CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The study on acquiring and target firms share performance has received major attention by academic scholars. The majority of these studies, however, were conducted in the developed markets such as the United States (US) and United Kingdom (UK), while very little research has been done on developing markets such as Malaysia. Most studies on mergers and acquisitions seem to agree that target firms shareholders receive a significantly positive abnormal return around the announcement period. However, acquiring firms reveal mixed findings on the short- and long-term returns from acquisitions.

In their classic survey of the empirical research on mergers and acquisitions, Jensen and Ruback (1983) mentions that corporate takeovers or the market for corporate controls must be viewed as a market in which alternative managerial teams compete for the right to manage corporate resources. This refers to the competition market theory, which implies that corporate takeovers should be beneficial to shareholders of both firms involved in the transaction. However, as reported in the literature, the acquirer returns are lower than the target returns.

Many studies have addressed the impact of acquisitions on acquiring and target firms' performance in both the short- and long-term. Typically the general findings are as follows:

(a) Most studies on acquisition seem to agree that target firms receive a significantly positive abnormal return in both the short- and the long-term. In the short-term studies are Dodd and Ruback (1977); Dodd (1980); Frank, Harris and Titman (1991); Healy, Palepu and Ruback (1992) and Andrade, Mitchell and Stafford (2001) for the US, and Firth (1980); Franks and Harris (1989); Holland and Hodgkinson (1994) and Draper and Paudyal (1999) for the UK. While in the long-term studies are Asquith (1983); Malatesta (1983) for the US; and Firth (1980) and Limmack (1991) for the UK.

(b) The impact of acquisition on the acquiring firm's return appears to show mixed results both the short- and long-term:

(i) Many studies find that acquiring firms have small positive abnormal returns or at least insignificantly different from zero. In the short-term, Dodd and Ruback (1977); Asquith, Burner and Mullins (1983); Dennis and McConnell (1986); and Moeller, Schlingemann and Stulz (2004) for the US, and Frank and Harris (1989); Draper and Paudyal (1999) and Fuller, Netter and Stegemoller (2002) for the UK report significant positive returns. While in the long-term, Bradley, Desai and Kim (1983); Harris, Franks and Titman (1991) and Moeller, Schlingemann and Stulz (2004) for the US, and Firth (1980) and Frank and Harris (1989) in the UK report significant positive returns.

(ii) Other studies find that acquisitions have a negative impact in both the short- and long-term on acquiring share performance. In the short-term, Dodd (1980); Bradley, Desai and Kim (1983); Servaes (1991) and Walker (2000) for the US, and Sudarsanam and Mahate (2003) for the UK report significant loss. While in the long-term, Malatesta (1983); Agrawal, Jaffe and Mandelker (1992); Loughran and Vijh (1997) and Mitchell and Stafford (2000) for the US, and Gregory (1997); Sudarsanam and Mahate (2003) and Gregory and McCorriston (2005) for the UK.

Tuch and O'Sullivan (2007) notes that recent evidence from other markets tends to be more positive than findings documented in the US and UK markets for the short-term event studies. For example, Ben-Amar and Andre (2006) reports positive abnormal returns for Canadian acquiring firms around the announcement date. The Malaysian studies dating back to 1992 noted that returns for both the acquiring and target firms receive gains from acquisition in the short-term (Mat-Nor, 1992; and Isa and Lim, 1993), which is consistent with the US and UK studies.

Corporate acquisition plays an important role in the external growth of firms to achieve certain strategic motives, including the efficiency-related reasons involving economies of scale or other synergies, the replacement of inefficient management, tax savings, increased market power and technology development. Bradley, Desai and Kim (1983); Franks and Harris (1989) and Berkovitch and Narayanan (1993) find that synergies are the dominating driving force of acquisitions.

In a recent study, Draper and Paudyal (2006) states that acquisitions of privately held firms (unlisted firm), which represent the vast majority of transactions have been largely ignored and evidence of the impact on announcements of acquisitions of private firms on the value of acquiring firms is extremely sparse. Available empirical evidence is limited primarily to Chang (1998), Ang and Kohers (2001) and Fuller, Netter and Stegemoller (2002) all based on US acquisitions experience, and Conn, Cosh, Guest and Hughes (2005) and Draper and Paudyal (2006) in the UK market.

Another critical element in corporate acquisition is the method of payment used to settle the acquisition process. The most commonly used methods of payment are: pure cash payment and pure share payment, while a small number use a combination of cash and share payment. Georgen and Renneboog (2004) states that the methods of payment have an impact on the firm share price. Andrade, Mitchell and Stafford (2001) and Faccio and Masulis (2005) support the earlier finding; they report that target firms with cash offers have higher returns than those with share offers. However, the evidence to date has been, generally, inconclusive on the impact of methods of payment on acquiring firms' in the developed markets. Many studies[1] report that cash acquirers often earn abnormal returns while share acquirers earn no abnormal return. While Bellamy and Lewin (1992); Chatterjee and Kuenzi (2001) and Moeller, Schlingemann and Stulz (2004) find that share acquirers on average earn positive returns. In the Malaysian market, Isa (1994) reports that acquiring firms in cash acquisitions have a positive return of 0.12% and share acquirers have a negative return of 0.65%, over the period of day -1 to day 0.

[1] See e.g. Harris, Franks and Titman (1991); Loughran and Vijh (1997); Andrade, Mitchell and Stafford (2001); and Fuller, Netter and Stegemoller (2002)

1.2 PROBLEM STATEMENT

The problem statement is based on several aspects:

1. Emerging Equity Market

Although there is a significant amount of literature on corporate acquisition issues in developed markets, the developing markets such as Malaysia remain relatively unexplored. Differences in Malaysia's industry, corporate structure, capital markets, regulations, and investors' behaviour appear to justify the differences in the Malaysian experience. Consequently, it may not be appropriate to simply apply the conclusions from the US and UK to interpret the Malaysian market, although similar findings can occur.

The different features in the Malaysian market may provide different results from the existing findings. For example, most of the Malaysian listed firm's voting rights are controlled by a single shareholder or a block of shareholders, often a family group (Claessens, Djankov and Lang, 2000). Therefore, hostile acquisitions and competition in bids seldom take place. Further, Section 4 of the Malaysian Income Tax Act, 1976 does not classify normal capital gains from trading of securities as a taxable item.

2. Short-term Acquisition Performance of Acquiring Firms

Despite the fact that previous literature has studied the cause and effect of acquisition, results are still inconclusive on acquiring firms share price around the announcement date. Jensen and Ruback (1983) in a review of previous studies find that, in the short-term, acquisition have significant negative or positive impact on acquiring firm share price. Sudarsanam and Mahate (2003) conclude that returns to

acquiring firms in both the short-and long-term following an acquisition are quite ambiguous. The competition market theory implies that managerial teams compete for the right to manage corporate resources, thus, a competitive market forces management to maximize shareholders wealth to avoid market discipline (Jensen and Ruback, 1983). This theory suggests that corporate acquisitions should be beneficial to shareholders of both acquiring and target firms involved in the corporate acquisition.

3. Target Status

There is very limited research on either the short or long-term returns to public acquiring firms that acquire privately held targets. However, the number of acquisitions involving unlisted private target transactions represent a large portion of the total number of acquisitions in the US and UK, as well as in Malaysia. Draper and Paudyal (2006) state that for the 21-year period between 1981 and 2001, more than 80% of the UK target firms were unlisted. Available empirical evidence is limited primary to Chang (1998); Ang and Kohers (2001); Fuller *et al.* (2002) and Moeller, Schlingemann and Stulz (2004) for the US market, and Conn *et al*. (2005) and Draper and Paudyal (2006) for the UK market. In Malaysia, little is known about the Malaysian experience on the acquisition of private firms. Clearly they are understated in their importance because they represent by far the most common target for acquisition. Acquisition of private firms raises the interesting question of whether investors can value an acquisition under asymmetric information conditions. In This situation, there exists asymmetric information whereby the acquiring firm has more knowledge on the private target than the market.

4. Methods of Payment in Acquisitions

Acquiring firms may use cash, shares or a combination of both as the method of payment. Several US and UK studies have provided hypotheses to explain the motivation behind the choice of method of payment in corporate acquisitions. Wansley, Lane and Yang, (1983); Carleton *et al.* (1983) and Brown and Ryngaert (1991) argue that there are tax considerations associated with the method of payment in acquisitions. A cash acquisition causes an immediate capital gains tax realized for the target firm's shareholders, while a share-financed acquisition defers the capital gains tax until the new shares are sold. In Malaysia, Section 4 of the Income Tax Act does not classify the normal capital gains from trading of shares as a taxable item. If the US market on tax implications is valid, the Malaysian market should observe an insignificant difference between abnormal gains for cash and share settlement for target firms.

When the acquirers and target are asymmetrically informed about the true value of their respective shares, the methods of payment may cause information revelation to the market. Leland and Pyle (1977) and Myers and Majluf (1984) suggest that use of shares to finance an acquisition conveys unfavourable information about the value of acquiring firms because markets view that acquiring management, acting in the best interests of shareholders, would not issue shares unless the acquiring firm's shares are overvalued in the market.

The methods of payment on the long-term post-acquisition performance of acquirers in developing markets have not been studied as intensively as in developed markets. Until recently, most long-term post-acquisition performance studies focused on

firms with the method of payment, mainly in the US and UK markets. However, in most Asian countries, specifically developing countries, there have been very few such studies. They are mainly on the share returns around the announcement period (Cheung and Shum, 1993; Isa and Lim, 1993; Mat-Nor, 1993a; Isa, 1994; and Mat-Nor and Ismail, 2006), and little attention is devoted to the results of long-term returns from acquisitions. This might be because of the strong belief in market efficiency and, thus, no abnormal returns should be made. In light of this, the methods of payment on acquiring firms in long-term post-acquisition have yet to be sufficiently analysed. Thus, this study investigates the long-term effect of methods of payment on the Malaysian acquiring firms following the corporate acquisition.

5. Long-term Post-acquisition Performance of Acquiring Firms

Most of the US long-term studies conclude that the acquiring firm experiences significant negative returns over one to three years after the acquisition (see e.g., Malatesta, 1983; Agrawal *et al*., 1992; Mitchell and Stafford, 2000; Sudarsanam and Mahate, 2006; and Tuch and O'Sullian, 2007). The post-acquisition negative share performance experienced by acquiring firms challenges the market efficiency hypothesis. If the market is efficient in evaluating the information disclosure around the announcement, there should be no abnormal performance in the long-term. The findings may indicate that the market does not fully adjust to the information revealed around the acquisition announcement. However, the information on acquisitions is widely published and market participants are likely to know the future prospects of that acquisition. Further the negative long-term share performance that acquiring firms experience in the post-acquisition period is inconclusive. The UK studies present a contrary view that on average the acquiring

firms' long-term abnormal returns after three years is not statistically different from zero (see e.g. Franks, Harris and Titman, 1991; Jakobsen and Voetmann, 2003 and Gregory and McCorriston; 2005).

Cartwright and Schoenberg (2006) also comment that longitudinal studies of acquisitions are still uncommon, primarily because it is difficult to maintain representative sample sizes over time, particularly in circumstances when attrition rates are characteristically higher than usual. In sum, many of the discrepancies in the existing studies of long-term acquisition performance may be explained by different sample periods. But the methodologies used are different among authors in choosing both different return matrices and different benchmarks for expected returns. Barber and Lyon (1997a), Kothari and Warner (1997) and Lyon, Barber and Tsai (1999) provide thorough evidence about various methods of measuring abnormal performance. However, these papers do not find that one method is always preferred and without a perfect model for long-term performance of the return generating process this debate will continue indefinitely.

1.3 RESEARCH QUESTIONS

The discussions in the above section lead to the following research questions follow:

1. To what extent are the established acquisition theories in the developed markets equally applicable in a developing market such as Malaysia?
2. What are the price reactions of the acquiring and target firms to an acquisition announcement?
3. How do public acquisitions and private acquisitions impact on acquiring firm returns?

4. Do cash offer and share offer acquisition impact acquiring and target firm returns differently?
5. Are there any significant returns to acquiring firms over the long-term post-acquisition period?

1.4 RESEARCH OBJECTIVES

The primary objective of this study is to examine Malaysian acquisition performance on the acquiring firm for the period 2000 to 2004, through the analysis of target status and methods of payment both in short- and long-term. The main research question is: Does Malaysian acquisition target firm status and methods of payment influence the acquiring firm's share return in both the short- and long-term?

The specific research objectives of the study include:

1. To examine if established acquisition theories in the developed markets are equally applicable in a developing market such as Malaysia.
2. To examine the share price performance of acquiring and target firms around an acquisition announcement.
3. To investigate the impact of target firm status on acquiring firm returns. Target firm status refers to whether the target is a listed (public) firm or an unlisted (private) firm.
4. To examine the impact of different methods of payment on acquiring and target firm's returns. The methods of payment examine are purely cash or purely share settlement.
5. To examine the long-term post-acquisition performance of acquiring firms using different return adjustment models.

1.5 SIGNIFICANCE OF THE STUDY

This study is significant from several aspects:

1. The main issue to be studied is whether partial corporate acquisition of another company results in wealth creation to the shareholders of the affected companies in the Malaysian corporate environment. This study is motivated by the many acquisition activities taking place in the market and yet very few academic studies are conducted to examine its effect on shareholders wealth. This study extends the existing literature by examining the link between the target status and method of payment, and its impact on the acquiring firm's returns, focusing on Malaysian acquisitions.

2. Most prior studies focused on the developed capital markets; very few studies on the developing capital market have been undertaken. It is unclear if the results obtained from the developed capital market can be generalized for the developing capital market where the volume of transactions is relatively small compared to transactions in the developed market. Thus, this study focuses on a specific country study, i.e. Malaysia to provide a better understanding of corporate acquisitions and firms' performance in developing countries.

3. The existing Malaysian studies focus solely on the short-term announcement period effect. The long-term performance of acquiring firms following an acquisition is virtually non-existent. Hence, this study attempts to provide evidence on the effect of long-term post-acquisition performance.

4. This study offers theories pertaining to the target status and methods of payment on firm returns. Though prior studies have tended to focus on the target status and acquiring firm returns around the announcement date, this study expands the target status and acquiring firm returns to the long-term post-acquisition performance. Further, this study attempts to link the target status and the risk implications through the analysis of the acquiring firm's returns.

5. The provisions of the Malaysian Code on Takeovers and Mergers 1998 (the Code) are to ensure information transparency and fairness in the process of acquisition. By examining the corporate acquisition event and firm performance it is possible to infer the level of transparency (at least to the market makers) of the information on acquisitions bids on the Bursa Malaysia. The findings of this study may be useful to the regulators such as the Securities Commission and Bursa Malaysia to determine whether the firm that engages in an acquisition are in accordance the Code.

1.6 SCOPE OF STUDY

The study sample consists of all public listed firms involved in acquisition for the period of 1 January 2000 to 31 December 2004. This period is selected because in July 1997 Malaysia experienced a sudden economic downturn (so called Asian Crisis). Consequently, 1997 to 1999 was a period of economic downturn with various restructuring plans taking place and, therefore, might not give a reliable analysis for this study. Hence, 2000 seems to be an ideal starting point for this study. If it included the extreme economic disturbance it would result in biased findings and might not be fully representative of the acquisition performance in Malaysia.

The study would be more comparable if the period of study was limited to a specific economic cycle.

This study sample includes public acquisitions (acquired listed target firm) and private acquisitions (acquired unlisted target firm). However, the analysis of the acquiring and target firms is limited to firms listed on Bursa Malaysia only. The reason for not including private firms is because the information is not available.

1.7 OVERVIEW OF METHODOLOGY

In pursuing the goal to investigate the target status and methods of payment of acquisition on shareholder wealth, the event study methodology will be used. Event study methodology is frequently used to assess the impact of a particular event on stock returns, such as earnings announcements, dividends announcements, and mergers and acquisitions announcements.

This study analyses short-term price adjustments around acquisition announcements and the subsequent long-term performance over a three-year period. The first part investigates the pre-and-post short-term market effect of the acquisition on the acquiring and target firms' daily stock return. The Scholes and Williams model is used to estimate beta for thin trading stock market and the market model is used to estimate firm returns. The market model relates the return on an individual asset to the return on a market index and an asset-specific constant. As documented by Loughran and Vijh (1997), evidence in merger and acquisition is usually based on returns computed over a pre-acquisition period starting immediately before the announcement date and after that event. The second part of the analyses is the long-

term post-acquisition performance of acquiring firms. For the long-term methodology, the monthly market-adjusted return and buy-and-hold approach are used to estimate the long-term performance.

1.8 BASIC TERMINOLOGY AND CONCEPTS

Generally, corporate restructuring activities include mergers, acquisitions, takeovers, divestitures, alliances, joint ventures, restructuring, consolidation, minority investment, licensing, and franchising as well as internal activities (DePamphilis, 2005). In acquisitions literature, terms such as merger, acquisition and takeover are used frequently, but the distinctions are not precise, and are used interchangeably to mean the same phenomenon. In this study, acquisition refers to both acquisition and takeover for convenience without attaching any specific significance to the choice of this convenient word. The terminology is discussed in detail in the remainder of this section.

1.8.1 Takeovers

Takeover refers to an offer made to the shareholders of a firm by an individual or firm to buy their shares at a specific price in order to gain control of that firm. In a friendly takeover of control, the target board and management are receptive to the idea and recommend shareholder approval. Generally, the acquiring firm must offer a premium to the current price of the target share.

