clear that the financial sector is stronger and has helped the Malaysian economy to face

global challenges more firmly than before. For companies, more studies about M&As will help companies to take rational decisions.

Only a few studies have been done in Malaysia on M&As. In addition, Malaysian M&As have a unique characteristic in terms of the family business factor and its impact on stock reaction of M&A returns which need more studies. For that reason, researcher is motivated to examine the impact of M&As on shareholders' wealth in Malaysia, especially the impact of payment method on returns to bidding and target firms.

1.5 Research Questions

Based on the above discussion, this study aims to answer the following questions:

1. Are there any abnormal returns for Malaysian bidding and target firms on the M&A announcement day and surrounding the announcement day?
2. Are there any pre-announcement abnormal returns for both the bidding and target firms?
3. Are there any post-announcement abnormal returns for both the bidding and target firms?

1.6 Research Objectives

The research objectives are as follows:

i. To examine stock price reaction to the M&A announcement for the Malaysian bidding and target firms.

ii. To examine whether the pre-announcement abnormal returns exist for bidding and target firms.

iii. To examine whether the post-announcement abnormal returns exist for bidding and target firms.

1.7 Significance of the Study

The findings from this study might be of interest to managers in making their decisions, such as impact of payment method and importance of assessing of the target firms' value. Companies need to know more about the changes in direction of returns from M&As by comparing with the previous M&As. For the country, it can improve regulations and polices related to M&As in order to capitalize the benefits to the economy and ease trading in the market.

1.8 Scope of the Study

This study focuses on M&A activities in Malaysia. In particular, it focuses on M&A announcements that occurred for the period from January 2011 to June 2015. The purpose of this study is to examine market reaction to the M&A announcements by public listed firms on the main market of Bursa Malaysia.

1.9 Organization of the Study

This study has five chapters organized as follows: Chapter 1 is the introduction, which explains the background of this study, problem statement on market reaction to M&As, research questions, research objectives, significance of the research, and scope of the

study. Chapter 2 explains literature review of relevant theories and empirical insights into M&As in developed and developing countries, including Malaysian M&A studies. Chapter 3 explains sample data, development of hypotheses, and the methodology used in this study. Chapter 4 shows the empirical analysis and findings and chapter 5 is the summary of findings, contributions and limitation of the study and recommendations and suggestions for further research.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter presents a concise view about what has been done with regards to M&As, by looking into the theoretical as well as empirical aspects of M&As, with a focus on short-term effects. The causes and consequences of M&As in target and bidding firms are discussed and linked to the existing theories. Section 2.2 discusses underlying theories that explain why M&As happen. Section 2.3 discusses the empirical literature on M&As, with more focus on cases in a developing country, such as Malaysia.

2.2 Theoretical Review

There are a number of theories related to M&A that describe and analyze bidding firms' behavior towards M&As. The theories include motivation to carry out M&As and the reasons behind selecting a specific payment method. The same theories produce different interaction and engagement among bidders as well as target firms.

2.2.1 M&A Theories and Bidding Firms

The earlier studies on M&As have discussed a number of motivation theories for M&As. Three prominent theories which are frequently used to explain the motives of bidding firms for engaging in M&As are the synergy theory, agency theory and the hubris theory (Berkovitch & Narayanan, 1993; Kiymaz & Baker, 2008; Luo, 2007; Martynova & Renneboog, 2008).

- **Synergy Theory**

According to this theory, managers get involved in M&As to maximize shareholders' wealth through synergy creation. A number of studies have documented that synergy is the prime motive for M&As (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004; Kiymaz & Baker, 2008). The synergy theory offers a wide range of value-added measurements and can be classified into three main groups as follows:

First, both the bidding and target firms can get benefit by improving their performance that will allow to increasing revenues and reducing cost. Some benefits can be in the form of economies of scale and scope (Datta & Puia, 1995; Rani et al., 2013). Better cooperation between bidder and target firms by organizing hours' work, coordination between production lines, and covering more market segments, can be achieved by M&As. Ollinger, Nguyen, Blayney, Chambers, and Nelson (2006) examined M&As' synergy in the US food industry using labor productivity as a measure of synergy; they found that labor productivity is higher for the acquirer and acquired firms after M&As. The synergy theory is in line with disciplinary theory where both the bidding and target firms working in the same industry can focus on operating efficiency goals other than profitability (Ollinger et al., 2006).

Second, financial synergy creates value to a bidder to maximize gains by improving cash flows, increasing the liquidity, providing more finance sources,

reducing tax payment and lowering interest payment. Also, financial synergy can be achieved by increasing diversification of bidder when it acquires target firms in a different industry and region (Favato et al., 2015).

Third, managerial synergy which refers to a form of management efficiency as a result of combining managerial experience by the bidding and target firms or improving the poor managerial performance in the bidding firm or in the target firms (Asquith, 1983; Bradley et al., 1988). Target firms benefits through managerial synergies arise when the acquirer's management possesses superior planning and monitoring abilities, the poor target management team are subject to the discipline of the market for corporate control (Bradley, Desai, & Kim, 1983).

- **Agency Theory**

The agency theory assumes that the managers focus more to maximize their own benefits and wealth than maximizing the shareholders' wealth (Jensen & Meckling, 1979). Firms' managers try to keep their power as much as possible through keeping resources under their control, while payouts to shareholders will reduce some of these resources (Jensen, 1986). Some private benefits can return to managers through stimulating firm growth rather than frim value (Goergen & Renneboog, 2002), managers prefer to push firm growth to increase the size of firm which is the main determinant of the level of managerial salaries, bonuses as well as of the allotment of share options (Conyon, 2006), which is the case in M&A when bidder obtain new capital by acquiring another firm. The Agency

theory, which is an extension of the managerial utility maximization theory[7], states that managers prefer to be involved in M&As rather than distribute the excess cash to shareholders even if the offer of M&As is not attractive. Berkovitch and Narayanan (1993) found that the negative returns from takeovers are more related to the agency theory. Agency theory is associated with using free cash flow rather than using equity financing and this may lead to negative returns to bidders (Jensen, 1986). Empirical evidence from hostile M&A bids shows large positive returns to target firms but significantly negative returns for the bidders. This may be due to the hubris (see below) or agency motives (Goergen & Renneboog, 2004).

- **Hubris Theory**

Another popular theory used to explain M&As' motivation is the hubris theory. According to Roll (1986), managers get involved in M&As based on their own judgement and motivation; they misevaluate target firms due to their hubris motive. As a result, no value will be added to bidding firms when they pay more for a target firm. For example, the manager's excessive confidence which can take the form of overpayment for a M&A (Hayward & Hambrick, 1997). In this case, the hubris theory can be associated with another theory related to payment method, called overpayment hypothesis discussed below. Returns to bidders are significantly negative for hostile M&As associated with hubris or agency motives (Goergen & Renneboog, 2004). A number of studies confirmed empirically the

[7] Utility-maximizing managerial behavior requires the use of the firm's resources to provide on-the-job amenities. These might include not only the usual amenities but also abnormally high managerial wages and excessively large firms (Demsetz, 1983).

existence of hubris as motives for bidding firms to get involved on M&As (Berkovitch & Narayanan, 1993; Kiymaz & Baker, 2008)

2.2.2 M&A Theories and Payment Method

Bidding firms determine which method should be used to finance bids. Several theories in literature play an important role in selecting payment method in corporate M&As. Among the top theories are investment opportunity theory, risk sharing theory, signalling theory, and overpayment theory (Chatterjee & Kuenzi, 2001; Yang, Qu, & Kim, 2009). This section explains the link between payment method and the related theories. Two types of financing are share and cash financing are discussed.

- **Share financing bids**

Myers and Majluf (1984) documented that payment method signals to the market important information about the bidders. When the bidding firm believes the firm is currently overvalued, it will use stock financing. Under the signalling theory assumption, using stock financing is considered as bad news for the bidder. Empirical evidence is provided by Travlos (1987) confirming the negative effects on stock financing takeovers.

An acquiring target firm that has high growth opportunity by using stock financing helps the acquirer to keep the cash for investment purposes. This is known as investment opportunity theory (Martin, 1996). Using stock financing is preferred

where there is a shortage of cash. In addition, using stock financing is a good tool to reduce problems related to agency cost when using cash financing (Roll, 1986). Evidence by Martin (1996) shows that bidder firms with cash shortage tend to use equity finance mode. Also, when the investment opportunity is strong, acquirer firms tend to use stock financing.

According to the risk sharing theory by Hansen (1987), it is assumed that uncertainty about target value increases the risk which pushes the bidding firm to use stock financing, which imposes on the shareholders' target firm to share post-acquisition risk. Martin (1996) found his findings to be consistent with this theory.

- **Cash financing bids**

Under the asymmetric information theory, bidders use cash finance if they have an attractive target firm. This is because using cash by a bidder reflects the bidder's strong financial position, Hence, providing a positive signal to the market (Myers & Majluf, 1984). On the other hand, the investment opportunity theory suggests that bidding firms prefer to keep cash and use equity to settle bids. The reason behind that is the big chance for bidders to invest cash when the investment opportunity in the future is high while using debt will help in the loss of investment opportunity. The theory was tested by Martin (1996) and he confirmed that tendency to use equity associated with investment opportunity in future. Sehgal, Banerjee, and Deisting, (2012) tested the two theories (signalling and investment opportunity) and the outcomes are consistent with the hypotheses by the two theories.

The Overpayment theory argues that higher premium to target firms often attendant with cash financing underlying several factors: regulation requirement, competition, and tax effects, with smaller gains or losses to the bidding firms (Yang et al., 2009). Datta and Puia (1995) pointed out that overpayment may happen when managers overestimate their ability to conduct the target firm underlying hubris motives.

Using cash financing is linked to target firms' characteristics such as size and shareholders' control problems. Favato et al., (2015), in their study about acquisition returns in the US, found a significant relationship between small size for target firms and bidding firms that use cash financing. This contrasts findings on European acquisition where size of target firm is not significant, according to Goergen and Renneboog (2004). They justified this with the large value of bids in their study of above US$100 million.

2.2.3 Information Asymmetry

The information asymmetry theory (Myers & Majluf, 1984) is to some degree related to all M&As' theories. This is especially true for choosing a payment method. The information asymmetry theory can be used to explain the motives of M&As and the choice of payment method. Managers of bidder firms who have private sources to get information before others, or can derive superior information, will take action quickly. Bidding firms depend on their sources to get

information about the acquirer firms as well as the target firms, such as value of target and bidding firms. Do M&As add value to bidders? Which is the appropriate method to finance a bid according to information received about competition, regulation and target firm reaction? Yook, Gangopadhyay, and McCabe (1999) documented that symmetric information exists and plays an important role in the choice of payment method in US acquisitions.

2.3 Empirical Evidence

This section attempts to give a review of empirical evidence in M&A studies, by looking at what has been documented by studies in developed markets, such as US and the United Kingdom (UK) and emerging markets, such as China, India, and Malaysia. Target and bidding firms get involved in M&A activities to achieve some goals. Did target firm and acquire firms generate abnormal returns in the short-term as a result of M&As? More than four decades of empirical studies have attempted to answer this query.

2.3.1 Bidding Firm's Evidence

Table 2.1[8] (Panel A) shows studies on market reaction to M&A announcements in developed markets. Significant ARs between -1% and +1% are documented on the announcement day (Asquith, 1983; Bradley et al., 1988; Dodd, 1980; Favato et al., 2015; Kiymaz & Baker, 2008; Martynova & Renneboog, 2011). Most studies have reported a positively significant CAARs on a 2-day window (-1, 0) ; and 3-day window (-1, +1) of between +0.2% to 1.92% (Favato et al., 2015;

[8] Table 2.1 follows Martynova and Renneboog (2008) and Lee (2010).

Goergen & Renneboog, 2004; Gregory & O'Donohoe, 2014; Martynova & Renneboog, 2011; Schaik & Steenbeek, 2004). CAARs in the longer windows of 11-day (-5, +5) to 121- day (-60, +60), show varied results. Most of the studies conducted in the developed markets show returns between -3% and +5% (Bradley et al., 1988; Favato et al., 2015; Higgins & Beckman, 2006; Kiymaz & Baker, 2008; Martynova & Renneboog, 2011).

The picture about the pre-announcement returns to bidding firms is not complete. However, the most recent study by Favato et al. (2015) has reported significantly positive ARs for pre-announcement days (day-3, day -2 and day -1) ranging from +0.89% to +1.45%, and significant positive pre-event return for bidding firm for (-10,-1) window, i.e., +2.47%. Higgins and Beckman (2006) documented significantly positive CAARs for pre-announcement (-20,-1) window at +2.59%.

A number of variables have been identified as the factors that influence the returns. The variables include the target status, type of bid (friendly or hostile), time of bid, deal size, domestic or foreign firm, firm's characteristics, premium bid, market conditions, and payment method. Payment method has been tested by some studies that described impact of payment method on shareholders' returns for bidder firms. Another group of studies has investigated payment methods' determinants. This study focuses on impact of payment method on bidder shareholders' returns in the short-term. Past studies have shown that bidders who used cash financing experienced significant positive CAARs (Andrade et al., 2001; Favato et al., 2015; Martynova & Renneboog, 2011; Servaes, 1991).

The findings reported positively higher significant CAARs for bidders that who used cash financing in the shorter windows compared to equity financing or mixed financing, while the longer window showed significantly positive CAARs for bidders who financed bids by equity (Andrade et al., 2001; Favato et al., 2015; Martynova & Renneboog, 2011). Servaes (1991) reported positively significant CAARs of +3.44% for cash bids in the long window (-1, close[9]).

Returns from stock financing bids show mix results for bidding firms. Some studies documented significantly negative CAARs for stock financing bids (Andrade et al., 2001; Servaes, 1991; Travlos, 1987). In contrast, findings by Goergen and Renneboog (2004) showed higher gains for equity bids in the short windows more than cash bids and mixed bids; equity of CAARs increases when it moves to the long windows whereas cash bids of CAARs reduce when it moves to the long windows. In case of payment method, the signalling theory explains that the difference in response by bidding firms to M&As may be due to firms' motivation and bidding firm's value in the market.

Table 2.1 (Panel B) shows a summary of studies carried out in the developing markets related to market reaction to M&A announcements. Emerging markets' bidding firms gain significant ARs ranging between +0.43% and +1.03% on the announcement day (Isa & Lee, 2007; Ma et al., 2009; Mat Noor, 1992; Rani et al.,

[4] Window from day -1 until day of closing the deal by accepting or rejecting the offer.

2013). The ARs evidence from the developing markets on day 0 is consistent with the developed markets' evidence. Findings from multi-day windows around M&A announcement day shows significant positive CAARs, ranging from +0.54% to +2.1% and the highest CAARs in the longer windows (Bhabra & Huang, 2013; Ma et al., 2009; Rani et al., 2013; Shah & Arora, 2014; Svetlana & Roman, 2014). Wong and Cheung (2009), in their study on M&As in Asian markets, showed significantly negative of -0.55% CAAR on 2-day (-1, 0) window in Taiwan and significant positive CAAR of +0.5% in the same window for Singapore, and no significant CAARs for the rest of the sample (Hang Kong, China, Japan, and South Korea).

Table 2.1 (Panel C) gives an overview about Malaysian evidence related to M&As. Significantly low positive ARs (around +1%) on day 0 are reported from Malaysian M&A for bidding firms (Isa & Lee, 2011; Mat Noor, 1992). Findings for multi-day windows show significantly positive CAARs, ranging from +0.24% to +1.17% for 2-day and 3-day windows; bidder CAARs are higher for long windows ranging from +1.35% to 3.61% from the 41-day to 121-day windows (Isa & Lee, 2011; Mat Noor, 1992; Rahim & Pok, 2013). Isa and Lee (2011) examined the payment method impact on bidding firms' returns for firms offered public target firms and also firms offered private target firms. The outcomes for cash bid show significantly positive CAARs from bidders having private targets. No significant returns are observed for share bids. Public target firms show significantly positive CAARs for bidding firms that used cash as well as for bidders that used share financing but the cash offers are higher.

Rahim and Pok (2013) documented significant positive CAARs of +1.35% for 61-day (-30, +30) window, and +1.79% for both 41-day (-40, 0) and 121-day windows for cash offers; it is not significant for short event windows. For equity offers, the CAARs for bidding firms are significantly positive at +4.24% for 41-day window (-40, 0); and mixed offers not significant for all event windows.

Lack of evidence about impact of payment method for Malaysian bidding firms and the conflicting results have caused the situation to be unclear on the effect on bidding firms' returns.

2.3.2 Target Firm's Evidence

Table 2.1 (Panel A) shows result of studies that deal with returns to target firms from M&As in the developed markets. Evidence for developed market shows strong significantly positive ARs (+4.3% to +11.09%) on day 0 and CAARs (+9% to +32%) in multi-day event windows before and after the announcement day (Andrade et al., 2001; Asquith et al., 1983; Asquith, 1983; Borges & Gairifo, 2013; Bradley et al., 1988; Dodd, 1980; Favato et al., 2015; Goergen & Renneboog, 2004; Gregory & O'Donohoe, 2014; Martynova & Renneboog, 2011; Schaik & Steenbeek, 2004; Servaes, 1991; Subeniotis et al., 2011). The result indicates that higher CAARs are reported for longer event windows (Andrade et al., 2001; Goergen & Renneboog, 2004; Martynova & Renneboog, 2011).

Financing method has significant impact on target firms' returns for bids with cash financing. Past studies have shown target firms earn high returns if the deal is settled by cash compared to target firms that received share financing bids or mixed financing bids (Goergen & Renneboog, 2004; Martynova & Renneboog, 2011; Servaes, 1991). Goergen and Renneboog (2004), in their study on European countries, examined target firms' characteristics and payment method. They reported that cash financing was frequently used for smaller targets.

Table 2.1 (Panel B) gives an overview of studies in developing markets that measure takeover returns to target firms. Significantly positive ARs (+ 2.01% to +4.4%) is reported on day 0 for target firms (Jain & Sunderman, 2014). Significantly positive CAARs (+4.72% to +27.2%) in multi-day event windows is documented from target firms (Agarwal & Singh, 2006; Jain & Sunderman, 2014; Shah & Arora, 2014). However, more studies on payment method impact on returns to target firms in the short-term are needed in future.

Table 2.1 (Panel C) shows evidence from Malaysian M&As. Positive ARs at day 0 are insignificant for target firms by Mat Noor (1992). Significant positive CAARs (+1.35% to +5.14%) shown in multi-day event windows, increasing in long windows, the range of CAARs for target firms is lower than what has been reported in developed and developing markets' studies as minimum CAARs (Mat Noor, 1992; Rahim & Pok, 2013).

In the case of payment method, Rahim and Pok (2013), in their study for third wave of M&As in Malaysia, found that cash offers in 3-day and the 5-day windows recorded high returns to target firms compared to equity offers and mixed offers; equity offers in 61-day, 81 day and 121-day window show high returns compared to cash and mixed bids. The findings by Rahim and Pok (2013) are consistent with the developed markets' evidence.

2.4 Summary

A number of studies have been conducted about market reaction to M&A announcement in the developed markets. However, there are only a few studies are done in the developing markets about market reaction to M&A announcement. Outcomes from developing markets are varied, and every market is unique. This might be due to uniqueness of every market.

Table 2 .1.

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

The following note is applied.

Types of mergers and acquisitions: T – takeovers, TO – tender offer, M – mergers, A – acquisitions, FA – friendly acquisition, HA – hostile acquisition, Share or S – all-share offers, Cash or C – all-cash offers, Mixed – combination of share and cash offers, SU – successful acquisition, UN – unsuccessful acquisition.

Benchmarks Return Models: MM – market model; MAR – market adjusted Return; BMCP – beta-matched control portfolio, CAPM – capital asset pricing model.

Sample size refers to the number of observations for acquiring firm/ target firms, respectively.

Measurement of Returns: CAAR – cumulative average abnormal return; AR – average abnormal return on announcement day (day 0); PWAAR –precision weighted average abnormal return.

Significance level: * – significance is not reported, a/b/c – statistically significance at 1% / 5% / 10%, respectively.