In contrast, an unfriendly or hostile takeover begins with an unsolicited offer by acquirers to purchase a majority or all of the target firm's shares. This is accomplished by a tender offer; the acquirer will set the offer for a particular period of time, at a price and with a form of payment, and may attach conditions to the offer.

The Malaysian Code on Takeovers and Mergers,[2] defines takeover to mean an acquisition of shares in a target firm, which when aggregated with shares already held by the acquirer, would give the acquirer the right to exercise more than 33% of the voting right of the firm. Where a firm has acquired shares that carry one-third or more of the voting rights of the other firm, then the acquirer is obliged to make a 'general offer' to other shareholders of the target firm. The general offer is similar to a tender offer in the existing literature. The procedure for making a general offer is set down in the Code on Takeovers and Mergers 1998 (see Appendix A). The end result is that with a takeover situation, the control of the target firm passes to the acquirer. A takeover can eventually lead to a merger as in the reconstruction exercise, for example, in the Malayan Mining Corporation case.

1.8.2 Mergers

Depamphilis (2005) states that merger can be described from a legal perspective and an economic perspective. A legal perspective refers to the legal structure used to consummate the transaction; such structures may take on many forms depending on the nature of the transaction. A merger is a combination of two or more firms pooling their resources together into a single business. The shareholders of both pre-

[2] See Appendix A: The Malaysian Code on Takeovers and Mergers

merger companies have a share in the ownership of the merged business and the top management positions after the merger. Generally, the decision to merge is mutual between both companies; the approval of both companies' shareholders is a requirement for a merger to be completed. For example, in 2004 the Bumiputra Commerce Bank merged all its operations under the CIMB group to form the CIMB Bank in Malaysia.

An economic perspective refers to the business combination of horizontal, vertical, and conglomerate mergers. The classification of the type of merger depends on whether the merging firms are in the same or different industries and on their position in the corporate value chain (Depamphilis, 2005). A horizontal merger occurs between two firms within the same industry. For example, horizontal mergers include Sin Chew Press Bhd and Nan Yang Press Bhd (2007), and CIMB and Southern Bank (2006). Conglomerate mergers are those in which the acquiring firm purchases a company in largely unrelated industries, for example, the takeover of Kong Ming Bank by Edaran Otomobile Nasional Berhad (national car distributor).

A consolidation is the same as a merger except that an entirely new firm is created. For a consolidation, both the acquiring firm and the target firm terminate their previous legal existence and become part of the new firm. In practice, consolidation transactions are normally referred to as mergers. Though a merger is a mutual agreement between friendly parties, one company can be stronger than the other and dominate the transaction.

1.8.3 Acquisitions

An acquisition refers to the purchase of a controlling interest in a firm. An acquisition may involve the purchase of another firm's assets or shares, either directly or indirectly, through control of either the voting rights or management of the latter, with the acquired firm continuing to exist as a legally owned subsidiary of the acquirer.

The share acquisition is to purchase all or part of the outstanding shares of the acquired firm, and the form of payment settlement may be in cash, exchange of shares, or other securities. This can start as a private offer from the management of one firm to another, and the offer is directly to the target firm's shareholders. This can be achieved through a tender offer, which is a public offer to buy target firm's shares or an offer made by a firm directly to another firm' shareholders. The tender offer is communicated to the target firm's shareholders via public announcements, and usually tender offers can be friendly or hostile offers. Hostile means that an offer is made to the target shareholders without the approval of the board of directors.

An asset acquisition refers to the acquirer's purchase of all or part of the assets and the business of the target firm. A formal vote of the shareholders of the selling firm is required. This approach is to avoid the potential problem of having minority shareholders, which may occur in an acquisition of shares. However, the legal process of transferring assets can be very costly.

1.8.4 Acquisition Settlement

In general, the acquirers may use cash, share exchange, combination of cash and share, and other instruments as the methods of payment for acquisitions. To some extent, the choices of the financing methods might be influenced by the market conditions and market trend. For instance, the strength of the acquirer's share price, existing and prospective gearing structure, cash resources and tax position will all be important in determining the method of payment used in acquisition transactions. This study includes all cash payment, share payment, and combination payment.

1.8.4.1 Cash Payment

The majority of the acquisitions are consummated by straightforward cash payments, in the form of a bank loan, internal funds, or cash warrant. If shares or debt securities are to be issued for an acquisition, a cash alternative is very frequently offered to shareholders of the target firm. Cash transactions are quick, and can also avoid certain complexities associated with equity issues. For large acquisition deals the acquirer may need to carry out substantial and complex fund raising exercises in advance to ensure that the cash resources are in place. In most cases, cash acquisitions are financed by short-or-medium-term bank loans. Whether an acquiring firm should borrow in order to raise the necessary cash will depend on the level of existing borrowing in the target company.

1.8.4.2 Shares Payment

Share or stock financing of acquisitions tends to be popular following rises in the stock market, whereas cash offers tend to be used when the market is in a downturn. When acquiring firms detect that their stock is overvalued, the management believe that it is a cheaper way to finance a new acquisition. However, even where the acquirer's shares are highly-rated, it does not automatically follow that shares are the preferred form of payment for the acquisition. A cash consideration establishes a fixed and certain value on the target firm. A share consideration also involves a valuation of the acquirer firm itself in order to determine the number of shares to be issued.

Thus far, in this section are the acquisition terms described in the Code. The Malaysian Code on Takeovers and Mergers 1998 (the Code) together with the Capital Issues Committee guidelines, the Foreign Investment Committee, and Malaysia stock exchange form an intensive watchdog system to regulate takeover and merger activities. However, not all approvals are a must for every acquisition transaction; each acquisition transaction may require the approval of one or several.[3]

1.8.5 Definition of Other Key Terms Used in This Study

To obtain a sort of navigational fix for this study it is necessary to have a definition of terms in this context. The following section discusses the terms used in this study:

1. *Abnormal return (AR) or residual:* the difference between the stock return at any time and the predicted stock return. It is the return due to an event such as a merger, acquisition or takeover.

[3] See Appendix A

2. *Acquiring firm:* refers to a firm that has decided to takeover or acquire control over another firm.
3. *Acquisition:* refers to the activity of one firm (acquiring firm) purchasing the assets or shares of another firm (the target firm), and the target firm's shareholders cease to be owners of that firm.
4. *Cash payment:* refers to an acquisition transaction that is financed in cash.
5. *Cumulative abnormal return (CAR):* is the sum of the abnormal return for each period of measurement over a horizon defined in this study.
6. *Event date or announcement date:* refers to the day or date that the acquisition proposed information becomes public.
7. *Share payment:* refers to an acquisition transaction that is financed in shares or share exchange.
8. *Short-term event period:* in this study refers to a period of 30 days prior to the acquisition announcement and up to 30 days after.
9. *Long-term event period:* refers to the long-term post acquisition over a period of three years.
10. *Takeover:* refers to a transaction whereby a firm (the bidder) acquires control over the assets of the victim (the target firm) directly through the voting rights.
11. *Target firm:* refers to the firm that is being solicited by the acquiring firm.
12. *Tender offer:* is an offer to purchase a proportion of the outstanding shares of the target firm on specified terms.
13. *Private acquisitions:* acquisition of unlisted (private) target firm.
14. *Public acquisitions:* acquisition of listed (public) target firm.
15. *Mixed payment:* refers to an acquisition transaction that is financed in cash and shares.

Since both mergers and acquisitions consist of the takeover of one firm by another, the term acquisition in a generic sense refers to any takeover. For convenience, the following terms will be used interchangeably unless a fine distinction between them is required:

- 'Cash offer', 'cash payment', and 'cash settlement'.
- 'Company', and 'firm'.
- 'Offeror', 'bidder', 'acquirer', 'bidding firm', and 'acquiring firm'.
- 'Offeree', 'acquired firm', and 'target firm'.
- 'Stock', 'share', and 'security'.
- 'Share offer', 'share exchange', 'stock payment', 'equity payment', and share settlement'.
- 'Short-term' and 'short-run'.
- 'Long-term' and 'long-run'.
- 'Private target firm' and 'unlisted target firm'.
- 'Public target firm' and 'listed target firm'.

1.9 CHAPTER ORGANISATION

The remainder of this thesis is organised as follows. The next chapter, Chapter 2 discusses the acquisitions theories and focuses specifically on acquisition theories, target firm status, choice of method of payment in an acquisition, and empirical evidence in short- and long-term. It synthesises the extant literature on acquisitions and identifies gaps from a Malaysian perspective focusing both on theory and research contribution. Chapter 3 explains the testable hypotheses, data collection and the short-and long-term research methodology used in the study. Chapter 4 presents and discusses the empirical results. Chapter 5 concludes the overall results,

acknowledges limitations inherent in the scope of study and research design and identifies additional potential issues for future research.

Thus far, this chapter provides a general overview of the study by showing the need for local scene corporate acquisitions evidence, both in the short- and long-term. Although there is extensive acquisition literature in the developed market (the US and UK), the information relating to acquiring firms that acquire privately held firms is still limited. Moreover, it is unclear if the results obtained from the US and UK could be generalized for the developing capital market where the volume of transactions is relatively small compared to transactions in the developed market. To address this issue, this study attempts to provide evidence of the effect of target status and methods of payment on firm performance in Malaysia, which has differences in the business environment and ownership structure of firms compared to the US and UK. The next chapter discusses issues related to acquisition theories, target status and methods of payment on firm returns in acquisition, as well as a comprehensive review of prior literature both in the short - and long-term.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

There is widespread debate about the causes and consequences of acquisitions in the finance literature, however, inconsistencies still exist regarding the effects of acquisition on shareholder wealth in both the short- and long-term. The purpose of this chapter is to synthesise existing literature on acquisitions focusing on target firm status and method of payment on firm returns. The chapter will also try to make an assessment if theory and evidence on mergers and acquisitions in developed markets are also applicable to a developing market such as Malaysia.

The remainder of the chapter is organized as follows. Section 2.2 discusses the acquisition theories followed by the targets status in acquisitions and highlights various hypotheses derived from prior research. Next, it discusses the factors that affect the choice of method of payment to finance an acquisition. After identifying the theoretical issues, Section 2.3 provides a review of prior studies on the impact of acquisition on acquiring and target firms return, target status and methods of payment, in both the short- and long-term performance. The chapter ends with Section 2.4 – summary.

2.2 THEORETICAL DEVELOPMENT

The decision to acquire another firm should be primarily motivated by the desire to increase the acquiring firm's value. This means that the management of the acquiring firm expects an increase in the shareholders wealth (Manne, 1965 and Halpern, 1983), while the investors expect an increase in the stock price.

2.2.1 Acquisitions Theories

There are two competing theories of the firm that have been developed in the academic literature, and empirical evidence is in support of both. These two major theories of the firm can be used to explain why firms engage in acquisition transactions and predict the outcome of acquisition performance. The theories are as follows:

1. Neoclassical profit maximization theory of the firm – states that a competitive market forces a firm's management to maximize shareholder wealth. This theory implies that the management should engage in acquisitions only if it results in an increase of the shareholders' wealth (Manne, 1965). Shareholders wealth is likely to increase if the acquiring firm's profitability increases following the acquisition. The profitability can be increased through the creation of synergy or the increase in efficiency as a result of wealth transfers through tax saving, or through introducing superior management into the target firm. The positive expected economic gain from the acquisition depends on the competitiveness of the acquisition market. A constraint on this motive for acquisitions occurs when there are a lot of potential acquirers competing with each other to acquire target firms as they will tend to engage in bidding contest until all the profit potential available from the synergy or efficiency effects, monopoly power, etc. is

transferred to the target shareholders. This phenomenon is referred to as a perfectly competitive acquisition market (Mandelker, 1974).

2. Managerial utility maximization theory holds that beyond achieving a certain growth in sales or assets, management attempts to maximize their own self-interests, instead of maximizing shareholders wealth. The theory presupposes that the acquiring management engages in acquisitions because it is driven by managerial utility maximization reasons such as managing larger firms or earning high compensations and benefits at the expense of the shareholders. Therefore, in such acquisitions the acquiring management ends up paying an excessive bid premium for the target firm.

2.2.1.1 Synergy or Efficiency Theory

Chatterjee (1992) proposes that free markets have long maintained that acquisitions are value-increasing events due to improved performance and/or synergistic gains. Synergy occurs when the combination of two firms result in a combined net gain that is more than the sum of the pre-acquisition value of the individual firms. Thus, if acquisitions are motivated by synergy, gains to the acquiring and target firms will be positive and positively related with each other. Sudarsanam, Holl and Salami (1996) confirm that synergy comes from various sources, such as financial, operational and managerial, and creates value for the shareholders of the acquiring or target firms, or both.

1. Financial Synergies

In certain acquisitions, there are several potential sources of these financial synergies. The new combined firm may result in the ability to take advantage of each other's financial positions. It results in lower cost of capital, cost of debt, or greater debt capacity through better access to the capital market, and the tax advantage of unused debt capacity in either the acquirer or target (Sudarsanam, Holl and Salami, 1996). For example, a firm with large internal cash flows while having few investment opportunities when combine with another that has low internal funds while having more growth opportunities will result in a lower cost of internal funds, or better use of cash reserves. In addition the debt capacity of the combined firm can be greater than the sum of the two firm's capacities before acquisition thereby allowing the merged firms better access to debt financing. Moreover, if the two firms are in unrelated businesses the merger will also lower the systematic risk of a firm's investment portfolio. When one of the firms in the acquisitions has unused debt capacity while the other already operates at its optimal gearing level, drawing on the unused capacity will result in additional tax advantage for the merger. Sudarsanam, Holl and Salami (1996) state that the larger the difference in debt levels between the acquiring and target firms, the greater will be the value created from their acquisition.

Tax benefits can arise from the use of net operating losses to shelter income. When the profitable firm acquires a money-losing firm, the acquiring firm would able to use the current net operating losses to reduce its tax burden. Alternatively, acquiring

firm may able to increase its depreciation allowances after an acquisition will save in taxes, and increase its value.[4]

Myers and Majluf (1984) provide another financial motive for acquisition: the mismatch between resources and investment opportunities within each merging firm that can be corrected by the merger.[5] In their model, slack-rich acquirers (i.e. those with low gearing level) acquire slack-poor targets. Financial slackness refers to the available positive net present value (NPV) investment opportunities. Such indirect finance of target firm's investments is expected to lower the costs of capital and increase shareholders wealth. Myers and Majluf predict that the acquirer is less geared than the target firm and that the larger the gearing difference the greater will be the wealth gains to shareholders.

Following the work of Myers and Majluf (1984), Palepu (1986) and Burner (1988) study's whether acquirers and targets are levered differently from each other. Burner (1988) finds empirical support of Myers and Majluf's hypothesis that slack-rich acquirers pair with slack-poor targets to create value. Burner reports that acquirers have significantly greater financial slack and target display significantly higher leverage in the two years prior to the merger. He also finds that the outcome of the merger has material effects on the firm's returns; successful acquirers have more slack than unsuccessful acquirers. Similarly, successful targets have less slack than their unsuccessful counterparts.

[4] However, the Malaysian law stipulates that the unabsorbed tax losses and capital allowances of an existing company brought forward would be disregarded if there is a substantial change in the shareholding of the company in the subsequent years of assessment (Section 44(5A)).

[5] Palepu (1986) suggests that the mismatch between growth and resources in a firm will make it more likely to be an acquisition target and finds empirical evidence in support.

2. Operating Synergies

Operating synergies exist when acquisition enables firms to manage their operating costs more economically. The combination of two firms may operate more efficiently than two separate entities, as both firms in an acquisition bring some complementary skills to the combination such that value is created as a result of the acquisition (Seth, 1990). For instance, production linked economies may be achieved in the areas of equipment or overheads by more than one product. Consequently, these operating synergies should manifest in lower operating and financing expenses, thereby improving operating performance. The operating economies of scale can be achieved mostly through horizontal mergers. The combining firms at within-market may obtain more efficient coordination among different levels, such as those associated with marketing, production, distribution, finance and management sharing.

Economies of scale arise if the combined firm achieves unit cost savings as it increases the scale of a given activity. Production-linked economies of scale are used to consider the main driver of cost cutting. Capron (1999, p.989) states that '*sharing activities enable combined firm to obtain cost reduction based on learning curve economies, since each merging firms business, when acting independently, might not have a sufficiently high level of cumulative volume of production to exploit learning curve economies'*.

Operating synergy is often cited in bank mergers. Since the financial crisis in 1997, Bank Negara Malaysia (the Central Bank of Malaysia) has successfully implemented a merger programme for Malaysian banks in order to improve the efficiency of the

banking system, and to be more competitive in the global market. A few of the large banks have grown by systematically buying up small banks and streamlining their operations. Most of the cost savings have come from closing redundant branches, consolidating systems and credit-card transactions and payments. However, Mat-Nor and Hisham (2003) does not find support for this theory. In their study they investigate if there exists an improvement in bank's technical efficiency following the banking sector consolidation in Malaysia from 2000 to 2001 using the Data Envelopment Analysis (DEA) at the pre-and-post merger. They find that mergers have no impact on the level of bank efficiency in Malaysia. Chong, Liu and Tan's (2006) supports the evidence when they conclude that forced merger schemes (as in the case of Malaysian consolidation of the banking sector) destroy economic value in aggregate.