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR%	
Panel A: Developed Markets' Evidences															
Dodd (1980), US	**1970-77**	**MM**	**126/151**	M	**(-20, 0)** **(-40,+40)**	**-0.62**[a]	**+0.80** **+5.17***	**+4.30**[a]	**+21.78a** **+21.43***	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
Asquith (1983), US	**1962-76**	**BMCP**	**196/211** **89/91**	**SU –M** **UN –M**	Interim (-1, outcome)[10]	**+0.20** **+0.50**	**-0.50** **-6.2** [a]	**+6.20** [a] **+7.00** [a]	**+8.00** [a] **-8.10**[a]	**(-10,-2)**	**+1.5*** **+1.0***	**+5.0*** **+5.2***	**n/a**	**n/a**	Bidding firms appear to have small but insignificant positive excess returns at the press day.
Asquith, Bruner, and Mullins (1983), US	**1963-79**	**MM**	**70/16**	**M**	**(-1,0)** **(-20,0)** **(-20,+20)**	**n/a**	**+1.20**[a] **+2.40**[a] **+0.3**	**n/a**	**n/a** **+20.3**[a] **+19.0**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	Result taken for the first attempt by bidding (1 out 4)
Travlos (1987), US	**1972-81**	**MM**	160 C 60 S 100	M, TO Cash Share	**(-1,0)** **(-10,+10)**	**+0.29** [c] **-0.69** [a]	**+0.24** **-0.13** **-1.47** [a] **+1.29**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
Bradley, Desai, and Kim (1988) US	**1963-84**	**MM**	236/236	TO	**(-5,+5)** **(-5,+20)**	**+0.23**	**+0.97** [a] **+1.70** [b]	**+14.5**	**+31.77** [a] **+29.37**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	target and acquiring firms realize significant positive abnormal rectums
Chang (1998), US	**1981-92**	**MM**	Privet target	T C 131 S 150	**(-1,0)**	**n/a**	**+0.09** **+2.64** [a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	On average positive AR to the bidder with share finning and zero in cash, target state public has impact
			Public target	T C 101 S 154	**(-1,0)**	**n/a**	**-0.02** **-2.64** [a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	

[10] Period from the bid's beginning until the stockholders vote. Interim period is the period from one day after the press day until two days before the outcome day.

Table 2.1 (continued)

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR%	
Panel A: Developed Markets' Evidences															
Servaes (1991), US	**1972-87**	**MM**	**384/704**	**T**	**(-1, Close)**	**n/a**	**-1.07** [b]	**n/a**	**+23.64** [a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
			172/408 **142/180** **66/100**	**Cash** **Share** **Mixed**	**(-1, Close)**	**n/a**	**+3.44** [a] **-5.86** [a] **-3.74**[a]	**n/a**	**+26.67** [a] **+20.47** [a] **+21.05** [a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
Andrade, Mitchell, and Stafford (2001), US	**1973-98**	**MM**	**3688**	**M**	**(-1,+1)** **(-20,Close)**	**n/a**	**-0.7** **-3.8**	**n/a**	**+16** [b] **+23.8** [b]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	Acquirer and target gains more when it use no equity financing
			payment	**Share** **No share**	**(-1,+1)** **(-20,Close)**	**n/a**	**-1.5** [b] **-6.3** **+0.4** **-0.2**	**n/a**	**+13** [b] **+20.8**[b] **+20.1** [b] **+27.8**[b]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
Schaik and Steenbeek (2004), Japan	**1993-03**	**MM**	**136**	**M**	**(-1,0)**	**n/a**	**+1.37** [a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
Goergen and Renneboog (2004), Europe	**1993–00**	**MM**	**Domestic 86/85**	**MA**	**(−1, 0)** **(−2, +2)** **(−40, +0)** **(−60, +60)**	**n/a**	**-0.45** **-0.10** **-0.57** **-0.53**	**n/a**	**+10.22** [a] **+12.72** [a] **+22.74** [a] **+22.87** [a]	***All cash 86/88***	***+0.37*** [c] ***+0.90*** [c] ***-1.18*** ***-0.41***	***+9.89*** [a] ***+13.56*** [a] ***+27.49*** [a] ***+28.75*** [a]	**n/a**	**n/a**	
			Cross border 56/49	**MA**	**(−1, 0)** **(−2, +2)** **(−40, +0)** **(−60, +60)**	**n/a**	**+2.38** [a] **+3.09** [a] **+1.48** **-0.41**	**n/a**	**+11.25** [a] **+13.51** [a] **+19.81** [a] **+19.49** [a]	***All share 33/30***	***+0.98*** [a] ***+2.57*** [a] ***+5.15*** [b] ***+2.46***	***+6.65*** [a] ***+11.38*** [a] ***+12.23*** [a] ***+12.89*** [a]	**n/a**	**n/a**	
			All 142/136	***MA***	***(−1, 0)*** ***(−2, +2)*** ***(−40, +0)*** ***(−60, +60)***	***n/a***	***+0.70*** [a] ***+1.18*** [a] ***+0.40*** ***-0.48***	***n/a***	***+9.01*** [a] ***+12.96*** [a] ***+23.10*** [a] ***+21.66*** [a]	***All mixed 23/18***	***+0.13*** ***+0.22*** ***-0.20*** ***-1.39***	***+5.25*** [a] ***+13.24*** [a] ***+16.81*** [a] ***+5.66***	**n/a**	**n/a**	
Higgins and Beckman (2006), Japan	**1990-00**	**MM**	**152** **D85** **F67**	**DA 85**	**(-20,+20)**	**-0.25**	**+4.73** [b]	**n/a**	**n/a**	**(-20,-1)**	**+2.59** [a]	**n/a**	**n/a**	**n/a**	Not significant for cross border
Kiymaz and Baker (2008), US	**1989-03**	**MM**	**869/795**	**MA**	(−1, 0) (-10,+10)	**-0.49** [a]	**-0.82** [a] **-1.45** [a]	**+5.10** [a]	**+12.55** [a] **+15.71** [a]	**(−30, -1)** **(+1, +30)**	**-0.88** [c]	**+11.45** [a]	**-1.29** [b]	**+0.74** [b]	

Table 2.1 (continued)

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR%	
Panel A: Developed Markets' Evidences															
Martynova and Renneboog (2011) Europe	1993-01	MM	2109/760	All MA	(-1,+1) (−5, +5) (-60,+60)	+0.53 [a]	+0.72 [a] +0.79 [a] -2.83 [b]	+9.13 [a]	+12.47 [a] +15.83 [a] +26.70 [a]	(-40,-1)	+0.39	+11.49 [a]	n/a	n/a	
			754/405	Cash	(-1,+1) (−5, +5) (-60,+60)	+0.55 [a]	+0.80 [a] +1.03 [a] -0.90	+11.55 [a]	+15.67 [a] +20.17 [a] +32.78 [a]	(-40,-1)	+0.72	+13.92 [a]	n/a	n/a	
			284/185	Share	(-1,+1) (−5, +5) (-60,+60)	+0.04	+0.12 +0.66 -2.16	+7.29 [a]	+9.22 [a] +11.10 [a] +18.16 [a]	(-40,-1)	+2.66 [c]	+7.39 [a]	n/a	n/a	
			412/92	Mixed	(-1,+1) (−5, +5) (-60,+60)	+0.87 [a]	+1.17 [a] +1.03 [c] -2.82	+10.06 [a]	+14.29 [a] +17.48 [a] +35.54 [a]	(-60,-1)	+0.01	+13.42 [a]	n/a	n/a	
Subeniotis, Kroustalis, Tampakoudis, and Poulios (2011), US	2005	MM	134	MA	n/a	+0.52	n/a	+11.99 [a]	n/a	n/a	n/a	n/a	n/a	n/a	Acquirer AR (-10 to -1) significant negative (9 days at 1% and -5day at 10).
Borges and Gairifo (2013), 4 Euronext Markets	2001-07	MM	464	A	(-60,+10)	n/a	n/a	+11.09 [a]	+19.11 [a]	(-60,-2) (-60,-3) (-60,-9)	n/a	+4.31 [a] +3.98 [b] +2.71 [c]	n/a	n/a	
Gregory and O'Donohoe (2014), UK	1990-05	MAR	Full 288 Domestic 169 Foreign 119	A	(−2, +2)	n/a	-1.07 [a] -1.30 [a] -0.75	n/a	+20.69 [a] +19.5 [a] +22.84 [a]	n/a	n/a	n/a	n/a	n/a	
Favato, Nurullah, and Cottingham (2015), US	2012-14	MM	90	A	(-1,+1) (−10, +10)	+0.54 [a]	+1.92 [a] +2.06 [b]	n/a	n/a	(−10, -1) (+1, +10)	+2.47 [a]	n/a	-0.95	n/a	AAR significant positive (From day -3 to day 0) ranging from +054% to +1.45%
			Cash 44 C+S 46	A	(-1,+1) (−10, +10)	n/a	+2.57 [a] +1.25 +1.28 [a] +2.83 [b]	n/a	n/a	(−10, -1) (+1, +10)	+1.11 +3.77 [a]	n/a	-0.86 -1.04	n/a	

Table 2.1 (continued)

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR%	
Panel B: Developing Markets' Evidence															
Bellamy and Lewin (1992), Australia	**1980-88**	**MAR**	**210/120 81 52**	**A Cash Share**	**(−10, +10)**	**-0.285 +0.03 -2.97 [a]**	**1.61 0.84 0.45**	**6.43 [b]**	**25.63***	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	cash offers will be associated with positive abnormal returns
Agarwal and Singh, (2006), India	**1996-99**	**MM**	**67**	**M**	**(0,+1)**	**n/a**	**n/a**	**n/a**	**4.72 [a]**	**(-10,-1) (-20,-1)**	**n/a**	**+10.97 [a] +14.50 [a]**	**n/a**	**n/a**	
Wong and Cheung (2009), Asian markets[11]	**2000-07**	**MM**	**Hong Kong China Taiwan Singapore Japan S. Korea All 658**	**M&A**	**(-1,0)**	**n/a**	**-0.33 -1.5 -0.55[c] +0.5 [a] +0.25 -1.13 All -0.38**	**n/a**	**All -0.24**	**(-50,-2) (+1,50)**	**+4.5 [a] -3.3 +4.7[b] +6.9 [a] +8.2 [a] -6.18 All +2.72[c]**	**All -2.5**	**-11 [a] +11 +5[a] +8 [a] +4 [a] +43 [a] All +2.12 [a]**	**All -5.2**	Takeover is not considered as good news for shareholders of target firms, as opposed to that of bidding firms
Ma, Pagán, and Chu (2009) Ten Asian markets[12]	**2000-05**	**MM**	**1477**	**M&A**	**(0,1) (-1,+1) (-2,+2)**	**+0.43 [a]**	**+0.96 [a] +1.28 [a] +1.70 [a]**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
Sehgal, Banerjee, and Deisting (2012), BRICKS[13]	**2005-09**	**MM**	**109**	**M&A**	**(-1,+1)**	**+0. 86**	**+1.9**	**n/a**	**n/a**	**(-20,-1) (+1+20)**	**+2.07 [b]**	**n/a**	**-1.72 [b]**		Significant Positive pre-event CAAR as well as post-event CAAR
				Cash Share Max	**(-1,+1)**	**+1.66 +0.8 +5.27**	**+3.05 +2.38 +9.94**	**n/a**	**n/a**	**(-20,-1) (+1+20)**	**-0.35 +1.81 [b] +6.82 [b]**	**n/a**	**-1.59 [b] +1,22 [b] +0.18**		
			117	**Cross-Border**	**(−3, +3) (−4, +4) (−5, +5) (−8, +8)**	**n/a**	**+0.68 [b] +0.88 [b] +0.92 [a] +0.99 [c]**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	

[11] China, Japan, Taiwan, Korea, Singapore, Hong Kong

[12] China, India, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand.