3. Managerial Synergies

Managerial synergy refers to efficiency gains from the combination of management teams of unequal managerial capabilities (Weston, Siu and Johnson, 2001). This theory suggests that firms operating in similar kinds of business activity would be most likely to be potential acquirers because these firms have the information or experience for detecting below-average or less-than-full-potential performance and managerial know-how to improve the performance of the target firm.

Managerial synergies could arise when the acquirer's management possesses superior planning and monitoring abilities that benefit the target's performance. Such acquisition is disciplinary in which the poor target management team are subject to the discipline of the market for corporate control (Bradley, Desai and Kim, 1983). Asquith (1983) suggests that the combining of firms with unequal managerial capabilities can

improve efficiency. Thus, if the acquiring firm management is more efficient than the target firm management, and, if after acquisition, the inefficient target is made as efficient as the acquiring firm, this improving the overall efficiency of the latter can create value. Synergy may also arise if the target firm is simply inefficiently managed and, therefore, not performing to its potential. If the acquisition occurs the acquiring firm may be able to manage the inefficient firm's assets better. This source of synergy is called "inefficient management", as opposed to the "differential efficiencies mentioned above.

Lang, Stulz and Walking (1989) find that acquiring and target firms' shareholders gain when well-managed acquirers buy poorly managed target firms. Moreover, target firm's shareholders gain more from acquisition when their firms are poorly managed, rather than well-managed. Servaes (1991) and Martin and McConnell (1991) suggest that disciplinary acquisition generates the most gains to shareholders.

In the local scene, Ali and Gupta (1999 and 2000) use the successful takeover firm's annual report data to assess the motives and effects of Malaysian corporate takeovers during the period 1980 to 1993. The discriminant logistic model is used to examine the predictable variables, such as size, growth ratio, profitability ratio, risk and leverage to analyse the performance characteristics of the takeover firm. The findings indicate that financial leverage serves as a good predictive variable for discriminating variable followed by profit, risk, firm size, and growth. They find that the takeover was motivated by the acquirer firm's desire for achieving economics of scale in order to maintain high profit and high growth by displacement of inefficient managers of target firms.

2.2.1.2 Information Effect Theory

The information efficiency theory is based on the financial market inefficiency, the acquiring firm has information concerning the target firm that is not generally available to the public and is not incorporated into the current stock price of the target firm. Hence, for some reason, the true value was never discovered until the target firm begins to attract market attention during the acquisition negotiations. The information approach refers to an upward revaluation of the target's share price due to dissemination of new information during the acquisition negotiation period.

Bradley, Desai and Kim (1983) discusses two forms of information effect hypothesis: the 'kick-in-the-pants' theory and the 'sitting-on-a-gold-mine' theory. The 'kick-in-the-pants' hypothesis refers to the new information that the target management learns from the announcement of an acquisition bid, which induces the existing target management to apply a higher-valued operating strategy. The 'sitting-on-a-gold-mine' hypothesis, in contrast, is where the acquiring firm has superior information about the true value of the target firm. Hence, the acquisition attempt would signal to the market to revalue the target shares previously viewed as undervalued shares. In either event, the information hypothesis assumes that the targets' shares or the targets' managers are revalued by the market in response to the new information.

One of the most prominent theories in finance is the efficient market hypothesis. An efficient market means the price mechanism is a fair game; the security of all firms is priced in equilibrium to reflect all available information about those firms' investment or financing decisions. As new information (i.e., acquisition

announcement) regarding these decisions is revealed to the market, security prices adjust to restore equilibrium. Event studies on corporate acquisition usually assume that the stock market is efficient with respect to the available public information. However, the definition of available information is not consistent. For example, when the acquiring firm acquires an unlisted private target firm it raises the interesting question of whether the market can value an acquisition under such an asymmetric information conditions. The asymmetric information condition arises when there is a scarcity in public information about a private target, and where the acquirer probably knows more about the target's value than does the public.

Most of the acquisition evidence is based on returns computed over a pre-acquisition period starting immediately before the announcement date and ending on or before the effective date. This assumes that the firm's stock prices are fully adjusting to the likely efficiency gains from acquisitions. Fama (1965) states that the underlying theory of event-study methodology is efficient market hypothesis. Thus, any new information resulting from an unexpected acquisition event will affect the firm's current and future stock price as soon as the market learns of the event. The semi-strong form of the efficient market hypothesis requires that the information contained in unexpected acquisition announcement be impounded quickly and accurately into the firm stock price and then that the stock return should be distributed in a random trend around zero. This unexpected significant announcement information on the stock prices may be reflected by abnormal returns for a short period of time.

The issues of long-term post-acquisition performance on acquiring firms have generated academic debate in the literature of financial economics. The semi-strong form of efficiency implies that the market will price the acquirer correctly, once the acquisition information becomes public. The evidence on the long-term performance are somewhat controversial. The majority of the studies like Sudarsanam and Mahate (2003), Rau and Vermaelen (1998) and Agrawal, Jaffe and Mandelker (1992) find negative long-term performance, while others such as Gregory and McCorristion (2005), Mandelker (1974) and Franks, Harris and Titman (1991) find statistically insignificant abnormal performance. The long-term post-acquisition underperformance of acquiring firms suggests that the market is inefficient. However, Fama (1998) states that the market is still efficient and gives supporting arguments. Fama argues that long-horizon anomalies are sensitive to the methodology used to measure normal expected returns and that the inference of long-term performance is obscured by the distribution of long-term returns.

2.2.1.3 Market Power Theory

Often the reason for acquisition of another firm is that it can create market power or increase a firm's market share, allowing firms to add value by raising price, especially applicable to the within-market mergers. Increase of market share means enlarge the size of the firm relative to other firms in the industry. The market power hypothesis suggests that acquisitions increase product prices and, hence, benefit the combined firms and other competing firms in the industry. The horizontal mergers create monopolistic power by reducing the number of competing firms in the industry. This market concentration may lead to monopolistic returns. In the US, the Federal Trade Commission (FTC) can raise an objection against a merger that is

likely to substantially lessen competition or create monopolistic power. In fact, public policy in the US states that when four or fewer firms account for 40% or more of the sales in a given market or line of business, an undesirable market structure or undue concentration occurs.

Eckbo (1983) study's the horizontal mergers to test this market power hypothesis by examining the price reaction of firms when two rivals announce their intention to merge. He suggests that if a merger creates market power to the acquiring firm, then such a merger should provide abnormal positive returns to its shareholders. Thus, the merger announcement also provides abnormal returns to rival firms as the level of competition is decreased and allows monopoly profit in the industry. However, Eckbo does not find statistically significant evidence on the monopoly motive because of the lack of market price reaction of competitor firms when two other rivals in the same industry announce a combination.

2.2.1.4 Maximizing Management Utility Theory

Ismail (2008, p.73) states that '*managerial hubris (Roll, 1986) and overconfidence (Malmendier and Tate, 2004), fostered by the success of the preceding acquisitions, may lead managers to make value-destroying acquisition as they erroneously believe they can create synergies.'* Some theoretical models attempt to explain this phenomenon by including the agency problem (Jensen and Meckling, 1976) and the hubris theory (Roll, 1986) to explain why the management of the acquiring firm engages in acquisitions. The maximizing management utility theory presupposes that acquiring management engages in acquisition activity for self-serving purposes.

1. Agency Theory

Jensen and Meckling (1976) formulated the implications of agency problems and developed the agency theory in the modern literature. As managers are the agents of shareholders, agency problems arise when managers only own a small proportion of the firm equity. Because both parties (shareholder and manager) are self-interested, there are serious conflicts among them in choosing the best corporate strategy. This may cause managers to work less vigorously than otherwise and/or overindulge perquisites as the majority owners bear most of the cost. This agency problem is particular severe in a large corporation with widely dispersed ownership and where the incentive is not high enough for individual owners to spend the considerable resources needed to supervise the behaviour of managers.

Fama and Jensen (1983a and 1983b) argue that an agency problem arises because contracts are not written and enforced without cost. The cost of the agency relationship includes the costs of monitoring and bonding the agents that are not value maximizing, such as when the acquiring firm's decision systems or compensation arrangements for managers are not sufficient to control agency problems, or when managers' and shareholders' interests are misaligned. Thus, the takeover or the market for corporate control is viewed as an external control devised as a last resort act as a solution to agency problems (Manne, 1965).

Jensen and Ruback (1983) define the market for corporate control as the competition between different management teams for control of a firm's assets. If the failure of internal control mechanisms causes large costs to shareholders due to managerial excess, and this cost is reflected in current share prices, then competing teams of

managers can exploit this opportunity to acquire the firm's assets and obtain the rewards from improving efficiency.

Previous studies find that it is true that some acquisitions are driven by maximizing management utility motives (Malatesta, 1983; Shleifer and Vishny, 1989; and Morck, Shleifer and Vishny, 1990). Due to the agency conflict between shareholders and managers, managers will forgo the value maximization objective and engage in acquisitions in order to pursue their personal interest. Seth, Song and Pettit (2000), in an investigation of US cross-border acquisitions, find that 26% were instigated by managers for their own utility rather than maximization of shareholders wealth. Jensen (1986) states that acquisition is more likely to destroy value than create value. Amihud and Lev (1981) in their study, find that managers might engage in growth-oriented or empire building strategies in order to create a diversified portfolio within the firm to lower their employment risk.

Where target shareholders realize that their value to the acquirer management is to increase its own welfare, target shareholders will attempt to obtain some of this value. This may allow target shareholders some bargaining power and they will succeed in obtaining a value increase with the amount that the acquirer management can accommodate. Therefore, the more severe the agency problem, the more the targets shareholders gain.

Jensen (1986) considers the agency costs associated with conflicts between managers and shareholders over the payout of free cash to be a major cause of acquisition activity. If the firm is efficient and value-maximized for shareholders,

the excess cash flow should be paid out to shareholders. However, distributing the excess cash back to the shareholders will reduce the control resources of managers. Moreover, when they want to finance additional investments (i.e. acquisition) with new capital, it is more likely that the managers are subjected to supervision by the capital market. Thus, acquisitions are one way that managers spend cash instead of distributing a dividend to shareholders. However, this does not mean that acquisitions have to be a negative return to acquiring shareholders as the market for corporate control acts as a monitoring force, and then the agency costs for shareholders are reduced.

The free cash flow hypothesis is based on the efficient market hypothesis as well as agency theory. The assumption is that manager act in self-interest when they have access to free cash flow. Jensen (1988, p.34) states that 'free cash flow hypothesis implies that managers of firms with unused borrowing power and large free cash flows are more likely to undertake low-benefit or event value destroying mergers'. If this hypothesis is valid this might reasonably explain why acquiring firms have long-term negative returns. Gregory (2005) finds that the free cash flow hypothesis has no role in explaining the long-term UK acquirer returns. Gregory finds no support for the free cash flow hypothesis; the evidence indicates that acquirers with high cash flow perform better than acquirers with low cash flow.

2. Managerial Hubris

Personal hubris may lead managers to believe that they are creating value when they are not. Roll (1986) proposes that if there are no gains associated with the acquisitions, then the acquiring firm's management is causing the acquisition due to

hubris. The management of the acquiring firm is overconfident and believes that it can distinguish the true value of the target firm better than the market, or their ability to increase the economic value of the combined entity, when in reality it is just an overestimation.

If no gain from an acquisition is present, then this resulting wealth transfer (via the overpayment) is from the acquiring firm's shareholders to the target firm. Thus, an average increase in the target firm's value should be offset by an average decrease in the acquiring firm's value. Roll (1986) predicts that the market share price of the target firm should increase when an unanticipated acquisition is announced, while the acquiring firm's share should decrease when the unanticipated acquisition is announced. The decreased value of the acquiring firm might be due to the management's miscalculation of the target firm's value or lack of recurring acquisition decision by the management.

Among the earliest published papers from academic researchers that described the hubris is Firth's (1980) study of UK takeovers, which finds that target firm's gain and acquiring firms lose. The average total change in market value of the two firms is £-36.6 million. Firth finds that the premium paid to the target firm as a fraction of the size of the acquiring firm was related to the percentage loss in the acquiring firm's share values around the takeover period. Firth (1980, p.254) concludes that '*this supports the view that the stock market expects zero benefits from a takeover, that the gains to the target firm represent an overpayment and that the acquiring firm's shareholders suffer corresponding losses'*. Other studies like Bradley, Desai and Kim (1988); Jarrell, Brickley and Netter (1988) and Goergen and Renneboog

(2004) find that acquiring firms experience a decreasing value and suffer from managerial hubris in acquisition events.

Thus far, it appears in this section that acquisition motivations (i.e. synergy, information, agency problem and managerial hubris) have a difference in influential effect on the acquiring and target firm returns discussed. The next section provides a discussion on target status and its impact on the acquiring firm's returns, both in the short- and the long-term.

2.2.2 Target Status

Acquiring firms may be interested to acquire other listed firms or unlisted firms. Acquiring a listed target is referred to as a 'public acquisition' whereas acquiring an unlisted target is called a 'private acquisition'. Although there is a large body of literature discussing the issue of corporate acquisition events on firm returns, these are largely based on the acquisition of listed firms. In the case of acquiring an unlisted firm, the expectation of shareholders of the unlisted target towards acquisition may be very different from those of listed targets. In this context a listed target is also referred to as a "public" target while the unlisted target is referred to as a "private" target.

It is important to discuss the impact of target firm status on the value of the acquiring firms. Draper and Paudyal (2006) states that the UK takeovers of privately held firms represent more than 80% of all takeovers, and Ang and Kohers (2001) report that the US takeovers of privately held firms also represents more than 80% of all takeovers. Despite the significance of acquisitions of privately held firms,

which comprise an important segment of the entire takeover market, a study of such takeovers and their impact on the wealth of shareholders remains largely unexplored.

Among the earliest papers describing the impact of target firm status to acquiring firm returns is Chang (1998) who finds a wealth effect to acquiring firms that is related to the target firms' status. The results indicate that acquiring shareholders gain when buying an unlisted (private) target but lose when buying a listed (public) target around the announcement period. Similarly, Fuller *at al.* (2002) finds that acquiring firm's shareholders gain when buying a private target but lose when purchasing a public target. There are several possible explanations as to why a private acquisition should provide greater wealth effect to the acquiring firms as opposed to a public acquisition.

2.2.2.1 Managerial Motive Hypothesis

The agency theory suggests that where there is a separation of ownership and control of a firm, the potential for agency problems exists because of the conflict of interest between the shareholders and the agent (Jensen and Meckling, 1976; and Fama and Jensen, 1983a). Although the acquiring firm's shareholders can discourage managers from diverging from the shareholders' interests by devising appropriate incentives for managers and then monitoring their behaviour, this is, unfortunately, complicated and costly.

Acquiring firm's managers may seek either to maximize their private benefits accruing to them or to maximize shareholders' wealth. The private benefits may refer to the size and the prestige of the firm that the manager's control. Publicly-listed firms are generally larger and better known (more prestigious) than private firms. Draper and Paudyal (2006) suggest that acquirers are more motivated by 'private benefits' when acquiring a public target. However, when acquiring a smaller and less well-known unlisted private target firm, acquirers are more motivated by the potential synergies from the acquisition and a desire to maximize shareholders' wealth. This being the case, acquirers tend to overpay public targets and not overpay the private targets.

Managers acquiring unlisted private target firms that are motivated by a desire for profit maximization are, therefore, not willing to pay high premiums. Thus, acquisition announcements of an unlisted private target should result in a non-negative impact on the acquiring firms. Consequently, the market may observe the acquisition of private target firms more favourably than the acquisition of public targets. This suggests that acquirers of private targets should gain more than acquirers of public targets.

To test the predictions of managerial motives, Draper and Paudyal (2006) study the UK acquiring firms for public and private acquisitions. They find that acquirers of publicly-listed targets suffer a significant loss of 0.4% around the announcement period. In contrast, acquirers that acquire unlisted private targets gain a significant positive abnormal return of 2.19% during the announcement period. The evidence of Draper and Paudyal's study supports the prediction of the managerial motive.

2.2.2.2 Liquidity Hypothesis

One possible explanation for the difference in market reactions to the public acquisitions versus private acquisitions is that acquirers receive a better price when buying unlisted private target firms (Chang, 1998; and Fuller *et al.*, 2002). This is due to the liquidity effect, as private targets cannot be bought and sold as easily as public target firms. This lack of liquidity makes the private acquisition less attractive and, thus, less valuable as an investment. The acquirer considers this as a disadvantage and captures this discount when acquiring the unlisted private firm. Koeplin, Sarin and Shapiro (2000) find that unlisted private firms are purchased at an average of 18% (book multiples) or 20% to 30% (earnings multiples) discount compared to equivalent public firms.

Officer (2007) focuses on the liquidity problem of unlisted target that are not publicly traded, and therefore costly to collateralize or sell. It is found that the sale prices for unlisted targets are affected by both the need for and availability of the liquidity provided by the buyer. He documents that unlisted targets sell at a discount of 15% to 30% on average relative to control-related trades of public target. This evidence is consistent with the liquidity constraints of unlisted targets; therefore, by selling nontraded assets, private target have to accept significantly higher discounts.

Weston *et al.* (2001, p.221) notes that '*zero returns to acquirers are consistent with a competitive corporate control market in which firms earn normal returns in their operations'*. Thus, if the acquisition market is competitive, the acquisition itself will be a zero net present value transaction, and the acquiring firm should have no abnormal returns around the announcement date. However, Draper and Paudyal

(2006) argue that this outcome depends on the availability of information to generate competition among potential acquirers. Information on a public listed target is publicly available and easy to obtain for potential acquirers to evaluate and compete for control. In contrast, private targets information used to be poor and competition may also be weak. As such, acquiring firms can experience positive returns because the market for private target firms is illiquid, the acquirers have more bargaining power and are likely to cause under-payment for the private target firms. This suggests that acquirers of private targets should gain more than acquirers of public targets.

Since private target firms are not listed on stock exchanges and there is no observable price to serve as an objective measure of market value, the acquirer cannot get publicly tested information about these targets. Acquiring firms have to decide on their share prices with incomplete information and face higher risk than making offers for public targets. Hence, buying a private target is more risky than buying a public target.

2.2.2.3 Bargaining Power Hypothesis

Private firms are normally closely held and are also normally controlled by family members or a small group of partners. Because they are closely held, managers of private firms more concerned and committed to the impact on important decisions on firm value. In acquisitions this is reflected in their choice of the timing and the identity of the buyer. Ghosh and Ruland (1998) and Draper and Paudyal (2006) suggest that closely controlled firms may have significant bargaining strength allowing the owners to receive a better price for their firm. This argument

contradicts previous arguments in predicting lesser gains to acquirers of a private target compared to acquiring a public target. For example, unlike publicly-listed target firms, unlisted private firms do not have to deal with public pressure from less-informed outside investors that may push the firm sell at the time when the market undervalues their firm's share (Ang and Kohers, 2001).

Mantecon (2008) examines the factors that affect the relative bargaining power of acquirer and target firms. The difference in management ownership structure between public and private firms has theoretical implications on the target's bargaining position. Mantecon (2008, p.894) states that '*buyers gain in the acquisition of private targets because informational uncertainty, limited access to external capital markets to finance growth opportunities, and agency problems weaken a target's bargaining position.'*

Overall, prior studies do not support the prediction of the bargaining power hypothesis that suggests acquirers may need to pay high premium to acquire an unlisted private target (Change, 1998; Ang and Kohers, 2002; Fuller *et al.,* 2002; and Draper and Paudyal, 2006).

2.2.2.4 Methods of Payment in Private Acquisitions

Basically there are two methods of payment in an acquisition transaction, i.e. cash settlement and share settlement, regardless of acquiring listed or private firms. Previous studies indicate that methods of payment in acquisition yield different impacts on acquiring firm's share price around the announcement period. The usual argument for method of payment effect is that a cash settlement has better returns

for acquirer shareholders because the market views this as a positive signal that the acquiring firm's share is undervalued. Once again, such evidence is based on the experience of acquirers of the public target. Chang (1998), Ang and Kohers (2001) and Draper and Paudyal (2006), provide useful views of these arguments for information asymmetry and corporate monitoring reasons to anticipate a difference in market responses to the method of payment used in acquiring listed and unlisted targets. These hypotheses are discussed below.

1. Monitoring Role

The cost of resolving the conflicts of interest between managers and shareholders is called agency cost and these costs are defined as the cost of monitoring management in pursuing activities that increase the value of the firm. Ang and Kohers (2001) supported the agency theory and suggest that agency costs will be lower if some shareholders or lenders actively monitor managerial activities (corporate monitoring hypothesis). If the acquirer buys unlisted targets through shares exchange, the prior owners of the target may end up holding a substantial proportion of the shares of the combined firm and, hence, monitor managerial activities more closely or facilitate takeovers (Shleifer and Vishy, 1988).

By definition, unlisted private firms are closely held and may be associated with lower internal agency conflicts compared with public listed firms (Ang and Kohers, 2001). Bolton and Von-Thadden (1998), when analyzing the significance of ownership structure, find that the concentrated ownership structure form of privately held firms provides more effective monitoring and, thus, a closer alignment of interest within the firm.

The use of share settlement to acquire unlisted private targets has further implications due to the particular ownership structure of private firms. When the acquirer buys unlisted private targets through stock offers, target shareholders may end up as significant blockholders of the acquiring firm in the post-acquisition period (Chang, 1998). Consequently, the target's shareholders may play a monitoring role of the acquiring management in ensuring the post-acquisition activities are in the shareholders interest. This might help to remove or reduce agency problems, thus, increasing bidder value.

Draper and Paudyal (2006) analyse the acquiring firm returns by the methods of payment and target status to examine the validity of the corporate monitoring role hypothesis. They find that when payment is in shares, acquirers of private targets gain more than the acquirers of public targets. However, the evidence that acquirers paying with shares for unlisted private targets gain is not more statistically significant than the cash acquirers. Draper and Paudyal conclude that the evidence only offers partial support to the corporate monitoring hypothesis.

2. Information Asymmetry

The signalling model of Leland and Pyle (1977) and Myers and Majluf (1984) suggest that due to information asymmetry, managers prefer cash offers if they believe that the acquiring firm's shares are undervalued. As such the method of payment acts as a signalling device; investors interpret cash offers as good news and share offers as bad news about the acquiring firm's stock value. A number of studies support the information hypothesis and suggest that share offers to the public target conveys 'bad' news and the acquiring firm's shares decline around the announcement period (see

e.g., Wansley, Lane and Yang, 1983; Travlos, 1987; Amihud, Lev and Travlos, 1990; Isa, 1994; and Faccio and Masulis, 2005).

Concentrated ownership is often found in privately held firms as compared with publicly listed firms, which generally have more dispersed ownership. When the acquirer offers share payment to the shareholders of unlisted private targets, the asymmetry information problem can be reduced. The acquiring firm managers have to disclose the private information to the target shareholders. This provides the target shareholders with a powerful incentive to examine the acquiring firm's prospect carefully, as they will end up holding a substantial amount of the acquiring firm's shares after the acquisition (Chang, 1998). Thus, the target acceptance to hold a large block of shares conveys to the market favourable information about the acquiring firm. Draper and Paudyal (2006) suggest that the private information held about the acquirer (assessed by the target's owners) is positive. The announcement of the acquisitions of an unlisted private firm and payment with share offers should convey positive information to the market and result in a positive return to the shareholders of the acquiring firms.

Thus far, this section reviews the evidence on target firm status and its impact on the acquiring firm returns around the announcement period. Though it might be difficult to convincingly document that shareholders of acquiring firms gain from private acquisition, Capron and Shen (2007, p.891) state that *'the lack of research on acquisition of private targets raises the question of whether some of the key established findings of research on acquisition hold for private targets'.* Available empirical evidence is limited primarily to Chang (1998); Ang and Kohers (2001)

and Fuller *et al.* (2002) based on US acquisition experience, and Draper and Paudyal (2006) on the UK market. In addition, there is very little research, especially for methods of payment on acquiring firm performance when the target is an unlisted private firm. There are a number of explanations relative to methods of payment on acquiring and target firm performance. However, the evidence to date has, generally, provided inconclusive results on the impact of methods of payment on acquiring firms' returns. The next discussion is the choice of methods of payment on acquiring and target firm performance.

2.2.3 Methods of Payment in Acquisitions

The classical theory by Modigliani and Miller (1958) states that in the perfect market (no tax world) the means by which investments are financed is irrelevant for the total value of the firms. Miller (1977) takes the argument even further and extended this irrelevance proposition to a case where tax exists. However, casual observation suggests that firms are not indifferent to the methods of financing even when it has no effect on the value of the firm.

Typical financing decisions of a firm normally involves determining the optimum mix between debt and equity, and the type of debt and equity the firm should use to raise funds in order to maximize the value of the firm. Whether a firm's capital structure or its mix of debt and equity affects its stock price is not a purely academic concern only, it also has practical implications. If the capital structure does not matter to a firm's value, then the management should not devote much time in choosing the firm's financing strategy for new investment. But if it does matter, management should seek an optimal capital structure for maximizing the firm's value. Thus, the acquiring

management's decision in relation to the method of payment cannot be made without knowledge of the capital structure.

As discussed earlier (Chapter 1, section 1.8), the methods of payment in acquisitions includes pure cash payment, pure share payment, and a mix of shares and cash. The cash amount is usually financed using accumulated retained earnings (financial slack) or debt issues prior to acquisition. The choice of methods of payment is strategic for several economic reasons, such as tax effects, its impact on the conditional expected value of the acquisition to asymmetrically informed acquirers and targets, and capital structure and corporate control. The next section provides discussions concerning why the management of acquiring firms choose cash or share offers to finance acquisitions.

2.2.3.1 Taxes

Myers (2001) argues that when tax consideration is included in the choice of financing strategy there is a gain of firm value through the creation of a tax-shield. This is due to the fact that the interest payments on debt are tax deductible. For the personal taxes, the impact on firm value is somewhat ambiguous due to the difference between taxes on income and on capital gains.

Previous literature indicates that taxes have been considered as an important factor in motivating merger and acquisition activity. Hayn's (1989) study states that tax aspects affect the makeup of the merger when the target firm's tax status has significantly influenced share returns of both the target and acquiring firms following the acquisition announcement.

Betton, Eckbo and Thorburn (2008, p.26) states that:

> "*…the US Internal Revenue Code (IRC) requires target shareholders to immediately pay capital gains taxes in all-cash purchases. If the acquisition qualifies as a tax-free reorganization under section 368 of IRC, for example by using all-share as method of payment, target shareholder capital gain taxes are deferred until the shares received in the deal are sold. There is a carry-over of the tax basis in the target to the acquiring firm".*

Given these differentials of tax treatment, there is little doubt that taxes have a significant role in the acquirer's choice of methods of payment. The most difficult issue is whether the acquirer in pure cash offers must pay target shareholders compensation up front for the realization of a potential capital gains tax penalty and for the value of the target's unused tax benefits. Gilson, Scholes and Wolfson (1988) find that targets with low-cost, substitute ways of capitalizing on unused tax benefits that will force acquirers to pay for these in the deal.

Due to the difference in tax treatment, early studies including Wansley, Lane and Yang (1983); Carleton *et al.* (1983) and Huang and Walking (1987) on US data, and Frank, Harris and Mayer (1988) on acquisition in UK, argue that target shareholders will receive larger acquisition premiums in pure cash offers than in pure share offers, where the difference is compensation for the capital gains tax penalty in the cash offers acquisition. While, the acquirer are willing to pay a higher cash price because the cash acquisition allows them to 'step up' the tax bases of the acquired assets when their fair market value exceeds book value. Such 'step up' produces higher tax deductible depreciation allowances not available in pure share offers. This causes the acquiring firm to have higher depreciation expenses and higher after-tax cash flows when the acquisition is consolidated by the acquirer. The US tax law can provide an incentive for cash acquisition in cases in which market values exceed

book values of acquired firm's assets. Such a 'step up' basis is not available in UK and Malaysia.

Wansley, Lane and Yang (1983) examine the differences in target returns after controlling for both takeover type and method of payment, and report that evidence is consistent with the tax effect. They find that target firms' shareholders in cash acquisitions earn, on average, 33.54% excess returns from 40 days prior to the acquisition announcement day. This excess return is almost double compared to the shareholders of target firms (excess return 17.47%) when the takeovers are financed by shares-settlement. Wansley, Lane and Yang conclude that this return difference is significantly related to the tax effect that requires a larger takeover premium for a cash settlement than for a share-settlement to compensate the target firm's shareholders for capital gains tax burdens. It is also due to the regulatory requirements that favour cash settlements as the method of payment (share-financed acquisition must gain approval from the Securities and Exchange Commission through a registration statement). Another important insight of their study is that the increasing popularity of cash acquisitions during that period, generally, has a higher acquisition premium.

Huang and Walking (1987) provide further evidence supportive of this tax effect. To reduce ex-post selection and classification bias, they use acquisition announcements only rather than completed acquisitions. They also control for the independence of methods of payment, type of acquisition (i.e., tender offer or merger), and target managerial resistance on target firm returns. After controlling for the type of acquisition and managerial resistance, Huang and Walking still find that target firms in

cash offers are associated with significantly and substantially higher returns than those target firms in share offers. The results lend additional and strong evidence to the tax hypothesis that target shareholders demand higher acquisition premiums in situations that need to pay immediate taxes on their gains.

Following the work by Wansley, Lane and Yang (1983); Carleton *et al.* (1983); Huang and Walking (1987); Frank, Harris and Mayer (1988) and Brown and Ryngaert (1991) consider no asymmetric information about the value of the target firm. The acquisition offer in choosing the method of payment is based on the tax consequence in a setting consistent with the US tax code. Brown and Ryngaert (1991) find that low valuation acquirers choose share offers to avoid the capital gains tax penalty and high valuation acquirers make cash offers to avoid issuing undervalued shares. They conclude that the information revealed by acquirer's in the choice of methods of payment depends on the tax cost differential between taxable and non-taxable offer. Thus, the acquirer's announcement returns should depend on tax parameters. Brown and Ryngaert (1991, p.667) states that:

> "…*when there are large tax disincentives to cash offers, the market's priors are that a nontaxable offer is most probable. Consequently, a bidder making a cash offer should experience large positive revaluation while those choosing stock should experience a relatively small negative revaluation. The choice of method of payment and resulting acquirer revaluations are also affected by changes in the tax code. For example, the Tax Reform Act of 1996 reduces the tax benefits of cash offers".*

Other evidence on tax effects (on the acquiring firm) is less clear. For example, Carleton *et al.* (1983) examine the role of methods of payment in mergers. They use the conditional logit model, which considers the probability that any firm will be under three different categories: firm not acquired; firm acquired by a cash settlement; and

firm acquired by a share settlement. Carleton *et al.* (1983, p.825) conclude that *'lower dividend payout ratios and lower market-to-book ratios increase the probability of being acquired in cash takeover relative to being acquired via an exchange of shares'.* They further argue that the low market-to-book ratios would increase the probability of use of cash acquisition, and is consistent with the differential tax treatment as market-to-book ratios approximate the level of capital gains liability of target firm shareholders.

Assuming that all things are constant, the dividend clientele effect suggests that low dividend paying firms attract people in high tax brackets, and that they would prefer share-settlement to cash-settlement takeover to avoid capital gains tax. However, the findings of Carleton *et al.* (1983) are inconsistent with this dividend clientele explanation. Instead the authors state that taxable cash takeovers are preferred because they provide a corporate tax advantage to the firm due to higher depreciation tax shields.

On the other hand, Franks, Harris and Mayer (1988) examine the methods of payment of a large set of acquisitions in the UK to test the validity of tax and information hypotheses. The results show that takeover premiums were greater in cash settlements (target firms) even before the introduction of capital gains tax. They find that it is difficult to explain their results based on the tax effects argument; moreover, the capital gains tax does not appear to be the primary determinant of the financing pattern in the UK, particularly in a period in which there were substantial variations in tax rate.

Similarly, Auerbach and Reishus (1988) classify both acquiring and target firms into four categories according to their tax status before the acquisition to measure the potential importance of tax losses and credits in motivating mergers or acquisitions. These categories are: (1) firms that paid income taxes and did not have any losses nor tax credit carried forward; (2) non-taxable firms that did not have losses nor tax credit carried forward; (3) firms with tax credit with no losses and tax credit carried forward; and (4) firms with losses and tax credit carried forward. They find that even in cases where there are significant tax benefits, there is no strong evidence that they were the driving factors in acquisitions, and none of the measures are statistically significant or important in explaining the choice of the methods of payment in acquisition.

2.2.3.2 Information Asymmetries

Previous studies suggest that the methods of payment may be economically important and give rise to acquisition premium effects even in the absence of taxes. When the acquirers and target are asymmetrically informed about the true value of their respective shares, the methods of payment may cause information revelation to the market. This information will also affect both the acquiring and target division of synergy gains and the probability that the acquisition offer is successful.

Myers and Majluf (1984) argues that acquisition is motivated by the adverse selection while Myers (1984) states that it is motivated by a financing 'pecking order'. The pecking order theory assumption of information asymmetry is related to signalling considerations. Assuming that a firm announces an issue of shares; it is good news to investors if it reveals a growth opportunity or high quality project with positive net present value. It is bad news if managers believe the shares are overvalued by investors

and try to issue overvalued shares. Equity issues will only occur when the debt is costly, for example, because the firm is already at a dangerously high debt ratio where managers and investors foresee costs of financial distress.

Leland and Pyle (1977) and Myers and Majluf (1984) have introduced the signalling model to explain the share price reactions in the event of mergers and acquisitions. Myers and Majluf address the issue of information asymmetry between the firm's managers and outside investors over the value of the firm's shares. They claim that the market believes managers of the acquiring firm are acting in the best interests of shareholders and will not issue shares, unless the shares of their firm are overvalued. Thus, when the acquirer uses share offers to acquire a public listed target firm, it transmits the negative information that the acquiring firm share is overvalued and immediately drives down share prices. While the use of cash-settlement signals positive information, hence it is expected to have a positive impact on the share prices of the acquiring firms.

Asquith and Mullins (1986) and Franks, Harris and Mayer (1988) explain that share prices fall not because investor's demand for equity securities are inelastic, but because of the information investors infer from the decision to issue; it turns out that the bad news always outweighs the good. In contrast, if the managers of acquiring firms believe that their firm stock is undervalued, they will prefer a cash offer. The minimum offer price will be the current market price while the maximum price will depend on the synergy resulting from the takeover.