[13] Brazil, Russia, India, China, South Korea and South Africa.

Table 2.1 (continued)

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR%	
Panel B: Developing Markets' Evidence															
Rani, Yadav, and Jain (2013), India	2003-08	MM	623	A	(−1, 0) (-1,+1) (−2, +2) (−5, +5) (−10, +10)	AR +0.92 [b] PWAAR +0.87	+1.02 [b] +1.12 [b] +2.07 [b] +2.00 [b] +0.77 [a]	n/a	n/a	(-20,-2) (+20,+2)	+1.20 [a]	n/a	-2.26[a]	n/a	
Bhabra and Huang (2013), China							Payment method				Cash		share		
	1997-07	MM	108 C 55 S 15	MA	(−1, 0) (0, +1) (-1,+1) (−2, +2) (−42, -1)	n/a	+0.58 [a] +0.54 [c] +1.11 [a] +1.08 [a] -0.18	n/a	n/a	(−1, 0) (0, +1) (-1,+1) (−2, +2) (−42, -1)	+1.58 [a] +1.91 [a] +2.25 [a] +2.37 [a] -2.78 [c]	n/a	-2.21 -3.16 -2.47 -2.20 -0.12	n/a	
Shah and Arora (2014), Asia-Pacific	May 2013 – Sep 2013	MAR	37	MA	(−2, +2) (−5, +5) (−7, +7) (−10, +10)	n/a	+1.2 +1.7 +2.3 +2.5	n/a	+9.5 [a] +10 [b] +16.1 [b] +14.6 [b]	n/a	n/a	n/a	n/a	n/a	
Svetlana and Roman (2014), BRICS[14]	2000-12	MM	(short-term) 247	MA Domestic	(-1,+1) (−2, +2) (−3, +3) (−4, +4) (−5, +5) (−10, +10) (−20, +20)	n/a	+0.84 [a] +1.12 [a] +0.97 [a] +0.94 [a] +0.53 [b] +0.86 [c] +1.62 [b]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			117	Cross-Border	(−3, +3) (−4, +4) (−5, +5) (−8, +8)	n/a	+0.68 [b] +0.88 [b] +0.92 [a] +0.99 [c]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

[14] Brazil, Russia, India, China, and South Africa.

Table 2.1 (continued)

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR%	
Jain and Sunderman (2014), India	**1996-10**	MM	**831**	**M all Recession Booming**	**(-30,+10)**	**n/a**	**n/a**	**+3.81** [a] **+2.01** [a] **+0.90**[b]	**+25.36*** **+27.20*** **+9.19***	**CAR (-30,-3)**	**n/a**	**+16.71*** **+22.18*** **+7.86***	**n/a**	**n/a**	
Panel C: : Malaysian Market Evidence															
Mat Noor (1992)	**1977-89**	**MM**	293/45	**A**	**(−1, 0)** **(-1,+1)** **(−2, +2)** **(−5, +5)** **(−10, +10)** **(-20,+20)**	**+0.76** [b]	**+1.17** [a] **+0.95** [a] **+1.4 1**[b] **+0.86** **+2.14** [c] **+3.61** [c]	**+0.28**	**+2.16** [a] **+2.30**[b] **+2. 51**[b] **+0.99** **+6.11** [b] **+7.87** [b]	**(+1,+5)** **(+1,+10)** **(+1,+20)** **(+1,+30)**	**n/a**	**n/a**	**-1.81** [a] **-1.91**[b] **-2.78** [b] **-3.22** [c]	**-2.70** [b] **-2.23**[c] **-5.13** [b] **-7.43** [b]	
Isa and Lee (2007)	**2000-05**	**MM**	154/37 124/25 30/12	**A**	**All Cash Share/**	**+0.98** [a] **+1.12**[a] **+0.79**[c]	**n/a**	**+4.39** [a] **+5.23**[a] **+3.36**[a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
								Acquirer							
Isa and Lee (2011)	**2000-05**	**MM**	139	**A**	**(-1,+1)** **(−5, +5)** **(-20,+20)** **(-30,+30)**	**+1.03** [a]	**+1.48** [b] **+0.85** [c] **+1.57** **+2.64**	**Cash**	**Share**	**(-30,-2) (+2,+30)**	**+1.03**	**n/a**	**+0.13**	**n/a**	
			107	A Private target	**(-1,+1)** **(−5, +5)** **(-30,+30)**	**n/a**	**+1.24** [a] **-0.07** [c] **+0.5**	**+1.02** [b] **-0.27** [c] **+0.89**	**+1.98** **-0.29** **-5.50**	**(-30,-2) (+2,+30)**	**-0.57**	**n/a**	**-0.18**	**n/a**	
			32	A Public target	**(-1,+1)** **(−5, +5)** **(-30,+30)**	**n/a**	**+2.20** [b] **+2.55** **+4.53**	**+2.70** [b] **+4.82** **+7.79**	**+0.78** [b] **-0.08** **+3.10**	**(-30,-2) (+2,+30)**	**+2.91**	**n/a**	**-0.58**	**n/a**	

Table 2.1 (continued)

Summary of studies on bidder and target firms reaction to M&A announcement: Developed markets and developing markets' evidence

Author, Year and Country	Period of Study	Model of Return	Sample Size A/T	Types of M&A	Event windows	Acquirer		Target		Event windows	Per-event return		Post-event return		note
					Day	Event day AR%	CAAR%	Event day AR%	CAAR%	Day	Acquirer CAAR%	Target CAAR%	Acquirer CAAR%	Target CAAR %	
Panel C: : Malaysian Market Evidence															
Rahim and Pok (2013)	**2001-09**	**MM**	**196/180**	MA	**(−1, 0)** **(-2,+2)** **(−30, +30)** **(−40, +0)** **(−60, +60)**	**n/a**	**+0.24** [b] **+0.34** [b] **+1.35** [a] **+194** [a] **+1.38** [c]	**n/a**	**+1.35** [a] **+2.59** [a] **+5.14** [a] **+4.97** [a] **+4.84** [a]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	Target shareholders earned significantly higher CAARs than bidding shareholders.
			113/104	Cash	**(−1, 0)** **(-2,+2)** **(−30, +30)** **(−40, +0)** **(−60, +60**	**n/a**	**+0.19** **+0.05** **+1.65** [b] **+1.97** [a] **+1.97** [c]	**n/a**	**+1.83** [a] **+3.73** [a] **+5.45** [a] **+4.33** [a] **+5.36** [c]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
			15/14	Share	**(−1, 0)** **(-2,+2)** **(−30, +30)** **(−40, +0)** **(−60, +60**	**n/a**	**+0.264** [c] **+0.90** **+2.09** **+4.124** [b] **-0.39**	**n/a**	**+0.92** [b] **+1.09** **+7.94** [a] **+10.0** [a] **+8.88** [c]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	
			12/11	Mixed	**(−1, 0)** **(-2,+2)** **(−30, +30)** **(−40, +0)** **(−60, +60**	**n/a**	**+0.57** **+0.56** **+2.94** **+2.67** **+2.09**	**n/a**	**+1.42** [b] **+2.91** [b] **+3.87** **+6.33** [a] **+2.68**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	

CHAPTER 3
METHODOLOGY

3.1 Introduction

This paper uses event study methodology to examine stock price reaction to the M&A announcements for the bidding and the target firms. Section 3.2 talks about data sources and collecting process. Section 3.3 describes development of hypotheses and section 3.4 describes the method which is used in this study.

3.2 Data Sources and Sample Description

This study is based on the M&As of companies listed on the Bursa Malaysia (Main Market) during the period from January 2011 to June 2015. The data was collected from Thomson SDC platinum M&As Database. The first M&A announcement dates were verified from the archives of corporate announcements on the Bursa Malaysia website. Daily stock closing prices and the market indices, namely FTSE Bursa Malaysia Kuala Lumpur Composite Index (FBMKLCI) and FTSE Bursa Malaysia EMAS Index (FBMEMAS), were obtained from DataStream.

- **Sample Selection**

All M&A transactions are subject to these conditions:

- The first mergers and acquisitions announced between 1 January 2011 and 30 June 2015 by public limited companies on Bursa Malaysia- Main Market.
- Firms that have unique capital structure, for example firms from the financial sector, are not included in the sample.

- Firms that were suspended during the estimation period or around announcement period are excluded from the sample.
- Public holidays during the estimation period and the event period are excluded from the time-series data. The final sample was 59 target firms and 26 bidding firms as shown in Table 3.1 and Table 3.2 (See appendix 2: announcements list).

Table 3.1
M&As announcements during Jan 2011 to Jun 2015

	2011		2012		2013		2014		2015 until Jun		Total	
	Bidder	Target	Bidder	Target	Bidder	Target	Bidder	Target	Bidder	Target	Bidder	Target
Verified Announcements	34		23		22		16		8		104	
Number of firms	11	31	6	20	5	20	3	16	4	8	29	96
Number of firms with supination	2	15	1	7	-	8	-	4	-	2	3	36
Selected in Sample	9	16	5	13	5	12	3	12	4	6	26	59

Table 3.2
M&As by payment method and parties' status

Target Firm					
Payment	N	%	Acquirer/target status	N	%
Cash	54	91.5%	Public	16	27%
Other[15]	5	8.5%	Private	36	61%
			Investor	7	12%
Total	59	100%		59	100%
Bidding Firm					
Cash	21	81%	Public	22	85%
Other	5	19%	Private	4	15%
Total	26	100%		26	100%

[15] Other: refer to payment offers that use share financing and mixed financing due to their limited number in the sample, they are grouped together.

- **Estimation Period**

This study applied two different estimation periods: (i) following Rani, Yadav, and Jain (2013), the estimation period for bidding firms of 255 days (-280 t0 -26) before the event period; and (ii) following Borges and Gairifo (2013), the estimation period for target firms of 188 days (-250 to -61). Using two different estimation periods better than using the same estimation period for bidder and target firms in terms of accuracy when the study focuses more on the returns to bidding firms or the returns to target firms (See Appendix 1 and 3).

- **Event Day**

This study following the majority of empirical studies that chose the announcement day as the event day because this is when the stock price adjusts to incorporate the new information, assuming financial market is efficient to reflect the probability of the success of the M&A. In this case, the event date is on the day which the M&A is announced and available on the Bursa Malaysia website. This study does not distinguish between clean announcement and contaminated announcement.