Empirical evidence supports Myers and Majluf's (1984) argument for the methods of payment hypothesis, and indicates that share settlement acquisition tend to cause a price drop in the acquirer's share on the announcement day when the target is a public listed firm.[6] However, acquirer announcement returns are nonnegative (or even positive) in all-share offers for unlisted private targets.[7]

Further, Travlos (1987) also provides evidence supportive of the information effect of methods of payment in acquisitions on the value of the acquiring firm. He finds that announcement returns to acquirers in share-financed are associated with a significantly negative return, while cash-financed are associated with positive returns, irrespective of the merger or tender offer transaction. Travlos (1987, p.944) concludes that '*the finding is consistent with the signaling, which implies that financing a takeover through exchange of common stock conveys the negative information that the bidding firm is overvalued'*. Additionally, the evidence of Travlos' study provides an explanation for the differences in findings between earlier studies on mergers and tender offers. He finds that tender offers usually use cash-settlements and mergers usually use share-settlements, the difference in earlier findings might be due to the failure to control for the method of payment.

Other studies such as Bellamy and Lewin (1992) and Da Silva *et al.* (2000) on acquisition in Australia have enriched the signalling hypothesis. They find that different methods of payment in acquisition have different signalling implications. Similarly, Isa (1994) studies the share price behaviour around acquisition announcement in the Malaysian market; the results indicate that targets of cash offers

[6] Travlos (1987); Asquith, Burner and Mullins (1987); Brown and Ryngaert (1991); Linn and Switzer (2001); and Moeller and Schlingemann (2004).
[7] Chang (1998), Fuller, Netter and Stegemoller (2002), and Moeller, Schlingemann and Stulz (2004).

earn positive returns while targets of share offers do not. In contrast, acquirers who use cash financing gain abnormal returns while those who use share offers quickly lose earlier gains.

Notwithstanding the above, the information signalling is principally responsible for the higher return to acquirers making cash acquisitions, however, not all the evidence points in this direction. For instance, Franks, Harris and Mayer (1988) examine the effect of methods of payment in the US and UK acquisitions. They find that US acquirers earn significantly positive cumulative abnormal returns in cash takeovers and significantly negative cumulative abnormal returns in share takeovers, while UK acquiring firms do not earn significant abnormal performance regardless of the method of payment.

Martin (1996) examines the methods of payment in acquisitions and the investment opportunities for the acquirers. The results support the idea that higher acquiring firms investment opportunities lead to an increased use of share-financing in corporate acquisitions. One reason why cash acquirers may not always earn higher returns than share acquirers is because share financing puts less constraints on managers' current investment and future financing plans. The Australian evidence also indicates that cash acquirers do not always earn higher returns than share acquirers. Bugeja and Walter (1995) report that acquirers who made pure cash offers earned negative returns, while acquirers who made pure share offers earned positive returns, and the difference is significant at the 1% level.

Loughran and Vijh (1997) examine the long-term performance of firms in acquisitions, by splitting the sample into the mode of acquisition (merger or tender offer) and methods of payment. They report that over the five-year period post-acquisition, the share offer mergers earned significantly negative excess returns of 25%, while the firms involved in cash tender offers earned significantly positive excess returns of 61.7%. Loughran and Vijh observe that the large post-acquisition returns are inconsistent with market efficiency. Similarly, Gregory (1997); Rau and Vermaelen (1998) and Mitchell and Stafford (2000) support the information asymmetry hypothesis in which bidding firms with cash offer payments experience higher abnormal returns in the long-term post-acquisition period.

2.2.3.3 Capital Structure and Control Motives

The study of capital structure attempts to explain the equity and other financing sources use by acquiring firms to finance the acquisitions. The choice of method of payment in acquisitions might also depend on the financial conditions of the target and acquiring firms. Generally, cash offers are financed with additional borrowing;[8] therefore, cash offers will increase debt and be very costly for acquiring firms that are already burdened by existing debt. Consequently, the cash offers may cause the acquiring firm financial distress. On the other hand, if acquiring firms have excess free cash, the firm may use incentives to use cash offers instead of share offers in an acquisition, particularly, if the acquisition is substituted for unprofitable internal investment and projects. Thus, the payout of cash offers in acquisition will increase the acquiring firm's value.

[8] Ghosh and Jain (2000) and Martynova, Oosting and Renneboog (2006) find that cash offers are frequently financed with debt.

Myers (2001) discusses the trade-off theory and the pecking order theory to explain the choice of financing strategy. The trade-off theory of corporate financing is built on the concept of target capital structure that balances various costs and benefits of debt and equity. These include the tax benefits of debt, and the costs of financial distress and bankruptcy costs. The trade-off model states that there might be an optimal leverage level of firm value. For example, the acquiring firms seek debt levels to balance the tax advantages of additional debt against the costs of possible financial distress and bankruptcy costs. Travlos and Papaionnou (1991) examine the effects of both methods of payment and capital structure changes on the acquiring firm's returns around the announcement of takeovers. They find that cash offers have higher returns than share offers, and these returns are affected by perceptions of change in the firm's capital.

The pecking order theory suggests that managers will prefer to use retained earnings as their main source of fund for investment (acquisition). If internal cash flow is not sufficient, then the preference is to use the following order of financing sources: debt, convertible securities, preferred stock, and common stock. Contrary to the Modigliani and Miller theorem and trade-off model, there is no notion of optimal leverage in the pecking order theory.

In the context of acquisitions there are two key assumptions about financial managers. First, is the information asymmetry. Myers and Majluf (1984) states that managers do not attempt to maintain a particular capital structure. Instead, corporate financing choices are driven by the costs of adverse selection that arise as a result of information asymmetry between better-informed managers and less-informed

investors. The managers know more about the company's current earnings and future growth opportunities compared to the outside investors; if possible this 'private' information may keep proprietary. Therefore, using internal funds makes it possible for managers not to disclose the information about the company's investment opportunities and potential profits to be realized from investing them.

The second assumption in the pecking order theory is that managers act in the best interests of the company's existing shareholders. Myers and Majluf (1984) state that managers can even skip a positive net present value project if it requires the issuing of new equity (i.e. common stock). This is because the project will give much of the project's value to new shareholders at the expense of the old shareholders.

Among the earliest papers that discussed the acquisitions in relation to capital structure choice are Stulz (1988) and Harris Raviv (1988). They find that acquiring managers who have control and have significant stakes in their firm prefer cash offers over share offers to avoid diluting their holding and control. Other studies such as Amihud, Lev and Travlos (1990); Martin (1996) and Jung, Kim and Stulz (1996) in the US observed similar phenomenon, that the higher managerial ownership of the acquiring firm is associated with a larger probability of the acquisition being financed by cash offers rather than share offers.

Similarly, in the study of European mergers by Faccio and Masulis (2005), they find that manager incentives to choose cash offers are particularly strong in acquirer firms with relatively concentrated share ownership structures. Furthermore, their results support a pattern of European acquirers choosing share financing with greater

frequency as their financial condition weaken. Faccio and Masulis (2005) also find that when an acquirer has special access to bank borrowing due to interlocking directors, cash financing of the acquisition deal is more likely. Martynova and Renneboog (2006) study acquisitions in Europe, and find a relation between the quality of a country's corporate governance system and the market reaction to share as payment form. Their evidence indicates that all-share offers are more likely in countries with greater levels of shareholders right protection.

However, target firm managers who have control may want to retain ownership and control in the combined firm after the acquisition. Therefore, they are likely to negotiate to receive share exchange offers instead of cash offers for the acquisition. Ghosh and Ruland (1998) find that an increase in the percentage of managerial ownership in the target firm will increase the likelihood of using share settlement. The evidence also shows that target firm's managerial ownership is a more important factor than the acquiring firm's managerial ownership in explaining the method of payment in acquisitions.

2.3 EMPIRICAL EVIDENCE

The success of an acquisition may be evaluated from two perspectives. First, we can evaluate mergers and acquisitions from the perspective of wealth creation to the acquiring and target shareholders, or calculate the combined effect. Second, we can also evaluate acquisitions on these affect on the various interests of the stakeholders; such as bondholders, managers, employees, and customers. Since the interests of these stakeholders diverge, an acquisition may be beneficial for one type of

stakeholder but detrimental for other types. However, financial studies generally focus on the impact of mergers and acquisitions on shareholders wealth.

Empirical studies assume that the merger and acquisition announcement brings new information to the market, such that investors' expectations about the firm's prospects are updated and reflected in the share price. The abnormal return is equal to the difference between the actual share returns and an expected (benchmark) share return. Apart from abnormal returns measured over the short- and long-term, some studies calculate the operating performance of the merging firms. This generally consists of a comparison of accounting measures prior to and subsequent to acquisition.

2.3.1 Short-Term Returns

This section gives an overview of event studies that investigate the issue of short-term abnormal return to acquiring and target firm shareholders, on the basis of daily share price data. Short-term refers to studying the share price performance over a limited period of time around the announcement date. The event window varies considerably between studies.The most common models used to calculate abnormal returns are the market-adjusted model, market model and risk-adjusted models such as the CAPM or the Fama-French-Cahart four-factor model.

The empirical works in the US and the UK are unanimous in their conclusion that acquisition creates value for the target shareholders. However, the evidence on the wealth effects for the acquiring shareholders are mixed, some studies show a small positive abnormal return whereas others show a small loss. Table 2.1 is a

comprehensive table providing the summary of major studies relating to short-term performance around the mergers and acquisitions announcement, covering both developed and developing markets. Panel A summarizes the evidence related to the US market; Panel B summarizes evidence related to the UK market, while Panel C contains evidence related to the Australian, Hong Kong and Malaysian markets.

2.3.1.1 Target Firm Returns

The studies in Table 2.1 show that the share prices of target firms significantly increase at and around the merger and acquisition announcement period. The empirical works show that the impact of acquisition announcements on targets' share returns is similar in the US and UK markets. Empirical works in the US (e.g., Dodd, 1980; Asquith, Bruner and Mullins, 1983) report that the target firms' shareholders gain 4% on the announcement day after the first public announcement of a merger proposal. The UK studies also find significant gains to targets shareholders (e.g., Franks and Harris, 1980; and Holland and Hodgkinson, 1994). In the developing stock markets, Cheung and Shum (1993) report that the Hong Kong targets have significant returns of 5.51% on the announcement day, and that the Australian market is 6.43% (Bellamy and Lewin, 1992). In the Malaysian market, Isa and Lim (1993), Mat-Nor (1993a), and Isa (1994) report that on the announcement day, target shareholders gain about 1%.

The empirical studies, such as Bradley, Desai and Kim (1988) and Schwert (1996) show that the targets' share price reactions are not limited to the announcement day only but appear a few weeks prior to the public announcement of acquisition. Schwert (1996) finds that target's share price starts reacting around day -42 prior to

the initial public announcement of the bid. Few studies report that the cumulative average abnormal return for the day before acquisition announcement is substantial and often exceeds the announcement effect itself. With regard to the returns for the target before the announcement event, the CAR is 8.27% to 21% over a period of 20-days prior to the announcement day. These returns may imply several possibilities such as full anticipation of the event, rumours, leakage of information or insider trading. Bradley (1980) suggests that information leakage regarding a tender offer occurs over the five days before *The Wall Street Journal* announcement. Mat-Nor (1993a) indicates that during the last 116 days prior to the announcement date, price performance shows a dramatic rise of about 25.89%. This might reflect acquisition information leakage to the market.

In Table 2.1, about twenty studies analyse the target firm returns around the pre- and post-announcement period. The evidence indicates that the magnitude of the pre-and-post announcement CAR gains is similar across all developed stock markets. The US targets earn statistically significant CAR ranging from 28% to 40% in tender offer over -5 to +5 days surrounding the announcement date. While the UK target firms CAR range from 14% to 24%.

Schwert (1996), Franks, Harris and Titman (1991) and Franks and Harris (1989) further classify the sample of acquisitions into tender offers and mergers. They find that target shareholders earn substantially higher returns in tender offers than mergers, and that merger transactions usually use stock-for-stock as the method of payment, and cash bids prevail in tender offers.

Previous studies also find that pure cash offers are more profitable for target shareholders than are pure share offers. Frank, Harris and Titman (1991); Andrade, Mitchell and Stafford (2001) and Goergen and Renneborg (2004) show evidence that when the method of payment is cash, the abnormal returns to targets are 13% to 35%. Two possible reasons have been suggested for the higher returns to target cash acquisitions. First is that when targets receive stock from acquiring firms as payment they share in the future performance and risks of a combined enterprise. Second, the acquirers using cash settlement are showing greater confidence in the value of the target, while those using share settlements may imply that their shares are overvalued.

To summarize, the general findings of previous studies are quite consistent in showing positive abnormal returns to target firms in the period around the acquisition announcement. The CARs can be separate into those realized in pre-announcement, the announcement returns, and those realized in post-announcement. When controlling for the methods of payment, previous studies report that target firms with cash offers earned higher abnormal returns than target firms with share offers.

2.3.1.2 Acquiring Firm Returns

Table 2.1 shows that there is a considerable contrast between the large share price returns of target firms and the frequently negligible returns of acquiring firms. Indeed, immediately around the announcement, acquirer firms realize abnormal returns insignificantly different from zero, which may imply that the market expects them to earn only their cost of capital. Dodd (1980) uses the effective date of merger

as the event date. Dodd find that there is no difference in returns regardless of either day 0 selected as the date of approval of the merger or date of the first announcement of the merger.

The US evidence, such as Chang (1998) and Walker (2000), reports negative abnormal returns ranging from -1.3% to -0.7% around the announcement date. While the studies of Lang, Stulz and Walking (1989) and Dennis and McConnell (1986) report insignificant positive abnormal returns of 0.1% and 1.07%, respectively. On the other hand, Dodd and Ruback (1977); Bradley (1980) and Bradley, Desai and Kim (1988) report small but statistically significant positive abnormal returns to the shareholder in the case of tender offers, while Asquith, Burner and Mullins (1983) in the case of a merger. In contrast, the UK studies, such as Sudarsanam and Mahate (2003) report negative returns of 1.39%. When considers the acquirer's share price run-up prior to acquisition announcement, the CAR is mostly insignificant. For example, Dodd (1980); Dennis and McConnell (1986) and Andrade, Mitchell and Stafford (2001) report that the pre-announcement CAR gains to acquirer is close to zero and insignificant.

A number of studies report that acquirers' gains depend on the acquired target firm status (private or public acquisitions). Acquiring of a privately held target is an attractive option for maximising firm value, the US studies such as Chang (1998); Fuller, Netter and Stegemoller (2002) and Moeller, Schlingemann and Stulz (2004), and the UK study (Draper and Paudyal, 2006) agree that acquirers of private acquisitions have substantially higher returns than acquirers with public acquisitions. Furthermore, they find that acquirers with cash offers in private acquisition have

higher returns than share offers. In contrast, Change (1998) show that acquirer with share offers in private acquisition is associated with significant positive abnormal returns and exceed those in cash offers.

Prior works also indicate that the acquirers returns surrounding the acquisition announcements largely depends on the type of acquisition, and the choice of method of payment. The US studies unanimously agree that the acquiring firms with cash offers earn a significant positive abnormal return, and these acquisitions substantially outperform the all-share offers. Travlos (1987) finds positive but insignificant abnormal returns of 0.22% to the acquirer in cash tender offers, and 0.33% in mergers. Other US studies, such as Franks, Harris and Titman (1991) and Ang and Kohers (2001), report a range of -3% to -1% for acquirers that use share offers. However, Moeller, Schlingemann and Stulz (2004) find significant positive abnormal returns for both cash acquirers and share acquirers, 1.38% and 0.15%, respectively. In the UK studies, the evidence indicates that no significant gains or losses are incurred to the acquirer, regardless of cash or share finance. In the Europe studies, Goergen and Renneboog (2004) show that acquirer's CAR in share offers deal significantly exceed those in cash offers deal on the announcement period (day -1 to 0).

The bid type (hostile versus friendly) and acquisition strategy also determines the acquiring firm returns. The return in friendly acquisitions is generally significantly higher than merger transactions, which are in turn significantly larger than those of hostile bids. Franks, Harris and Titman (1991) and Goergen and Renneboog (2004) show that hostile bids decrease the value of the acquiring firm by 2% to 3%. When

consider the impact of the acquisition strategy, previous studies offer inconclusive evidence on whether or not abnormal returns significantly differ between bidders acquiring firm within the same industry and those bidders diversifying into unrelated industries. Martynova and Renneboog (2006) report that significant positive abnormal returns for the acquirers announcing industry-related acquisitions and insignificant abnormal returns for the acquirers announcing diversifying acquisitions. While Ismail (2008) find that bidder in both acquisition deals, either industry-related or industry-unrelated acquisitions are positive returns.

Controlling for the methods of payment, the studies of Travlos (1987) and Wansley, Lane and Yang (1987) seem to support the "information content" model by Myers and Majluf (1984). However, differences exist; Travlos reports insignificant positive abnormal returns, while Wansley, Lane and Yang report significant positive abnormal returns over the period of day -1 to day 0, for cash acquirers. Regarding share acquirers, Travlos reports significant negative abnormal returns, while Wansley, Lane and Yang report insignificant negative abnormal returns, over the period of day -1 to day 0. Although both studies demonstrate the relation between cash acquirers' and share acquirers' returns to support the "information content" model, they seem to disagree on the absolute level of the abnormal returns.

To summarize, the findings on short-term acquiring firms' abnormal returns are mixed. The evidence suggests that acquiring firm earn insignificant/small CAR in the pre-announcement, at the announcement, and post-announcement. Few studies have tried to explain abnormal returns according to the transaction categories public acquisition and private acquisition. Thus far, it appears that the literature agrees that

acquirers of private acquisitions have substantially higher returns than acquirers of public acquisitions. Further, some studies also try to explain acquiring firms' abnormal returns according to the categories of methods of payment. However, no clear pattern has emerged.

2.3.2 Long-Term Returns

Long-term studies examine firm performance extending over a period of more than a year to several years after the acquisition announcement. The choice of the length of the analysis period is somewhat arbitrary and varies between studies. However, one major concern of long-term studies is that it is hard to attribute firm performance to the acquisition event and most studies invariably focus on the choice of methodology to analyze adjusted returns (Barber and Lyon, 1997a; Kothari and Warner, 1997; and Lyon, Barber and Tsai, 1999).

Table 2.2 shows that prior work using the market model (MM) tends to show systematically lower stock prices over the three years following merger and acquisition announcement. Studies using other estimation techniques, such as the capital asset pricing model (CAPM), and the market-adjusted model (MAM) these also yield consistent results about the post-acquisition share price returns. Rau and Vermaelen (1998) demonstrate that a portfolio match by size and by market-to-book ratio is a better benchmark portfolio. Their study shows insignificant long-term abnormal returns in tender offers and negative returns on mergers. When they further segregated acquiring firms to differentiate between glamour, neutral or value acquirers, they find that glamour acquirer involve in merger have significant negative returns of -11.51%. While, Loughran and Vijh (1997) find that the 5 years

post performance of acquirers are insignificant negative returns for mergers and significant positive returns for tender offers.

When merger and acquisition transactions are further categorised into subsamples by the choice of method of payment, bid status (hostile versus friendly), and target firm status (public versus private), the empirical studies in general show that cash settlement is always preferred to share settlement. Specifically the general findings are that mergers and acquisitions that are fully financed by shares yield significantly negative long-term returns, whereas those financed by cash yield positive returns. The evidence that acquiring returns relate to the choice of method of payment is consistent between the US (Loughran and Vijh, 1997; Mitchell and Stafford, 2000; and Ang and Cheng, 2003) and the UK (Sudarsanam and Mahate, 2003; Conn *et al.,* 2004). Franks, Harris and Titman (1991) show that hostile bid in the UK significantly outperform friendly bids over a three-year window after acquisition announcement.

There is some evidence that indicates that the acquirers' long-term share price performance is higher when the acquired target firm is listed on the stock exchange than when the target is privately held. Conn *et al.* (2004) show that the three-year post-announcement returns for acquirers with public acquisitions is significantly negative, and acquirers with private acquisitions are insignificantly different from zero. While Antoniou, Petmezas and Zhao (2007) find that acquirers suffer significant wealth losses irrespective of the target status acquired.

The evidence on long-term abnormal returns demonstrates that acquisitions lead to a decline in acquirers' share prices for several years following the transaction. The empirical work suggests two possible explanations for this. First, the difference between short-term and long-term performance studies may be subject to methodological problems (Sudarsanam and Mahate, 2003; and Mitchell and Stafford, 2000). The problems arise from the impossibility to isolate the pure acquisition effect from other corporate events occurring in the years subsequent to the acquisition. Thus, if the negative trend results are due to the research design problems, then the conclusion of value destruction in mergers and acquisitions may be misleading. The second explanation is that the study of both short-term and long-term effects assumes capital market efficiency. Consequently, financial market frictions may account for the difference in results. Market participants might likely overestimate the potential acquisition gains when the acquisition is announced and when more information about the acquisition process is released over time, the market participants revise their expectations downwards. This second explanation leads to the conclusion that markets are inefficient in estimating the true value of an acquisition.

2.3.2.1 Summary of Post-acquisition Performance of Acquiring Firms

Evidence consistent with the latter position is found in several studies (summarized by Jensen and Ruback, 1983), which report that acquiring firms have an average abnormal return of -5.50% during the twelve months after takeover. Negative post merger abnormal returns are also reported by Frank, Harris and Mayer (1987), Malatesta (1983) and Agrawal, Jaffe and Mandelker (1992) in the US stock market. On the other hand, other US studies have found either small gains or zero gains for

the acquiring shareholders, and that most of these returns occur in the month of the offer (Kummer and Hoffmeister, 1978; Mandelker, 1974; Bradley, Desai and Kim, 1983; and Franks, Harris and Titman, 1991).

Thus, the studies in the US are inconsistent in their findings on the long-term performance of the acquiring firm. Studies in the UK (Franks and Harris, 1989; Limmack, 1991; Gregory, 1997; and Conn *et al.*, 2004) have found that on average acquiring firms suffer falls in their share price following the acquisition announcement and that these losses were being sustained several years later. Again the evidence of acquiring firm post-returns is different between the US and the UK

2.4 SUMMARY

The first part of this chapter discusses many aspects of acquisition theories. Synergy or efficiency, information effect, market power, agency problem, and managerial hubris theories for acquisitions have been put forward. Berkovitch and Narayanan (1993) state that there is no single reason for acquisition but rather a number of reasons, which may sometimes contradict or complement each other. All empirical studies find that gains to targets are positive, but gains to acquiring firms are different in both the short- and long-term. The majority of prior empirical works focus on developed stock markets, except Cheung and Shum (1993) who examine the impact of acquisition on the shareholders in the Hong Kong market.

Further, studies on the association of target firm status and acquiring firm returns information is rather limited; most studies have focused on announcement period returns associated with acquisition of public targets. The few empirical studies on

private acquisitions have unanimously shown that short-term market reaction around announcements seems to favour the acquisition of private targets. The previous studies link acquiring firm returns and target status to the managerial motives hypothesis; liquidity hypothesis; bargaining power hypothesis; and monitoring role hypothesis.

The methods of payment in acquisitions include pure cash, pure share, or a mix of cash and shares. A number of economic hypotheses and related evidence explain the choice of method of payment. The information is related to the taxes, information-signalling theories and capital structure theories on the methods of payment in acquisitions. These hypotheses are not necessarily mutually exclusive, a given payment choice may reflect elements of several theories.

The second part of this chapter reviews prior studies on the relationship between acquisitions and firm returns. Thus far, findings from prior studies are inconclusive, especially on the acquiring firms related to the method of payment in both the short- and the long-term. Prior empirical work shows that the market model is commonly used to examine the impact of the acquisition event in the short-term measurement of share performance. While, for the long-term post-acquisition performance, most of the previous studies use the BHAR approach developed by Ritter (1991), such as Sudarsanam and Mahate (2003); Conn *et al.* (2005); and Goergen, Khurshed and Mudambi (2007). The next chapter discusses the testable hypotheses in relation to acquisitions and the process of how the sample is gathered and the research models used to estimate the short-and long-term performance.

Table 2.1

Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

The following notation is used.
Types of mergers and acquisitions: T – takeovers, TO – tender offer, M – mergers, A – acquisitions, FA – friendly acquisition, HA – hostile acquisition, Share – all-share offers, Cash – all-cash offers, Mixed – combination of share and cash offers, SU – successful acquisition, UN – unsuccessful acquisition, Public (Pub) – acquired publicly listed target firm, Private (Priv) – acquired unlisted private target firm. Related – acquiring and targets firms are operated in the same industry, and Unrelated – acquiring and targets firms are operated in the different industry.
Benchmarks Return Models: MM – market model; MAM – market adjusted model; BMCP – beta-matched control portfolio, CAPM – capital asset pricing model, FFM – Fama-French model, SBM – size and book-to-market ratio matched portfolio.
Sample size refers to the number of observations for acquiring firm/ target firms, respectively.
Measurement of Returns: CAR – cumulative average abnormal return; AR – average abnormal return on announcement day (day 0).
Significance level: * – significance is not reported, a/b/c – statistically significance at 1% / 5% / 10%, respectively.

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Panel A: The US evidence										
Dodd and Ruback (1977), *US*	1958-76	MM	(0, +20)	124/133	TO	n/a	n/a	+2.83[b]	+20.89[a]	Announcement date of the acquisition as the event date in the study. Most gains from takeover accrue to the target.
Dodd (1980), *US*	1970-77	MM	(-20, 0) (-40, +40)	126/151	M	+0.80 +5.17[*]	+21.78[a] +21.43[*]	-0.62[a]	+4.30[a]	Targets earn large positive return, irrespective of the outcome (completed or cancelled merger proposal).
Asquith (1983), *US*	1962-76	BMCP	(-2, 0)	196/211	SU – M UN – M	-0.50[a] +0.30	+0.27 +0.20	+0.20 +0.00	+0.90 -3.40[a]	Found that leakage of information prior to the initial announcement. Cumulative abnormal returns to acquiring firms decline as period lengthens.
			(-20,0)	196/211	M	+0.20	+13.30[a]			
Asquith, Bruner and Mullins (1983), *US*	1963-79	MM	(-20, +20)	214/54	M	+2.60[a]	+17.50[a]	+0.20[b]	+4.30[b]	Acquirer returns are positively related to the size of the acquired. Positive gains to acquirers.
Bradley, Desai and Kim (1983, *US*	1963-80	MM	(-20, +20)	94 67 27	All deal – A SU – TO UN – TO	-1.50 -2.39 +0.79	n/a	-0.21 -0.24 -0.12	n/a	Acquisitions in tender offer exploit potential synergies. The positive abnormal returns from unsuccessful tender offers were due mainly to the anticipation of a future successful offer.

Continued on next page

Table 2.1 (continued)

Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Dennis and McConnell (1986), *US*	1962-80	MAM	(-19, 0) (-6, +6)	90/76	M	+1.07 +3.24[a]	+16.67[a] +13.74[a]	n/a	n/a	Extended the study to investigate the effect of merger on the wealth of various classes of merging security holders. The acquiring firms' preferred shareholder gains. The results support the synergy hypothesis, and results are sensitive to the time period used to measure returns.
Travlos (1987), *US*	1972-81	MM	(-10, +10) (-5, +5)	60 100 64 60 36 5	All – Cash All – Stock M – Cash M – Stock TO – Cash TO – Mixed	-0.13 -1.60	n/a	+0.29 -0.69[a] +0.33 -0.69[a] +0.22 -1.02	n/a	Examined returns to acquiring firms and the role of methods of payments. Different methods of payment in an acquisition have different signalling implications. The market interprets a cash offer as good news.
Wansley, Lane and Yang (1987), *US*	1970-78	MM	(-40, +40) (-1, 0)	199 64 118	All deal All – Cash All – Stock All deal All – Cash All – Stock	+1.12 +6.17[b] -1.51 +0.36[c] +1.44[a] -0.27	n/a	+0.19	n/a	17 samples employ a combination of cash and share offers, which excluded in the analysis. The evidence is consistent with the payment method signalling hypothesis.
Bradley, Desai and Kim (1988), *US*	1963-68	MM	(-5, +5)	236/236	TO	+0.79[*]	+28.07[a]	+0.23	+14.50	Examined successful tender offer and test of synergy hypothesis. Successful tender offer leads to increase in combined wealth of shareholders of acquiring and target firms.
Lang, Stulz and Walking (1989), *US*	1968-86	MAM	(-5, +5)	87	TO	+0.10	+40.30[a]	n/a	n/a	The Tobin q to measure for acquirers and targets returns. When taking poorly managed firms, well managed acquirers have better opportunities to implement value-increasing changes.

continued on next page

Table 2.1 (continued)

Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Lodered and Martin (1990), *US*	1966-84	MM	(-5, 0)	1135 274	M TO	+0.99[a] +0.52	n/a	n/a	n/a	Majority of corporate acquisitions benefits the bidding firm. When controlling for relative acquisition size, large firms seem to pay too much for their targets, and large bids seem to be overpriced on average.
Servaes (1991), *US*	1972-87	MM	(0, close)	384/704 307/577 125/77	All deal – T FA HA	-1.07[a] -0.16 -4.71	+23.64[a] +21.89[a] +31.77[a]	n/a	n/a	Target and acquirer return are large when targets have low q ration and bidders have high q ratios.
Harris, Franks and Titman (1991), *US*	1975-84	MM	(-5, +5)	399 156 128 114 93 306	All deal– MA Cash Stock Mixed HA FA	-1.02[c] +0.83 -3.15[a] -1.18 -1.35 -0.92[c]	+28.04[a] +33.78[a] +22.88[a] +25.81[a] +39.49[a] +24.57[a]	n/a	n/a	Using multifactor benchmarks. The evidence shows that previous findings of poor performance after takeover are likely due to benchmark errors rather than mispricing at the time of the takeover.
Schwert (1996), *US*	1975-91	MM	(-42, -1) (-42, -1)	959 564	M TO	+1.40[*] +1.70[*]	+11.90[b] +15.60[b]	n/a	n/a	The evidence shows that the pre-bid run-up and the post-announcements increase in the target's stock price are generally uncorrelated.
Chang (1998), *US*	1981-92	MM	(-1, 0)	101 154 131 150	Pub – Cash Pub – Stock Priv – Cash Priv – Stock	-0.02 -2.46[a] +0.09 +2.64[a]	n/a	n/a	n/a	Test on the target status on acquiring firm returns. The monitoring activities and information asymmetries were reasons for positive wealth effect.
Walker (2000), *US*	1980-96	MAM	(-2, +2)	278 230 48	All deal – T M TO	-0.84[c] -1.13[b] +0.51	n/a	n/a	n/a	Losses are limited primarily to those takeovers based on diversification strategies.

continued on next page

Table 2.1 (continued)
Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Andrade, Mitchell and Stafford (2001), *US*	1973-98	MM	(-1, +1) (-20, close)	3688 2194 1494 3688 2194 1494	All deal – A M – Stock M – Cash All deal – A M – Stock M – Cash	-0.70 -1.50[a] +0.40 -3.80 -6.30 -0.20	+16.00[b] +13.00[b] +20.10[b] +23.80[a] +20.80[a] +27.80[a]	n/a	n/a	Abnormal return of zero reflects a fair rate of return on the merger investment from the acquirer's point of view.
Ang and Kohers (2001), *US*	1984-95	Size, B/M	(0, +1)	644 979 	Pub – Cash Pub – Stock Priv – Cash Priv – Stock	+0.06 -1.26[b] +1.83[b] +1.32[b]	n/a	-0.04 -0.75[a] +0.86[a] +0.95[a]	n/a	On average premiums paid to private targets are higher than those paid to publicly traded targets. This can be attributed to their strong bargaining power and timing options.
Fuller, Netter and Stegemoller (2002), *US*	1990-2000	MAM	(-2, +2)	3135 456 2060 146 920	Public Private Pub – Cash Priv – Cash Pub – Stock Priv – Stock	+1.00[b] +2.08[a.] +0.34 +1.62[a.] -1.68[6] -2.43[a]	n/a	n/a	n/a	Bidders with private acquisitions gain more. Bidders are purchasing assets in a relatively illiquid market, thus, the valuation of these assets reflects liquidity discount, resulting in a higher return to bidders.
Moeller, Schlingemann and Stulz (2004), *US*	1980-2001	MM	(-1, +1)	12023 4862 2958 4203 2642 5583	All deal – A Cash Share Mixed All – Pub All – Priv	+1.10[a] +1.38[a] +0.15[a] +1.45[a] -1.02[a] +1.49[a]	n/a	n/a	n/a	The announcement return of bidding is related to the size of the bidders, irrespective of the choice of method of payment and whether the acquired firm is public or private.
Ismail (2008), *US*	1985-04	MM	(-2, +2)	16221 8698 3038 6310 9911	All deal – A Cash Share Related Unrelated	+1.22[a] +1.12[a] +0.69 +1.05[a] +1.50[a]	n/a	n/a	n/a	Acquiring firm gains significantly, but is found that higher returns are gains by single acquirers. The multivariate regressions support the univariate results.

continued on next page

Table 2.1 (continued)

Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Panel B: The UK evidence										
Franks and Harris (1989), *UK*	1955-85	MM, CAPM, MAM	(-4, +1)	1012/1693 46/121	TO M	+1.20[b] -3.60[b]	+24.00[b] +14.80[b]	n/a	n/a	Monthly data is used to estimate the acquiring and target firms' returns. Shareholders of targets gain, and shareholders of acquiring gain or do not lose. The evidence is quite comparable in the UK and US.
Holland and Hodgkinson (1994), *UK*	1988-89	MM, MAM	(-29, +10)	86	T	n/a	+22.58[a]	n/a	+12.39[a]	AR occurring prior to a bid announcement might be due to insider trading.
Sudarsanam and Mahate (2003), *UK*	1983-95	MAM Mean-adj	(-1, +1)	519	All deal – A	-1.39[a] -1.47[a]	n/a	n/a	n/a	Estimate buy-and-hold returns with various benchmarks, and shows similar results.
Draper and Paudyal (2006), *UK*	1981-85	CAPM	(-20, +20)	8579 1098 7499	All deal – A Public Private	+1.09[a] -0.71[b] +1.34[b]	n/a	n/a	n/a	The results support the managerial motive, liquidity and asymmetric hypotheses.
Panel C: Developing stock market evidence										
Koh and Lee (1988), *Singapore*	1973-84	MM	(-1, +1)	85/31	T	+0.01	+4.17[a]	+0.01	+0.76[a]	Acquiring firm does not suffer losses from acquisition, but small marginal gain around the announcement.
Cheung and Shum (1993), *HK*	1986-91	MM	(-30, +30)	19/50	SU – T	-16.09	+5.56	-0.21	+5.51[a]	Most of the gains to the target firms. 90% of the acquisitions are paid in cash.
Bellamy and Lewin (1992), *Australia*	1980-88	MAM	(-10, +10)	210/120	All deal – A T – Cash T – Share	+1.61 +0.84 +0.45	+25.32	-0.29[*] +0.03[*] -2.97[b]	+6.43[a]	Previous studies have inconsistent results because they did not control information or wealth effects arising from the choice of method of payment use in the acquisition.