- **Event Period and Multi-day windows**

Like Rani et al. (2013), the event period for the acquirer firm is 41 days (-20 to +20) include the announcement day. The target firm's event period is 71 days (-60 to +10) following Borges and Gairifo (2013) and to ease the comparison, 10 days was added to the past event to be 81 days (-60 to + 20).

Multi-day windows pre-announcement, around-announcement and post-announcement day shown in as follows:

Table 3.3
Multi-day windows around, pre and post the announcement day

Pre-announcement windows	around-announcement windows	Post-announcement windows
-60 to -3	-1 to +1	+3 to +20
-20 to -3	-2 to +2	+3 to +10
-10 to -2	-5 to +5	+2 to +10
-10 to -3	-10 to +10	
	-20 to + 20	

- **Market Benchmark**

This study uses two market benchmarks to determine market returns: FBMKLCI[16] and FBMEMAS[17]. Brown and Warner (1985) documented that characteristics of daily returns affect event study methodology due to using various benchmarks or models of returns. This is one of the reasons for using two benchmarks and two models to estimate the abnormal returns in this study.

3.3 Development of Hypotheses

This section provides the hypotheses for this study. Past studies on M&As have different views about the reaction to stock price and M&A announcements.

[16] The FTSE Bursa Malaysia KLCI comprises the largest 30 companies listed on the Main Board by full market capitalization that meet the eligibility requirements of the FTSE Bursa Malaysia Ground Rules.

[17] FTSE Bursa Malaysia EMAS Index comprises the constituents of the FTSE Bursa Malaysia Top 100 Index and FTSE Bursa Malaysia Small Cap Index.

First, empirical evidence show that target firms behave positively toward M&A announcements. Empirical evidence of bidding firms show mixed result about positive and negative reaction to stock price of bidding firms and M&A announcements where the majority of M&A studies show positive reaction to bidding firms. Based on empirical evidence, therefore, it is hypothesized:

H_1: The abnormal returns surrounding the announcement date are statistically significantly different from zero for bidding and target firms.

Second, there is a lack of empirical evidence related to pre-event and post-event ARs. The empirical evidence of M&A suggest that significant pre-event return to bidding and target firms (Asquith, 1983; Borges & Gairifo, 2013; Favato et al., 2015; Higgins & Beckman, 2006; Martynova & Renneboog, 2011). Evidence related to post-event ARs show mixed results and tend to be insignificant post-event abnormal ARs. Based on that, therefore, it is hypothesized:

H_2: The pre-announcement abnormal returns of bidding and target firms are statistically significantly and different from zero.

H_3: The post-announcement abnormal returns of bidding and target firms are statistically significantly and different from zero.

3.4 Methodology

This study uses event study to assess the reaction of stock prices of bidding and target firms to the announcement of M&As (Asquith, 1983; Brown & Warner, 1985; Dodd, 1980). Specifically, the goals of the study are to determine if statistically significant evidence of ARs are present close to the dates of M&A news disclosure to the market, and whether these abnormal returns accumulate or are readily absorbed by the market, measured to see if pre-event returns and post-event returns are statistically significant, and payment method influences returns from M&A announcements.

This method requires eight steps (Seiler, 2004):

1. Identification of the event date.
2. Definition of the event window.
3. Definition of the estimation period.
4. Selection of the sample.
5. Calculation of normal returns.
6. Calculation of average ARs.
7. Calculation of CAARs
8. Determination of the statistical significance of the ARs and CAARs.

This paper uses the following two different methods to estimate acquiring and target firms' ARs (AR_{jt}): (1) Market adjusted returns model (MARs) (2); and Market model (MM).

The normal returns are calculated as follow:

$$R_{jt} = LN(\frac{P_{jt}}{P_{jt-1}}) \quad (1)$$

$$R_{mt} = LN(\frac{P_{mt}}{P_{mt-1}}) \quad (2)$$

Where:

R_{jt}	= the normal return for firm *j* on day *t*;
LN (P_{jt}/P_{jt-1})	= the natural log of stock price for firm *j* on day *t* divided by the stock price for firm *j* on the day before;
R_{mt}	= the normal return for market index *m* on day *t*;
LN (P_{mt}/P_{mt-1})	= the natural log of market index price *m* on day *t* divided with the market index price *m* on the day before.

3.4.1 Abnormal Returns

1) The *Market Adjusted Returns* (MARs) Model assumes that prior expected returns are the same for all companies and equal in any period to the expected returns of the market index (Strong, 1992).

$$E(R_{jt}) = E(R_{mt}) \quad (3)$$

Where: $E(R_{jt})$ = expected return for firm *j* on day t;

$E(R_{mt})$ = expected return for market index *m* on day t.

The AR_{jt} is then calculated as follows:

$$AR_{jt} = R_{jt} - R_{mt} \quad (4)$$

Where: AR_{jt} = abnormal return for firm *j* on day *t*;

R_{jt} = return for firm *j* on day *t*;

R_{mt} = return for market index *m* on day *t*.

2) The *Market Model* (MM) has been used by many of event studies. The MM assumes that stock returns are specified by the following ordinary least squares (LOS) equation:

$$R_{jt} = \alpha + \beta R_{mt} + \varepsilon_{jt} \qquad (5)$$

Where: R_{jt} = normal return for firm *j* on day *t*;

R_{mt} = return for market index *m* on day *t;*

ε_{jt} = error term for company *j* at time *t*.

The coefficients α_j and β_j are the OLS parameters of the intercept and slope, respectively, for firm *j*.

The AR_{jt} is then calculated as follows:

$$AR_{jt} = R_{jt} - (\hat{\alpha} + \hat{\beta}\, R_{m,t}) \qquad (6)$$

Where: AR_{jt} = abnormal return for firm *j* on day *t*;

R_{jt} = normal return for firm *j* on day *t*;

$R_{m,t}$ = return for market index *m* on day *t* (*t* =estimation period*);*

α_j = estimate of OLS parameter of intercept;

β_j = estimate of OLS parameter of slope;

t = the event period.

3.4.2 The Average Abnormal Returns (AARs)

The AARs is calculated as average for each day of event period, in order to obtain AARs the equation below is used.

$$AAR_t = \frac{1}{N}\sum_{j=1}^{N} AR_{jt} \qquad (7)$$

Where: AR_{jt} = abnormal return for firm *j* on day *t*;

N = number of firms in the sample.

3.4.3 The Cumulative Average Abnormal Returns (CAARs)

The CAARs are daily abnormal returns cumulated for N firms over part of the event period, over a period of two or more trading days beginning with day T1 and ending with day T2.

$$CAR_{T1,T2} = \sum_{T1}^{T2} AAR_t \qquad (8)$$

$$CAAR_{T1,T2} = \frac{1}{N} \sum_{j=1}^{N} \sum_{t=T1}^{T2} AR_{jt} \qquad (9)$$

Where: AR_{jt} = abnormal return for firm *j* on day *t*;

CAR = cumulative abnormal return

T1,T2 = accumulation period;

N = number of firms in the sample.

The cumulative market adjusted abnormal return (CMAR):

$$CMAR = \sum_{T1}^{T2} \frac{1}{N} \sum_{j=1}^{N} AR_{jt} \qquad (10)$$

Where: AR_{jt} = abnormal return for firm *j* on day *t* based on equation 4.

3.4.4 Statistical Testing

There are several statistical tests used by the M&A's empirical studies to assess the significance level of the daily ARs and the cumulated abnormal returns. The "no dependence adjustment'' method is used to assess the significance of measured ARs (Brown & Warner, 1980, 1985). It assumes that mean day *t* or mean period [t; T] returns are equal to zero and security ARs are uncorrelated. Another method, called standardized residual method, has been used by many studies, the method is based on the standard deviation of average residual being estimated from the AARs over the estimation period. Standardized residual method has some advantages and is more powerful; also, it helps to avoid the potential problem of cross-sectional correlation of security returns (Boehmer, 1991; Rani et al., 2013). Both of these statistical hypothesis say that there is no abnormal return for bidding firm as well as target firm in the event period. So, this study was the time series standardized cross-sectional test and the traditional test - a two tailed t-test to determine whether AARs or CAARs significantly deviate from 0.

1) Standardized Cross-Sectional test

The standardized abnormal return (SAR) for firm *j* on day *t* are calculated as below (Boehmer, 1991; Rahim & Pok, 2013) :

$$SAR_{jt} = \frac{AR_{jt}}{\sqrt{S^2(AR_i)}} \qquad (11)$$

Where:

$$S^2(AR_j) = \left[\frac{1}{(K_1-K_0-2)}\sum_{k=K_0}^{k=K_1}(AR_{jk} - \overline{AR})^2\right] \times \left[1 + \frac{1}{(K_1-K_0)} + \frac{(R_{mt}-\bar{R}_{mk})^2}{\sum_{K_0}^{K_1}(R_{mk}-\bar{R}_{mk})^2}\right] \quad (12)$$

AR_{jt}	= abnormal return for firm *j* on day *t*;
AR_{jk}	= abnormal return for firm *j* on day *k:*
(K1_K0)	= the number of observed trading days returns for firm j over the estimation period;
$\overline{AR}$	= mean of AR during estimation period;
t	= day *t* in event period;
k	= day *k* in estimation period;
R_m	= return to market.

The standardized average abnormal return (SAAR) can calculate by the following equation:

$$SAAR_t = \frac{1}{N}\sum_{t=1}^{N} SAR_{jt} \quad (13)$$

Where: *N* = number of firms in the sample.

The T-statistic for SAAR

$$T_{AR} = \sqrt{N} * (SAAR_t) \quad (14)$$

The standardized cumulative abnormal returns (SCAR) for N firms over event window L can be obtained as follows:

$$SCAR_j^L = \sum_{t=1}^{L} SAR_j^L \quad (15)$$

The average SCAR can be calculated as follows:

$$\overline{SCAR^L} = \frac{1}{N}\sum_{t=1}^{N}\frac{SCAR_j^L}{\sqrt{L}} \qquad (16)$$

The T-statistic for CAAR for L event period

$$t_{CAR} = \sqrt{N}\,\overline{SCAR^L} \qquad (17)$$

2) The traditional residual test (no dependence adjustment)

To test if the AARs significant (for MM and MAR) the equation bellow is used (Brown & Warner, 1980):

$$t = \sum_{t=1}^{L} AAR_t \div \sqrt{S^2(\sum_{t=1}^{L}\overline{AR_t})} \qquad (18)$$

Where:

$$S^2(\sum_{t=1}^{L}\overline{AR_t}) = \sum_{t=1}^{L} S^2\,\overline{AR_t} \qquad (19)$$

Where:

$$S^2\overline{AR_t} = \frac{1}{N}\sum_{t=1}^{N}\sigma^2 \qquad (20)$$

Where σ^2 is the residual variance from the MM'S regression.