continued on next page

Table 2.1 (continued)

Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Eckbo (1986), *Canada*	1964-83	MM with lead and lag terms	(-1, 0) (+1, +12)	1375/413	All deal – A	+1.66[c] +0.62[b]	+3.58[a] -0.96	+1.17[a]	+8.27[a]	Using monthly data. The Canadian market for corporate control plays an important role in promoting and optimal resources allocation.
Isa and Lim (1993), *Malaysia*	1984-89	MM	(-20, +20)	53/53 34 19	All deal – A SU UN	+0.28 -0.69 +2.01	+3.40 -1.24 +11.65	+0.48[b] -0.40 -0.06	+0.99[b] -1.00 -0.90	Firm returns around the announcement date. At the outcome date, the successful targets do not gain or lose, but the unsuccessful targets tend to lose. This evidence is consistent with the synergistic gains hypothesis.
Mat-Nor (1993a), *Malaysia*	1977-89	MM	(-200, +200)	293/45	All deal – A	+9.21	+13.69	+0.76[b]	+0.27	The CAR for acquiring and target firms is accumulated from prior announcement to the announcement date. On the announcement date the market appears to adjust immediately to the acquisition announcement, acquiring and target firms experience highest returns. However, after the announcement date the abnormal returns to acquirers decline significantly.
Isa (1994), *Malaysia*	1984-89	MM	(-50, +50)	119/38 65/22 30/4	All deal – A Cash Share	+2.30 +7.16 -6.25	+11.22 +13.72 -6.21	-0.20 -0.35 -0.35	+0.17 -0.26 +1.50	Acquiring and target firms gain abnormal returns beginning about two months prior to the announcement. After the announcement, targets' prices remain relatively stable, while acquirers' prices decline, losing most of their prior gains. The market prefers cash offers to share offers, consistent with the financing signalling model.

continued on next page

Table 2.1 (continued)

Summary of studies relating to short-term performance around the mergers and acquisitions announcement: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (Days)	Sample Size	Types of M&A	CAR Acquirer %	CAR Target %	AR Acquirer %	AR Target %	Issues and Main Findings
Goergen and Renneboog (2004), *Europe*	1993-00	MM	(-1 to 0)	142/136	All deal	+0.70[a]	+9.01[a]	n/a	n/a	Use 6 methods, results are for MM. Acquisition announcement create positive gains, most of which go to the target firms, and acquiring firms have small positive returns. The evidence indicates that method of payment has impact on the acquiring and target's shareholders wealth.
				88/86	Cash	+0.37[c]	+9.89[a]			
				30/33	Share	+0.98[a]	+6.65[a]			
				41/40	M	+2.20[a]	+8.80[a]			
				55/53	FA	+2.43[a]	+5.96[a]			
				32/28	HA	-2.51[a]	+12.60[a]			
				113/109	SU	+1.08[a]	+10.30[a]			
				29/27	UN	-0.73	+5.51[a]			
			(-2 to 2)	142/136	All deal – T	+1.18[a]	+12.96[a]			Goergen and Renneboog (2004, p.39) conclude that *'contrary to past research, the size of the target relative to the size of the bidder does not have an impact on target and bidder wealth effects. The reason for this may be that this study focuses on large M&A deals and that therefore the average relative size is fairly homogeneous'*
				88/86	Cash	+0.90[c]	+13.56[a]			
				30/33	Share	+2.57[a]	+11.38[a]			
				41/40	M	+4.35[a]	+12.62[a]			
				55/53	FA	+1.94[a]	+11.33[a]			
				32/28	HA	-3.43[a]	+17.95[a]			
				113/109	SU	+1.75[a]	+13.75[a]			
				29/27	UN	-0.97	+10.83[a]			
Martynova and Renneboog (2006), *Europe*	1993-01	MM	(-5 to 5)	2109/760	All deal	+0.79[a]	+15.83[a]	+0.53[a]	+9.13[a]	The announcements reactions were strongly positive for target shareholders and acquiring shareholders have small gain. Investors adjust downwards both the acquirer and target's share price at the announcement of share offers.
				329/380	FA	-0.29	+20.19[a]	-0.37	+12.07[a]	
				1659/259	HA	+1.07[a]	+6.25[a]	+0.78	+2.75[a]	
				754/405	Cash	+1.03[a]	+20.17[a]	+0.55[a]	+11.55[a]	
				285/185	Share	+0.66	+11.10[a]	+0.04	+7.29[a]	
				412/92	Mixed	+1.03[c]	+17.48[a]	+0.87[a]	+10.06[a]	
				576	Pub – All	-0.06		-0.12		
				1532	Priv – All	+1.06[a]		+0.77[a]		
				1334	Related	+0.98[a]		+0.63[a]		
				774	Unrelated	+0.45		+0.36[b]		

Table 2.2

Summary of studies relating to long-term post-acquisition performance: Evidence from developed and developing markets

The following notation is used.
Types of mergers and acquisitions: T – takeovers, TO – tender offer, M – merger, A – acquisitions, FA – friendly acquisition, HA – hostile acquisition, Share – all-share offers, Cash – all-cash offers, Mixed – combination of share and cash offers, SU – successful acquisition, UN – unsuccessful acquisition, Public (Pub) – acquired publicly listed target firm, Private (Priv) – acquired unlisted private target firm.
Benchmarks Return Models: MM – market model, MAM – market adjusted model, CAPM – capital asset pricing model, CTAR – calendar time abnormal returns, FFM – Fama-French model, SBM – size and book-to-market ratio matched portfolio, RATS – returns across time and securities (Ibbotson (1975)).
Sample size refers to the number of observations for acquiring firm/ target firms, respectively.
Measurement Returns: CAR – cumulative average abnormal returns, BHAR – buy-and-hold abnormal returns, CTAR – calendar time abnormal returns, RATS – returns across time and securities. AR – average abnormal return on announcement month (month 0).
Significance level: * – significance is not reported, a/b/c – statistically significance at 1% / 5% / 10%, respectively.

Author (s) (year) ***country***	**Period of Study**	**Benchmark Return Model**	**Event Window (month)**	**Sample Size**	**Type of M&A**	**CAR or BHAR %**	**AR Acquirer %**	**Issues and Main Findings**
Panel A: The US evidence								
Halpern (1973), *US*	1950-65	2 factor model, MM	CAR (0, +7)	149	TO	+2.83[b]	+0.13	Testing management-utility-maximization hypothesis.
Mandelker (1974), *US*	1941-62	MM	CAR (-40, +40)	241	M	+3.70	+0.18	Use two-factor MM (Black-Jensen-Scholes and Fama-MacBeth). The results confirm that capital market is efficient with respect to information released in merger announcement.
Kummer and Hoffmeister (1978), *US*	1958-74	CAPM	CAR (-40, +20)	17	TO	+22.80[c]	+5.20[c]	Low abnormal returns are reflective of unrealized gains subject to the replacement of incumbent management.
Dodd and Ruback (1977), *US*	1958-76	MM	CAR (-12, -1) (+1, +12) (-13, +60)	 124 124 81	 TO TO TO	 +11.66[a] -1.32[a] -4.59	+2.83[a]	In the month of the offer, only successful bidder earns significant positive abnormal.
Langetieg (1978), *US*	1929-69	Two-factor performance index	CAR (+1, +12) (+1, +24)	 149 149	 M	 -6.59[a] -12.86[a]	n/a	Use four alternative models, generally produce similar results.

continued on next page

Table 2.2 (continued)

Summary of studies relating to long-term post-acquisition performance: Evidence from developed and developing markets

Author (s) (year) ***country***	**Period of Study**	**Benchmark Return Model**	**Event Window (month)**	**Sample Size**	**Type of M&A**	**CAR or BHAR %**	**AR Acquirer %**	**Issues and Main Findings**
Bradley, Desai and Kim (1983, *US*	1963-80	MM	CAR (+1, +24)	112 86 26	All deal – T SU – TO UN – TO	+1.78 +17.35[a] -27.47[a]	n/a	Acquisitions via tender offers are to exploit potential synergies, not information regarding the 'true' value of the target resources.
Malatesta (1983), *US*	1969-74	MM	CAR (0, +12)	256	M	-13.70[a]	+0.90	The study tests value maximizing, size-maximizing, and improvement hypotheses.
Franks, Harris and Mayer (1988), *US & UK*	1955-85	MM, MAM, CAPM	CAR (0, +24)	127 392 221 207	US – Cash US – Share UK – Cash UK – Share	-3.60 -1.80[b] +1.75[b] -9.40	n/a	Comparison of UK and US acquisitions. The Dimson's method (1979) is used for thin trading adjustment. The US evidence shows that bidders with stock offers suffer significant losses, however, in the UK, no losses are evident. Capital gains tax not the primary determinant of financing pattern in UK.
Harris, Franks and Titman (1991), *US*	1975-84	5 models, result for 8-factor model	CAR (+1, +36)	399 156 128 114 93 306	All deal – A Cash Share Mixed HA FA	+0.05 +0.26 -0.17 +0.44 +1.24[a] +0.78[c]	n/a	The prior finding of negative post-merger share-price performance for bidders is more likely due to benchmark errors than mispricing at the announcement.
Agrawal, Jaffe and Mandelker (1992), *US*	1955-87	Size and beta-adjusted	CAR (+1, +12) (+1, +60)	765	M	-1.53 -10.26[b]	n/a	Two alternative methodologies: Dimson and Marsh (1986) and RATS.
Loughran and Vijh (1997), *US*	1970-89	Size and B/M Size	BHAR (0, +60)	8 92 100 292 142 434	TO – Share TO – Cash TO – all M – Share M – Cash M – all	-61.20 +66.40[b] -56.20[b] -5.90 +33.90[b] +7.10	n/a	The removal of overlapping acquisition does not change statistical significance of previous findings.

continued on next page

Table 2.2 (continued)

Summary of studies relating to long-term post-acquisition performance: Evidence from developed and developing markets

Author (s) (year) *country*	Period of Study	Benchmark Return Model	Event Window (month)	Sample Size	Type of M&A	CAR or BHAR%	AR Acquirer%	Issues and Main Findings
Rau and Vermaelen (1998), *US*	1980-91	Size and B/M adjusted	CAR (1, +36)	255 316 643 2823	TO – Public TO – all M – Public M – all	+8.56 +8.85 -2.58[a] -4.04[a]	n/a	The long-term underperformance of acquiring firms in mergers is caused by the poor post-acquisition performance of low book-to-market glamour firms.
Mitchell and Stafford (2000), *US*	1961-93	Size and B/M and other benchmarks	BHAR (0, +36)	2068 1029 1039	All deal – A A – Stock A – Cash	-0.01 -0.08[a] +0.06[b]	n/a	Evidence shows that event-firm abnormal returns are positively cross-correlated when overlapping in calendar time.
Moeller, Schlingemann and Stulz (2004), *US*	1980-2001	4 factors based on FFM and Carhart (1997)	CTAR (0, +36)	12023 1199 396 1047 1553 2060 1970	All deal – A Pub – Share Pub – Cash Pub – Mixed Priv – Share Priv – Cash Priv – Mixed	+0.02 +0.19 +0.40[b] -0.09 +0.29 +0.21 -0.06	n/a	Large firms have significant losses when they announce acquisition of public firms irrespective of how the acquisition is financed. The evidence shows that size effect is robust.
Panel B: The UK evidence								
Frank, Broyles and Hecht (1977), *UK*	1955-72	MM	CAR (0) (-40, +40)	70	M	 -1.40 -4.50	n/a	Evidence suggests that, on average, the market begins to anticipate mergers at least three months before mergers were announced. No significant loss to the acquiring firms shareholders.
Firth (1980), *UK*	1969-75	MM	CAR (+1, +12) (+13, +36)	434	TO	+0.50 -0.40	-0.50	Takeovers are being motivated more by maximization of management utility reasons, than the maximization of shareholders wealth.
Franks and Harris (1989), *UK*	1960-85	MM MAM CAPM	CAR (0, +24)	1048	M & TO	-12.60[a] +4.80[b] +4.50[b]	n/a	The post-merger performance of the bidder depends on the benchmarks returns.

continued on next page

Table 2.2 (continued)

Summary of studies relating to long-term post-acquisition performance: Evidence from developed and developing markets

Author (s) (year) ***country***	**Period of Study**	**Benchmark Return Model**	**Event Window (month)**	**Sample Size**	**Type of M&A**	**CAR or BHAR%**	**AR Acquirer%**	**Issues and Main Findings**
Limmack (1991), *UK*	1977-86	MM	CAR (0, +12) (0, +24)	448	M & TO	-5.55[a] -14.96[a]	n/a	Results reported using OLS estimates of market model parameters are subject to criticism, on the basis of bias due to infrequent trading.
Gregory (1997), *UK*	1984-92	CAPM Dimson-Marsh	CAR (+1, +24)	452	M & TO	-17.73[a] -12.52[a]	-0.30 -0.50	The AR is measured with various benchmarks. The results show that a 'good' benchmark must control for the size effect. However, 4 different models that control for size, fail to alter the general conclusion that post takeover performance for these UK acquirers is significantly negative.
Sudarsanam and Mahate (2003), *UK*	1983-95	Size, MAM, B/M, Mean-adjusted	BHAR by day (+41, +750)	519 17 30 50 36 32 35	All deal – A Cash – High Cash – Med Cash – Low Share – High Share – Med Share – Low	-14.76[a] +10.19 +4.15 +4.47 -30.80[a] -18.40[a] -17.85[a]	n/a	The glamour firms are more likely to use equity financing than cash, and the evidence also shows that there is significant correlation between financial status and the choice of method of payment.
Conn *et al*. (2005), *UK*	1984-98	Size and B/M	BHAR (+1, +36) CTAR (+1, +36)	576 2628	Public Private Public Private	-19.78[a] -4.78 -0.40[b] -0.08	n/a	The poor performance of public acquisitions is limited to those made by glamour acquirers, whilst in contrast; glamour acquirers in private acquisition do not underperform.
Antoniou, Petmezas and Zhao (2007), *UK*	1987-04	CTAR	CTAR (+1, +36)	1061 124 582 255	All deal Public Private Subsidiary	-0.43[a] -0.55[b] -0.39[c] -0.36[c]	n/a	In the long-term, acquirers suffer significant wealth losses irrespective of the target status acquired. Antoniou *et al*. (2007, p. 22) conclude that *'therefore it is premature to accept Fuller et al.'s conclusion based solely on the short-run evidence'*.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

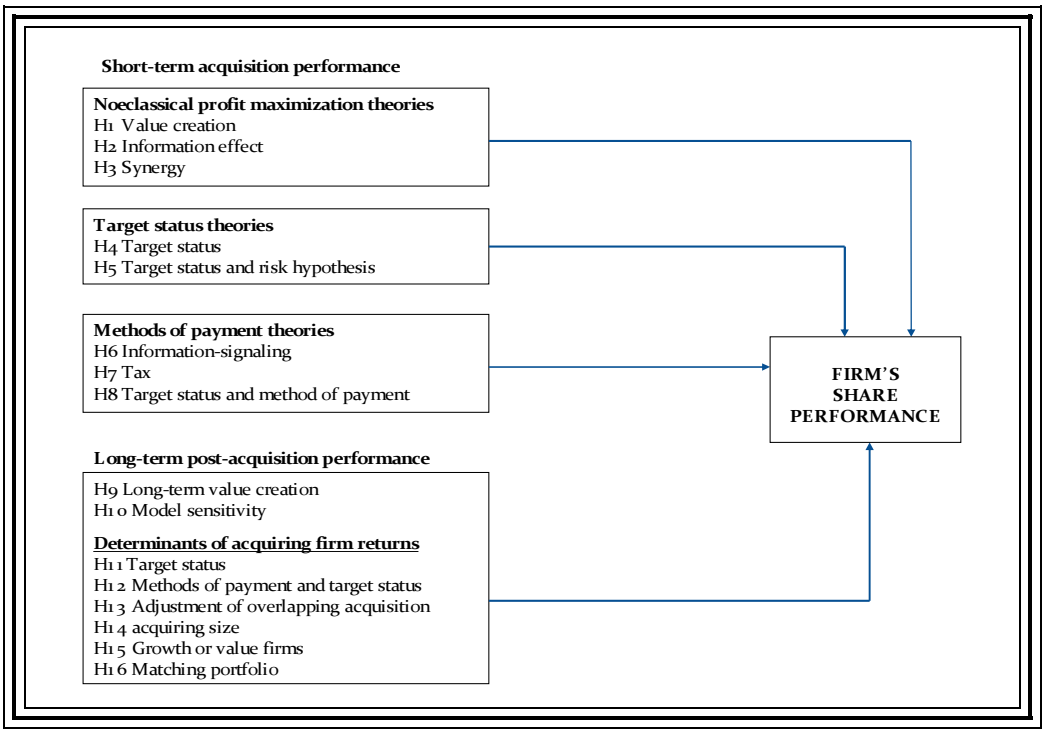
This chapter introduces the theoretical framework, the testable hypotheses and data collection for the study. Based on the review of relevant literature in the preceding chapter, Section 3.2 discusses the theoretical framework and the relevant hypotheses. Section 3.3 discusses the arguments behind the development of each hypothesis. Section 3.4 presents sources of data and how samples are selected. Section 3.5 provides an explanation of the research methodologies related to the event study procedures in the short- and long-term. Section 3.6 ends the chapter with a summary.