Cumulative abnormal returns from MAR are tested by the following t-statistic:

$$t = \frac{CMAR}{S_t/\sqrt{N}} \qquad (21)$$

Where: *S* = standard deviation for the ARs in day *t* on the event window by Excel.

N = number of firms in the sample.

3.5 Summary

This study is used event-study methodology to assess the market reaction of stock prices Malaysian bidding and target firms to M&A announcements. There are a several studies that were applied this methodology since the 1980s to analyze stock price reaction to some events such as release financial reports, change in firm's board, and dividends. This study are applied two models (Market Model and Market Adjusted Returns) to derive the abnormal returns. Two statistical tests are used in this study to classify the significance of the outcomes.

CHAPTER 4
EMPIRICAL FINDINGS

4.1 Introduction

This chapter discusses the empirical results of the impact of Malaysian M&As on stock prices as well as the impact of the payment method associated with the M&As. As mentioned in chapter 3, this study uses two models, market model (MM) and market adjusted returns (MARs) model, to examine the existence of ARs in Malaysian M&As. The two models are benchmarked against two different benchmarks namely the FBMKLCI and FBMEMAS. Section 4.2 reports the findings of the target firms and section 4.3 reports the findings of the bidding firms. Section 4.4 provides the summary of this chapter.

4.2 Abnormal Returns of Target Firms

Table 4.1 and Table 4.2 present the two models' ARs of target firms based on FBMKLCI and FBMEMAS as benchmarks for the four- and a half year period covered by this study, from January 2011 to June 2015. The Tables show very clearly that the target firms gain from M&A activities in the Malaysian market. Announcement day's findings report significantly positive ARs in the two benchmarks by the two models; ARs from MM are +3.24% and +3.30% for FBMKLCI and FBMEMAS, respectively; while ARs from MARs model are +3.14% and +3.17% for FBMKLCI and FBMEMAS, respectively. It is clear that the ARs generated by the MM with FBMEMAS are the highest compared to the MMARs model with FBMKLCI and the MAAR with both FBMKLCI and FBMEMAS. The MM cumulative abnormal returns (CARs) from day 60 before the announcement until

the announcement day is 11.53% based on FBMKLCI and 12.33% based on FBMEMAS, both are significantly positive. Target firms during the 81 days covered the event period (-60 to +20) can gain significantly positive CARs up to 19.7% in FBMEMAS and 18.19% in FBMKLCI based on MM.

Table 4.1

Daily AR and CAR values for target firms based on FBMKLCI as benchmark

Calculation based on MM							Calculation based on MAR		
t	**AR (%)**	t-value(A)	t-value(B)	**CAR (%)**	t-value(A)	t-value(B)	**AR (%)**	t-value(A)	**CAR (%)**
-60	0.40	0.90	1.104	0.40	0.90	1.104	0.42	0.895	0.42
-40	-0.10	-0.16	0.409	1.20	0.56	1.234	-0.06	0.023	1..38
-20	0.30	0.71	-0.297	3.90	1.38	2.195*	0.37	0.803	4.18
-10	0.84	1.90	1.907	5.21	1.66	2.607*	0.82	1.358	5.45
-9	0.78	1.76	1.272	5.99	1.89	2.785**	0.70	1.081	6.15
-8	0.09	0.30	-0.805	6.08	1.90	2.621*	0.11	0.226	6.26
-7	-0.22	-0.51	0.233	5.85	1.81	2.629*	-0.30	-0.846	5.96
-6	0.85	1.92	3.625**	6.70	2.05*	3.094**	0.77	2.119*	6.73
-5	-0.28	-0.63	-0.197	6.43	1.95	3.004**	-0.39	-1.017	6.34
-4	0.72	1.63	3.269*	7.14	2.15*	3.456**	0.80	2.177*	7.14
-3	-0.02	-0.04	0.500	7.12	2.12*	3.482**	0.09	0.323	7.23
-2	0.87	1.97	2.361*	8.00	2.36*	3.759**	0.95	2.263*	8.18
-1	0.29	0.67	1.318	8.29	2.43*	3.898**	0.25	0.389	8.43
0	**3.24**	**7.35****	**9.11****	**11.53**	**3.35****	**5.032****	**3.14**	**2.647***	**11.57**
1	**4.67**	**10.60***	**14.90***	**16.20**	**4.67****	**6.884****	**4.62**	**3.911***	**16.20**
2	-0.15	-0.35	-1.335	16.05	4.59**	6.661**	-0.16	-0.469	16.03
3	0.63	1.43	0.431	16.68	4.73**	6.663**	0.72	0.873	16.75
4	0.52	1.18	0.655	17.19	4.83**	6.693**	0.55	1.312	17.30
5	0.17	0.38	0.459	17.36	4.85**	6.700**	0.19	0.818	17.49
6	0.82	1.86	1.490	18.18	5.04**	6.830**	0.95	1.388	18.44
7	-0.17	-0.38	-0.449	18.02	4.96**	6.725**	-0.10	-0.3677	18.34
8	-0.00	-0.01	-0.263	18.01	4.92**	6.645**	0.04	0.132	18.38
9	0.21	0.468	0.661	18.23	4.95**	6.676**	0.22	1.165	18.60
10	-0.17	-0.38	0.058	18.06	4.87**	6.636**	-0.08	-0134	18.52
20	0.37	0.90	0.912	18.19	4.76**	6.482**	0.34	1.301	19.49
Observation			59				59		

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value(B): based on standardized cross-sectional test

However, the findings under the two models show significantly positive returns to target firms on the announcement day. Regarding the results under the two benchmarks, the ARs

are higher for FBMEMAS. Also, the two statistic tests look higher for the FBMEMAS's findings compared to the outcomes from FBMKLCI.

Table 4.2
Daily AR and CAR values for target firms based on FBMEMAS as benchmark

	Calculation based on MM						Calculation based on MAR		
t	**AR (%)**	t-value(A)	t-value (B)	**CAR (%)**	t-value(A)	t-value(B)	**AR (%)**	t-value (A)	**CAR (%)**
-60	0.41	0.936	1.212	0.41	0.936	1.212	0.42	0.882	0.42
-40	-0.07	-0.161	0.365	1.24	0.617	1.256	-0.07	-0.195	1.34
-20	0.34	0.773	-0.299	4.21	1.501	2.331*	0.39	0.848	4.10
-10	0.85	1.944	1.988	5.71	1.823	2.839**	0.81	1.350	5.37
-9	0.81	1.842	1.312	6.51	2.061*	2.994**	0.70	1.086	6.07
-8	0.10	0.239	-0.787	6.62	2.074*	2.857**	0.12	0.247	6.19
-7	-0.18	-0.403	0.315	6.44	2.00*	2.759**	-0.31	-0.863	5.88
-6	0.85	1.933	3.653**	7.29	2.242*	3.340**	0.76	2.061*	6.64
-5	-0.19	-0.440	0.002	7.10	2.167*	3.311**	-0.40	-1.035	6.24
-4	0.70	1.590	3.246**	7.80	2.354*	3.712**	0.79	2.181*	7.03
-3	0.00	0.021	0.543	7.80	2.337*	3.751**	0.11	0.376	7.14
-2	0.88	2.002*	2.368*	8.68	2.578*	4.027**	0.96	2.279*	8.09
-1	0.35	0.803	1.470	9.03	2.660**	4.183**	0.28	0.432	8.37
0	**3.30**	**7.511****	**9.34****	**12.33**	**3.60****	**5.344****	**3.17**	**2.678****	**11.54**
1	**4.70**	**10.72****	**15.05****	**17.03**	**4.930****	**7.213****	**4.62**	**3.893****	**16.16**
2	-0.16	-0.372	-1.381	16.86	4.846**	6.981**	-0.16	-0.451	16.00
3	0.55	1.263	0.242	17.42	4.966**	6.957**	0.68	0.829	16.68
4	0.48	1.099	0.580	17.90	5.064**	6.975**	0.54	1.300	17.22
5	0.16	0.364	0.461	18.06	5.070**	6.979**	0.19	0.804	17.41
6	0.77	1.748	1.368	18.82	5.246**	7.094**	0.93	1.354	18.33
7	-0.17	-0.388	-0.467	18.65	5.160**	6.984**	-0.09	-0.353	18.24
8	-0.01	-0.021	-0.254	18.64	5.120**	6.903**	0.05	0.158	18.28
9	0.23	0.523	0.745	18.87	5.146**	6.943**	0.22	1.198	18.51
10	-0.16	-0.364	0.100	18.71	5.066**	6.905**	-0.07	-0.117	18.44
20	0.38	0.882	0.971	19.70	4.993**	6.785**	0.33	1.288	19.47
Observation			59					59	

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value (B): based on standardized cross-sectional test.

Tables 4.3 and 4.4 show findings related to pre-announcement period, announcement period and post-announcement period. Statistically, based on MM, the four pre-announcement periods show positively significant CAARs for target firms in the two

benchmarks of FBMKLCI and FBMEMAS. The highest CAARs are generated by MM with FBMEMAS compared to those which are generated by MM with FBMKLCI.

Table 4.3
CAARs of target firms based on FBMKLCI as benchmark

	Calculation based on MM			Calculation based on MAR	
window	CAAR (%)	t-value(A)	t-value(B)	CAAR (%)	t-value(A)
Pre-event					
(-60;-3)	7.13	2.123*	3.482**	7.23	2.660**
(-20; -3)	3.54	1.895	2.867**	3.42	1.678
(-10;-2)	3.63	2.744**	4.055**	3.56	2.370*
(-10;-3)	2.76	2.212*	3.466**	2.60	1.682
At event					
(-1;+1)	8.92	10.75**	14.62**	8.01	5.552**
(-2;+2)	8.92	9.056**	11.79**	8.80	5.710**
(-5;+5)	10.66	7.298**	9.598**	10.76	4.595**
(-7;+7)	11.94	6.998**	9.391**	12.08	4.379**
(-10,+10)	13.69	6.782**	8.554**	13.89	4.216**
(-20;+20)	15.30	5.426**	6.875**	15.69	4.622**
Post-event					
(+3;+20)	2.84	1.521	1.317	3.46	1.894
(+3;+10)	2.02	1.618	1.075	2.48	1.136
(+2;+10)	1.86	1.409	0.569	2.32	1.003
Observations		59		59	

Table 4.4
CAARs of target firms based on FBMEMAS as benchmark

Pre-event					
(-60;-3)	7.80	2.337*	3.751**	7.14	2.619*
(-20; -3)	3.93	2.112*	3.161**	3.43	1.686
(-10;-2)	3.83	2.909**	4.214**	3.54	2.373*
(-10;-3)	2.95	2.387*	3.632**	2.58	1.684
At event					
(-1;+1)	8.35	10.99**	14.93**	8.06	5.571**
(-2;+2)	9.06	9.242**	12.01**	8.86	5.747**
(-5;+5)	10.77	7.406**	9.626**	10.77	4.609**
(-7;+7)	12.04	7.088**	9.501**	12.05	4.376**
(-10,+10)	13.86	6.899**	8.707**	13.88	4.209**
(-20;+20)	15.83	5.637**	7.170**	15.76	4.641**
Post-event					
(+3;+20)	2.84	1.526	1.332	3.47	1.904
(+3;+10)	1.85	1.493	0.981	2.44	1.117
(+2;+10)	1.69	1.526	0.465	2.23	0.989
Observations	59			59	

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value (B): based on standardized cross-sectional test.

The longer pre-event window (-60 to -3) reports CAARs of +7.13% and +7.80% in FBMKLCI and FBMEMAS respectively, which is the highest compared to the rest; the CAARs decline from the longer pre-event window to the shorter pre-event window which is (-10 to -3) with CAARs up to +2.76% and +2.95% from FBMKLCI and FBMEMAS, respectively. The MARs model's CAARs are significantly positive for two pre-event windows which are 58-day window (-60 to -3) and 9-days window (-10 to -2). Both report CAARs close to CAARs in the MM.

At-event, multi-day windows show significantly positive CAARs at the 1 % level for all the five windows under the two models and the two benchmarks. The shorter window (-1 to +1) shows CAARs ranging from +8.01% to +8.92%. The CAARs increase from the shorter window to the longer window to reach +15.83% in the 41-day window (-20 to +20). Post-event CAARs are statistically not significant under the two models and the two benchmarks.

Table 4.5 shows the CAARs for target firms based on acquirer status. The findings are calculated based on MM by using the two benchmarks. First: findings related to FBMKLCI - target firms that received proposals of M&A from individual investors can gain significant CAARs up to +11.96% in the 3-day window and +29.72% in the 21-day (-10 to +10) window. However, M&As proposed by investor generated the highest CAARs compared to M&As proposed by public and private acquirers; while target firms that received a proposal from public bidders gained the lowest CAARs, which are significantly positive at +6.82% of the 3-day window and +12.21% of the 41-day window.

Table 4.5
CAARs of target firms by acquirer status (Calculation based on MM)

	CAARs based on FBMKLCI			CAARs based on FBMEMAS		
window	**CAAR (%)**	t-value(A)	t-value(B)	**CAAR (%)**	t-value(A)	T-test(B)
Public Acquirer						
(-1;+1)	6.82	6.464**	10.32*	7.08	6.823**	10.66**
(-2;+2)	6.54	4.808**	7.091*	6.78	5.055**	7.345**
(-5;+5)	7.03	3.484**	5.159*	7.13	3.587**	5.261**
(-7;+7)	9.71	4.119**	5.987*	9.89	4.261**	6.117**
(-10,+10)	10.72	3.843**	5.358*	10.85	3.948**	5.467**
(-20;+20)	12.21	3.134**	4.254*	12.81	3.338**	4.445**
Observations	16			16		
Private Acquirer						
(-1;+1)	8.09	8.450**	10.46*	8.13	8.525**	10.60**
(-2;+2)	9.04	7.316**	8.923*	9.07	7.367**	8.999**
(-5;+5)	9.51	5.188**	6.892*	9.60	5.257**	6.991**
(-7;+7)	10.39	4.854**	6.596*	10.40	4.880**	6.639**
(-10,+10)	11.89	4.696**	5.892*	11.98	4.749**	5.989**
(-20;+20)	15.52	4.387**	5.248*	15.88	4.506**	5.465**
Observations	36			36		
Investor Acquirer						
(-1;+1)	11.96	3.557**	3.140*	12.35	3.675**	3.208*
(-2;+2)	13.73	3.16*	3.263*	14.24	3.283*	3.350*
(-5;+5)	24.89	3.864**	4.120**	25.11	3.902**	4.138**
(-7;+7)	25.02	3.326*	3.255*	25.32	3.370*	3.277*
(-10,+10)	29.72	3.340*	3.373*	30.42	3.422*	3.430*
(-20;+20)	21.25	1.709	1.628	22.43	1.806	1.701
Observations	7			7		

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value (B): based on standardized cross-sectional test.

Second, findings related to FBMEMAS - findings for target firms that received proposal from investors show the highest CAARs which are consistent with findings from FBMKLCI; CAARs up to +30.42% and +12.35% for the 41-day window and the 3-day window, respectively. M&A proposals by public has the lowest CAARs compared to the proposals by private firms or investors. Statistic tests report higher value in FBMEMAS compared to FBMKLCI.

4.3 Abnormal Returns of Bidding Firms

Table 4.6 shows the daily ARs for bidding firms during the event period based on FBMKLCI as a benchmark. Statistically, there are no significant ARs on day 0. Five days have significant ARs during the event period namely, day -5, day -4, day +1, day +6, and day +10. The highest positive ARs are on day -5 and the lowest negative ARs are on day -4. Outcomes from the two benchmarks do not show any significant CARs during the event period.

Table 4.6

Daily AR and CAR values for bidding firms based on FBMKLCI as a benchmark

	Calculation based on MM						Calculation based on MAR		
t	**AR (%)**	t-value(A)	t-value(B)	**CAR (%)**	t-value(A)	t-value(B)	**AR (%)**	t-value(A)	**CAR (%)**
-20	-0.19	-0.434	-0.664	-0.19	-0.434	-0.664	-0.13	-0.467	-0.13
-10	0.23	0.521	0.649	-0.69	-0.471	0.706	0.24	0.543	-0.59
-9	-0.22	-0.505	-1.014	0.91	-0.597	0.969	-0.23	-0.792	-0.82
-8	0.14	0.314	0.151	-0.77	-0.486	0.890	0.14	0.263	-0.68
-7	-0.17	-0.397	0.713	-0.95	-0.575	0.666	-0.19	-0.313	-0.86
-6	0.11	0.244	-0.370	-0.84	-0.491	0.739	0.10	0.360	-0.77
-5	1.84	4.171**	2.551*	1.00	0.566	0.078	1.84	1.603	1.07
-4	-1.33	-3.010**	-2.117*	-0.33	-0.180	0.589	-1.29	-1.759	-0.22
-3	0.77	1.755	1.149	0.47	0.239	0.302	0.80	0.914	0.58
-2	-0.31	-0.698	0.190	0.14	0.072	0.250	-0.24	-0.607	0.34
-1	0.52	1.176	1.303	0.66	0.333	0.048	0.44	0.993	0.78
0	**0.13**	**0.301**	**0.524**	**0.79**	**0.391**	**0.160**	**0.06**	**0.078**	**0.83**
1	**-0.98**	**-2.215***	**-2.680***	**-0.19**	**-0.090**	**0.414**	**-0.95**	**-1.586**	**-0.12**
2	-0.90	-2.050	-0.990	-1.09	-0.516	0.611	-0.84	-1.082	-0.94
3	0.55	1.239	0.572	-0.54	0.252	0.482	0.54	1.016	-0.40
4	-0.60	-1.365	-2.026	-1.15	-0.520	0.877	-0.55	-1.17	-0.95
5	0.17	0.377	0.090	-0.98	-0.436	0.842	0.18	0.285	-0.76
6	0.97	2.201*	2.471*	-0.01	-0.004	0.351	0.95	1.606	0.19
7	0.26	0.589	-0.237	0.25	0.107	0.390	0.26	0.483	0.45
8	-0.03	-0.073	-0.114	0.22	0.092	0.404	0.01	0.026	0.46
9	0.36	0.823	0.746	0.58	0.240	0.261	0.32	0.620	0.78
10	0.70	1.589	2.370*	1.28	0.522	0.169	0.78	1.423	1.56
20	-0.26	-0.584	0.484	0.42	0.148	0.198	-0.18	-0.633	1.34
Observation			26					26	

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value (B): based on standardized cross-sectional test

Table 4.7 shows the daily ARs and the CARs for bidding firms based on FBMEMAS as a benchmark. No significant ARs are observed on day 0. The ARs are statistically significant on nine days out of the 41 days, which are day -14, day -13, day -5, day -4, day 1, day 2, day 4, day 6 and day 10. The ARs are negative for five days while the rest of the four days report positive ARs. The highest significantly positive ARs reach +1.8% on day -5 and the lowest significantly negative ARs are -1.33% on day -4. ARs by using MARs model do not report any significant ARs during the event as well as CARs from the two models.

Table 4.7

AR and CAR values for bidding firms based on FBMEMAS as a benchmark

	Calculation based on MM						Calculation based on MAR		
t	**AR (%)**	T-value(A)	T-value(B)	**CAR (%)**	T-value(A)	T-value(B)	**AR (%)**	T-value(A)	**CAR (%)**
-20	-0.16	-0.363	-0.488	-0.16	-0.363	0.488	-0.08	-0.289	-0.08
-10	0.21	0.481	0.547	-0.60	-0.423	0.577	0.23	0.531	-0.49
-9	-0.24	-0.547	-1.057	-0.84	-0.554	0.857	-0.24	-0.868	-0.73
-8	0.14	0.319	0.145	-0.70	-0.443	0.784	0.11	0.224	-0.62
-7	-0.13	-0.302	0.263	-0.83	-0.508	0.551	-0.18	-0.299	-0.79
-6	0.12	0.284	-0.307	-0.70	-0.417	0.612	0.09	0.320	-0.71
-5	1.84	4.209**	2.500*	1.13	0.648	0.033	1.83	1.595	1.12
-4	-1.33	-3.046**	-2.214*	-0.20	-0.110	0.505	-1.29	-1.783	-0.17
-3	0.75	1.726	1.047	0.56	0.300	0.244	0.79	0.905	0.62
-2	-0.33	-0.749	0.132	0.23	0.120	0.207	-0.25	-0.644	0.34
-1	0.48	1.112	1.237	0.71	0.366	0.074	0.41	0.918	0.77
0	**0.18**	**0.409**	**0.654**	**0.89**	**0.446**	**0.215**	**0.06**	**0.080**	**0.83**
1	**-0.96**	**-2.206***	**-2.671***	**-0.07**	**-0.035**	**0.359**	**-0.93**	**-1.560**	**-0.10**
2	-0.90	-2.066*	-0.951	-0.97	-0.465	0.550	-0.84	-1.083	-0.94
3	0.47	1.076	0.364	-0.50	-0.235	0.464	0.47	0.887	-0.47
4	-0.61	-1.406	-2.096*	-1.12	-0.512	0.874	-0.57	-1.227	-1.04
5	0.16	0.359	0.687	-0.96	-0.431	0.843	0.17	0.266	-0.87
6	0.92	2.113*	2.383*	-0.04	-0.017	0.369	0.91	1.550	0.04
7	0.25	0.569	-0.238	0.21	0.091	0.407	0.25	0.456	0.29
8	-0.00	-0.15	0.011	0.20	0.087	0.398	0.02	0.040	0.31
9	0.37	0.848	0.758	0.57	0.240	0.253	0.29	0.558	0.59
10	0.73	1.673	2.444*	1.30	0.537	0.190	0.79	1.451	1.39
20	-0.23	-0.526	-0.510	0.49	0.177	0.181	-0.19	-0.661	1.13
Observation			26						

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value (B): based on standardized cross-sectional test.

Table 4.8 and 4.9 show results for CAARs to bidding firms through the three sub-periods. Findings for bidders are statistically not significant compared to findings from target firms, based on MARs; only outcomes from the two benchmarks show one window that gains significantly positive CAARs of +1.40% and +1.34% (FBMKLCI and FBMEMAS, respectively) on the pre-event window (-10 to -3).

Table 4.8
CAARs of bidding firms based on FBMKLCI as a benchmark

	Calculation based on MM			Calculation based on MAR	
window	CAAR (%)	T-value(A)	T-value(B)	CAAR (%)	T-value(A)
Pre-event					
(-20; -3)	0.45	0.238	-0.302	0.58	0.257
(-10;-2)	1.06	0.799	0.634	1.45	0.942
(-10;-3)	1.36	1.094	0.605	1.40	2.209*
At event					
(-1;+1)	-0.33	-0.426	-0.492	-0.45	-0.499
(-2;+2)	-1.54	-1.559	-0.739	-1.52	-1.039
(-5;+5)	-0.14	-0.096	-0.432	0.01	0.002
(-7;+7)	1.02	0.599	0.295	1.13	0.615
(-10,+10)	2.20	1.089	0.858	2.39	0.987
(-20;+20)	0.42	0.149	-0.198	1.34	0.515
Post-event					
(+3;+20)	1.51	0.806	0.392	2.28	1.253
(+3;+10)	2.37	1.902	1.368	2.51	1.149
(+2;+10)	1.47	1.110	0.960	1.67	0.954
Observations	26			26	

Table 4.9
CAARs of bidding firms based on FBMEMAS as benchmark

Pre-event					
(-20; -3)	0.55	0.300	-0.244	0,62	0.281
(-10;-2)	1.04	0.792	0.518	1.38	0.899
(-10;-3)	1.36	1.104	0.503	1.34	2.253*
At event					
(-1;+1)	-0.30	-0.396	-.0.451	-0.47	-0.517
(-2;+2)	-1.53	-1.566	-0.715	-1.56	-1.047
(-5;+5)	-0.25	-0.716	-0.582	-0.16	-0.118
(-7;+7)	0.91	0.538	0.173	0.90	0.499
(-10,+10)	2.11	1.056	0.768	2.10	0.879
(-20;+20)	0.49	0.177	-0.181	1.13	0.433
Post-event					
(+3;+20)	1.47	0.792	0.348	2.07	1.123
(+3;+10)	2.32	1.878	1.306	2.33	1.334
(+2;+10)	1.34	1.051	0.915	1.49	0.858
Observations	26			26	

*, **, represents significance level at 5% and 1%, respectively. t-value(A): based on the traditional t-test approach (Brown & Warner, 1980). t-value (B): based on standardized cross-sectional test.

4.4 Summary

In general, findings related to target firms are consistent with past studies (Jain & A. Sunderman, 2014; Mat Noor, 1992; Rahim & Pok, 2013). Target firms gain positively significant ARs (up to +3.3%) on day 0 as well as in the period around the announcement day. In this study, the 5-day window period (-2 to +2) reported significantly positive CAARs of +8.9% when FBMKLCI was used as the benchmark and +9.06% when FBMEMAS was used as the benchmark. Target firms' result support the first hypothesis **H_1** related to target firm part. Rahim and Pok (2013) reported +2.59% for the 5-day window period in their study about the third Malaysian M&As wave (2000-2009). However, higher returns to target firms are reported by this study compared to the previous M&A studies in Malaysia, these findings are supported the first hypothesis (**H_1**). Findings by Shah and Arora (2014) from Asia-Pacific show significantly positive CAARs of +9.5% for the 5-day window period. The study used M&A data in 2013 which is close to the period of study in this study. Another important issue related to data, in this study is more than 30% of the total target firms were excluded due to their suspension during the event period or estimation period. M&As in the financial sector is excluded following Mat Noor (1992) study in Malaysia and majority of M&A's studies. Where Rahim and Pok (2013) included the financial sector in their study of M&As' third wave in Malaysia which may affect the returns level.

Findings related to bidding firms in the past studies on Malaysian (Isa & Lee, 2007, 2011; Mat Noor, 1992) reported significantly positive ARs on day 0 and multi-day windows around the announcement day. In contrast, findings of this study show insignificant ARs

on day 0 to the bidders. Nevertheless, some days reported significantly positive or negative ARs around the announcement day. Findings related to bidding firms do not support the first hypothesis (**H_1**). Insignificant ARs for bidders also documented by some studies in the emerging markets, like Sehgal, Banerjee, and Deisting (2012) study in BRICKS; and Shah and Arora (2014) in the Asia-Pacific.

Findings related to pre-event abnormal returns have supported the second hypothesis (**H_2**) from target firms where the pre-event results from bidding firms are not significant. The post-event result are not significant for both the target and bidding firms, which have not supported the third hypothesis (**H_3**).

Target firms' findings related to acquirer status show highest CAARs for offers by investors, and the lowest CAARs reported by public acquirer's offers. This result can be clarified more by analysing premiums of M&As.

CHAPTER 5
CONCLUSION

5.1 Introduction

Many empirical studies have been conducted to find out how the stock price behaves towards M&A announcements by using event study methodology. Empirical studies on M&As have used a number of models to calculate the residual returns which have an impact on the findings. The MM is one of these popular and widely used models. Returns from M&As to bidders' shareholders show different results from one country to another. M&As indicate higher positive returns to shareholders of target firms compared to the bidding firms. Several variables have been tested as determinants of returns to bidding firms as well as to target firms, and the door is still open to add and examine other factors. The payment method is one of these factors that has been identified as influencing ARs of the firms involved in M&As.

5.2 Summary of Findings

This study examines the ability to gain ARs by being involved in M&A activities by Malaysian bidder and target firms. Using M&As' data during the period from January 1 2011 to June 30 2015, the final sample comprises 26 bidding firms and 59 target firms. In addition, the bidder status is taken into account to find the differences in the ARs under each status. Two models (MM and MARs) and two benchmarks (FBMKLCI and FBMEMAS) are used to calculate the ARs and CAARs. The main goal behind that is to see how using different models and different benchmarks affect the outcomes.

Through data analysis, the main findings can address the research objectives as follows: **first**, strong significantly positive abnormal return to target firms on the announcement day and on the multi-day windows around the announcement day. The findings of this study are consistent with the majority of findings in the emerging markets as well as the empirical findings from Malaysia. Findings related to bidder firms cannot confirm the existence of significantly positive ARs to the bidder, which has also found by the previous studies in Malaysia. Moreover, there is no significant ARs on the announcement day and the daily ARs show significantly positive or negative ARs around day 0. However, for bidding firms there is no evidence of value creation. **Second**, pre-event findings show significantly positive CAARs to target firms in the three pre-event windows. For the bidding firms, just one pre-event window (-10 to -3) shows positive CAARs which are significant based on MARs model under the two benchmarks. **Third**, the post-event result shows no significant CAARs over all post-event windows for both the bidding and target firms. **Fourth**, target firms gain higher CAARs when it receives offer from investors or private acquirers, while target firms show lower CAARs for offers by public acquirers. The findings related to acquirer status indicate that offers by investor acquirers and private acquirers are overvalued which is reflected in the high returns to target firms; while offers by public acquirers are more accurate in terms of evaluating offer price. **Fifth**, the significant findings indicate that both models (MM and MARs) show very close results and no clear trend. Outcomes based on the two benchmarks show a clear trend in the level of ARs, which are higher in the findings based on FBMEMAS as a benchmark.

The Malaysian M&A market has unique features; the most important one is using cash as main payment method which is up to 92% for target firms and 81% for bidding firms. Based on Rahim and Pok's (2013) study, during the third wave (2001 – 2008) for bidding and target firms 81% of the total M&A offers received cash offers. There are two reasonable factors behind that: first, the high level of liquidity for bidders. Almeida, Campello, and Hackbarth (2011) reported that firms involved in M&As under the effects of high liquidity are far away from the synergy goals; this state can be better matched by public offers. Second, the family business factor may push investors and private firms to acquire the target firm when they have a high toehold position for that they are focusing more to take over the firm however its value or the synergy goals.

5.3 Contribution of the Study

This study contributes to the lack of M&A studies in Malaysia, specifically Malaysian M&As in the period from January 1 2011 to June 30 2015, which has not been covered yet by other studies. Two benchmarks used to obtain the ARs can be considered as a contribution as it has not been used before. Acquirer status findings reveal important information that can help to better understand the impacts of acquirers' status on returns of target firms. Bidding firms can use this information to improve its decision-making process and capitalize on their benefits by being involved in M&A activities.

5.4 Limitations of the Study

The limitation of this study is that it cannot uses payment method factor to examine the stock price behavior towards M&As due to the smell of the sample. During the period

from January 2011 to June 2015 just 3 of 59 target firms were received stock financing. Also during the same period the study is identified 26 bidding firms which is low and can effect on results. There are a number of other factors that need to be investigated to determine its relationship with the ARs of bidding and target firms. Also, it just focuses on the short-term. This study did not add factors related to the private and individual acquirers' motivations to be involved in M&As which may provide a clearer picture about the M&A activities in Malaysia.

5.5 Recommendations for Further Research

Assessing performance of bidding firms and using event study approach can give more details and the real benefits of being involved in M&As under the synergy theory. Future studies can also investigate the impact of using different benchmarks on returns level of bidding and target firms, and the impact of the length of estimation period. M&As offered by investors and private bidders need more research to find determinants of selecting the payment method and how they assess the price of offers. Premium offers related to acquirer status to clarify more why the stock price of target firms behave differently need to be analyzed. Using cash financing by Malaysian bidding firms need investigate more to determine what the reasons to use cash financing as main payment method.

Examining the impact in the long-run can give more information to assess the ability of bidding and target firms to generate ARs by being involved in M&As. Outcomes from the short-term are not enough to determine whether bidding and target firms can generate ARs by being involved in M&A activities.

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