3.2 THEORETICAL FRAMEWORK

Figure 3.1 presents the diagrammatic representation of the theoretical framework examined in the study. The diagram shows all the variables to be investigated in the study. The motive of the study is to examine the short-term and long-term acquisition firm performance. For the short-term performance attributes, the variables investigated in this study are value creation, information, synergy, target status, information-signalling and tax. While for long-term post-acquisition performance attributes, the variables investigated are value creation, model sensitivity, target firm status, method of payment, overlapping acquisitions, acquiring size and growth or value firms.

Figure 3.1

Theoretical Framework



Despite the widely debated issues on acquisitions and firm performance, there is yet to be seen of universally accepted evidence. Most commonly applied theories in the acquisition literature are neoclassical profit maximization theories (Manne, 1965; and Berkovitch and Narayanan, 1993), target status theories (Chang, 1998; and Draper and Paudyal, 2006), and information-signaling theory (Myers and Majluf, 1984). The neoclassical profit maximization theories are used to examine the motives to engage in acquisition and, thus, enhance the returns of acquiring and target firm returns. In an acquisition, a listed firm may acquire another listed company or an unlisted (private) company, reflecting differences in the acquiring firm returns. This is shown in recent studies on acquiring performance and target status by Chang (1998) and Draper and Paudyal (2006).

Based on prior studies, methods of payment should be analysed separately, as they have a different impact on the acquiring firm's returns. Myers and Maljuf (1984), Travlos (1987) and Moeller and Schlingemann (2004) focus information-signalling, whereas Brown and Ryngaert (1991) and Betton, Eckbo and Thorburn (2008) focus on tax theories in their research. This study proposes neoclassical profit maximization theories, target status theories and method of payment theories in linking the share firm's performance. The short-term performance framework also extends to the long-term post-acquisition performance of acquiring firms.

3.3 DEVELOPMENT OF HYPOTHESES

This study examines the relationship between the neoclassical profit maximization motives (value creation, information and synergy) as the main reasons to engage in acquisition and, thus, enhance the returns of acquiring and target firm. Based on the problem statements stated in the preceding chapter, the major hypotheses in this study is the prediction of the relationship in sign and magnitude between acquisition announcement and abnormal returns to the target and acquiring firms. The rejection of the null hypothesis implies that the shareholders of the target and the acquiring firms experience significant wealth effects, either positive or negative, because of the unexpected acquisitions announcement.

3.3.1 Neoclassical Profit Maximization

3.3.1.1 Value Creation

The neoclassical profit maximization theory assumes that managers of acquiring and target maximize shareholders wealth and would engage in acquisition activity only if

it is expected to create value to the acquiring and target firm shareholders. Therefore, gains to both acquiring and target firms would be positive. Halpern (1983) discusses a number of acquisition motivations that are consistent with the goal of value maximization, such as financial and economic motivations, and an asymmetry in information.

Prior studies by Asquith (1983), Cheung and Shum (1993), and Martynova and Renneboog (2006) find that acquisitions are value increasing for target firms. Dodd (1980), Malatesta (1983) and Limmack (1991) find that acquisitions are value decreasing transaction for acquiring firm (have small negative, but statistically significant abnormal returns), while Asquith, Bruner and Mullins (1983) and Goergen and Renneboog (2004) find that acquiring firms generate small positive abnormal returns. In general it can be said that previous studies find that "targets gain while acquiring firms do not lose."

Based on the above discussion, it is expected that acquisition announcement would have positive impact to both acquiring and target firms. The study proposes the following testable hypotheses:

H1: Value Creation Hypothesis

$H_0$1.1: There is no significant abnormal return to acquiring firms around the acquisition announcement period.

H_a1.1: There is a positive abnormal return to acquiring firms around the acquisition announcement period.

$H_0$1.2: There is no significant abnormal return to target firms around the acquisition announcement period.

H_a1.2: There is a positive abnormal return to target firms around the acquisition announcement period.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{AR_t} = 0$, *and* $\overline{CAR}_{T1,T2} = 0$ t = -30,…0,…+30.

Alternative: the $\overline{AR_t} > 0$, *and* $\overline{CAR}_{T1,T2} > 0$ t = -30,…0,…+30.

3.3.1.2 Information or Synergy Hypothesis

The above hypothesis is based on the expectation that value will be created for both target and acquiring firms during the announcement period. Two most commonly mentioned underlying theories for the value creation is the information theory and the synergy theory. The information effect hypothesis refers to an upward revaluation of the target's share prices. Firstly, this may be due to the dissemination of new information during acquisition announcements. Prior to the announcement, the market may not be aware of the true value of the assets belonging to the target firm. Market awareness comes about when an acquiring firm makes an offer to buy these assets. Secondly, the acquiring firm is motivated by the inefficiency of the target firm's management to the extent that the assets that were not efficiently utilized. The acquiring firm will only offer a premium that is justified by the amount of the undervaluation. Therefore, the acquisition announcement will signal positive information to the market about the true value of the target firm's share price. Bradley, Desai and Kim (1983, p.204) conclude that *'the target shareholders will*

realize a significant positive abnormal return with the announcement of a tender offer and that the return will not dissipate even if the offer is rejected by the target shareholders'.

The synergistic gains hypothesis on the other hand, implies that the combination of two firms may result in a combined net gain that is more than the sum of the pre-acquisition value of the individual firms. Bradley, Desai and Kim (1988) suggest that in the tender offer contests, the successful acquirer will be the one that can effect the highest synergistic gains, and the target firm shareholders of an unsuccessful tender offer will not realize a permanent increase in wealth.

As discussed in the preceding chapter previous studies appear to provide conclusive evidence of a positive revaluation in the prices of the target firm as gains are consistent with both the synergy and information theory. Bradley (1980) finds that target shareholders in unsuccessful tender offers experience a significant and permanent increase in share prices. This permanent revaluation of the target shares exceed the per share premium of the rejected bid, and the results appear to contradict the synergy theory of tender offers. The synergy theory assumes that a successful outcome is required for the gains to be enjoyed; this means the gains are not permanent in the unsuccessful acquisition.

Dodd and Ruback (1980) study the unsuccessful offers on both the target and acquiring firms. They find that the target and acquiring firms have zero cumulative abnormal returns following the announcement of an unsuccessful offer. Dodd and

Ruback conclude that the market perceives the gains to be enjoyed only if there is an acquisition, this result is consistent with the synergy theory.

However, Asquith (1983) finds that the market does not distinguish between successful and unsuccessful merger bids before or at the time of the bid announcement. He finds that targets in both successful and unsuccessful merger bids display large positive abnormal returns around the time of the announcement period, while at the outcome date, target firms in successful mergers have a positive return whereas the target firms in unsuccessful merger show a dramatic negative return. In contrast, there is virtually no share price change for successful acquiring firms on the announcement date, whereas on the outcome date the successful acquiring firms earn little if any returns, and unsuccessful acquiring firms do not experience a large negative change of share price. This suggests that target firms have unique resources that provide synergy when combined. Asquith concludes that the possible source for the merger gains is inefficient management of the target firm.

In the local scene, very few empirical studies have been conducted on acquisition activities of the public listed firms in Malaysia. Isa and Lim (1993) conducted an empirical study on share price behaviour around acquisition announcement. They examine the impact of acquisitions on acquiring and target firms by studying the successful and unsuccessful acquisition bids. The results show that around the announcement date the target firms, which are eventually successfully acquired, gain positive abnormal returns around the pre-announcement period, but lose them all around the post-announcement period. As for the successful acquirers, they neither gain nor lose, but the unsuccessful acquirers tend to gain over the announcement

period. At the outcome date, the successful targets do not gain nor lose, but the unsuccessful targets tend to lose. While for acquirers, both the successful and unsuccessful firms do not experience significant price change. This evidence is consistent with the synergistic gains hypothesis.

Although it is recognised that the information hypothesis is normally related to target firms, we would expect it is equally applicable to the acquiring firm. This is because we believe that whatever the positive impact of the announcement to the target firm should also benefit the acquiring firm to some extent. The study proposes the following testable hypotheses:

H2: Information Hypothesis

$H_0$2.1: There is no positive relation between acquiring firm returns and the outcome of the acquisition.

H_a2.1: There is a positive relation between acquiring firm returns and the outcome of the acquisition.

$H_0$2.2: There is no positive relation between target firm returns and the outcome of the acquisition.

H_a2.2: There is a positive a relation between target firm returns and the outcome of the acquisition.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{AR_t} = 0, \quad and \quad \overline{CAR}_{T1,T2} = 0 \qquad t$ = -30,…0,…+30.

Alternative: the $\overline{AR_t} > 0, \quad and \quad \overline{CAR}_{T1,T2} > 0 \qquad t$ = -30,…0,…+30.

H3: Synergy Hypothesis

$H_0$3.1: There is no relation between the sustainability of the abnormal returns and the outcome of the acquisition for the acquiring firm.

H_a3.1: There is a positive relation between the sustainability of the abnormal returns and the outcome of the acquisition for the acquiring firm.

$H_0$3.2: There is no relation between the sustainability of the abnormal returns and the outcome of the acquisition for the target firm.

H_a3.2: There is a positive relation between the sustainability of the abnormal returns and the outcome of the acquisition for the target firm.

The synergy hypothesis predicts that the wealth of target firms' shareholders increase at the acquisition announcement. This is because the target firm is able to extract some or most of the total gains from the combined firm by virtue of its bargaining power. However, the wealth effects for the acquiring firm depend upon the outcome of the acquisition. If the acquisition is successful, synergy hypothesis stipulate that the gain will be sustained; if it is unsuccessful, the gain will be lost because no synergy will take place.

The literature identifies a number of explanatory variables as having a significant impact on the wealth gains to the acquiring shareholders. The next section discusses hypotheses related to relative size and industry relatedness and acquiring firm returns.

1. Relative Size of Target to Acquiring Firm

Eckbo, Maksimovic and Williams (1990) mentions that there are several difficulties in estimating acquirer returns. For example, targets may be small relative to the acquirer, thus, even good acquisitions may have little impact on the acquirer's share price. Agrawal, Jaffe and Mandelker (1992) finds that the acquisition of a relatively large target is likely to be more important economic event for acquirer firm than the acquisition of a relatively small target. To observe the gains on the acquiring firm, it may be necessary to incorporate the effect of relative size of target to acquiring firms on observed excess returns.

Asquith, Bruner and Mullins (1983) regresses the merger-induced abnormal returns to the acquiring firm on the relative size of target to acquirer and finds a statistically significant positive coefficient. Similarly, Jarrell and Poulsen (1989), Lodered and Martin (1990), and Linn and Switzer (2001) also find evidence that the acquirer's abnormal return tends to increase with the relative size of the target. They conclude that acquisition of relatively large target is more likely to achieve synergies. However, large acquirer seems to pay too much for the target, and large bids seem to be overpriced on average, thus reducing shareholders' wealth (Loderer and Martin, 1990). In contrast, Clark and Ofek (1994) finds that difficulties in managing a large combined firm outweigh the operating and financial synergies in large acquisitions and result in the deterioration of operating performance.

Based on the above discussion, the study proposes the following testable hypotheses:

$H_0$3.3: There is no relation between the acquiring firm abnormal return and the relative size of target to acquiring firm.

H_a3.3: There is a positive relation between the acquiring firm abnormal return and the relative size of target to acquiring firm.

2. Industry Relatedness

Another issue in determining the effects of acquisitions is whether acquirer's abnormal returns depend upon the related industry acquisition. This variable captures the industry similarities between the acquirer and the target. Firms are defined to be related when target firms operate in the same industry as the acquiring firm. This study uses the industry classification of the Bursa Malaysia to test this hypothesis.

In general, firms find that it is often easier to follow a focused strategy in the industry in which the firm is currently operating than to diversify into an unknown industry in which they lack experience (Hitt, Ireland and Hoskisson, 2005). Moeller and Schlingemann (2005) find that acquirer returns are significantly and positively associated with a deal between two firms in non-conglomerate mergers (related industry). On the other hand, conglomerate acquisition (nonrelated industry) occurs when firms sought to expand by acquiring other firms in a nonrelated industry. The reason of acquiring firm for conglomerate acquisition is to enter industries that are more profitable than their current industry (Gaughan, 2002). The wealth impact on a conglomerate expansion is hard to determine.

Based on the above discussion, the study proposes the following testable hypotheses:

$H_0$3.4: There is no significant difference of abnormal return between acquirers of non-conglomerate and conglomerate targets, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean of AR (and CAR) for acquirers of non-conglomerate target.

μ_2 = mean of AR (and CAR) for acquirers of conglomerate target.

H_a3.4: The returns of acquirers of non-conglomerate target is greater than conglomerate targets, i.e., $\mu_1 > \mu_2$.

3.3.2 Target Status Hypothesis

3.3.2.1 Acquirers of Public and Private Targets

Target firms may be classified into two types based on whether they are listed in a stock exchange or not listed (privately held). Because of the difference in the amount of market information available on these two types of firms, it may be expected that the listing status of the targets would have an influence on the share prices of the acquiring firms during the announcement. Thus, this study further examines the impact of target status on acquiring firms in public acquisition and private acquisition. This aspect is highly relevant to the reality of acquisitions because in our sample the majority of acquired target firms are unlisted private firms.

Despite the large number of acquisitions involving unlisted private targets, there are very few studies focusing on them. Available evidence is limited primarily to Chang (1998), Ang and Kohers (2001) and Fuller *et al.* (2002), all based on the US experience, and the most recent study is Draper and Paudyal (2006) in the UK. The

few empirical studies on private versus public acquisition unanimously show that short-term announcement returns for the acquiring firms are positive for private acquisitions and negative for public acquisitions. There are several hypotheses explaining the reasons for differences in returns to acquirers of public and private targets. Two explanations have been proposed by Chang (1998) and Draper and Paudyal (2006) to explain why private acquisitions should generate greater returns than public acquisitions, one is the managerial motive and the other is the liquidity hypothesis.

The managerial motive hypothesis implies that acquiring firm's managers may seek either to maximize their private benefits accruing to them or maximize shareholders' wealth. The private benefits may refer to the size and the prestige of the firm that manager's control. Unlisted private firms are generally smaller and less-known than publicly listed firms and generally do not serve the private benefits. However, Draper and Paudyal (2006) suggest that acquisitions of private target firms are more motivated by the potential synergies from the acquisition and a desire to maximize shareholders' wealth. Consequently, the market may observe the acquisition of private target firms more favourably than the acquisition of public targets. This suggests acquirers of private targets should gain more than acquirers of public targets.

On the other hand the liquidity hypothesis says that acquiring firms pay a liquidity premium to the illiquid private firms as opposed to the more liquid listed firms. The market for private target firms is illiquid because private targets cannot be bought and sold as easily as public target firms. As such acquirers have more bargaining

power and are likely to cause under-payment for the private target firms. This suggests that acquirers of private targets should gain more than acquirers of public targets.

The bargaining power hypothesis contradicts previous arguments in predicting lesser gains to acquirers of a private target compared to acquiring a public target. Draper and Paudyal (2006) suggest that private firms have greater bargaining power by virtue of being closely held and having a high proportion of manager ownership. As such private firms will only enter into acquisition agreements when it gives them maximum benefits.

Based on the above discussion, the study proposes the following testable hypotheses:

H4: Target Status Hypothesis

$H_0$4.1: There is no significant abnormal return for acquirers of public listed target.

H_a4.1: There is a negative abnormal return for acquirers of public listed target.

$H_0$4.2: There is no significant abnormal return for acquirers of unlisted private target.

H_a4.2: There is a positive abnormal return for acquirers of unlisted private target.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{AR_t} = 0, \quad and \quad \overline{CAR}_{T1,T2} = 0 \qquad t$ = -30,…0,…+30.

Alternative: the $\overline{AR_t} \neq 0, \quad and \quad \overline{CAR}_{T1,T2} \neq 0 \qquad t$ = -30,…0,…+30.

$H_0$4.3: There is no difference of the abnormal return between acquirers of unlisted private target and acquirers of public listed target, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean of AR (and CAR) for acquirers of unlisted private target.

μ_2 = mean of AR (and CAR) for acquirers of public listed target.

H_a4.3: The return of acquirers of unlisted private target is greater than acquirers of listed target, i.e., $\mu_1 > \mu_2$.

3.3.2.2 Target Status and Risk Hypothesis

Previous studies (Chang, 1998; Fuller *et al.,* 2002; and Conn *et al.,* 2005) only examine the acquiring firm's return between acquirers of private and public firms. This study expands the research by further examining the risk implications on acquirers of private and public firms. Acquiring an unlisted private target is generally more risky than acquiring a public listed target. Yuce and Ng (2005) and Capron and Shen (2006) state that this is because: (1) the fair values of unlisted private targets are difficult to assess as they are not subject to capital market pricing; and (2) unlisted private firms used to be small size they have more volatile cash flows, and difficulty in raising capital. Since private targets are not listed on the stock exchange, acquirers have to decide on their offer prices with incomplete information. This implies that acquirers of unlisted private targets face higher risks than making acquisitions of public targets. In order to compensate for the higher risk, acquirers will offer lower prices for private targets.

There are no published studies found that examined changes in risk to acquiring firms in acquisition of public versus private target. Amihud, DeLong and Saunders (2002) study the reaction of share prices to acquisition announcements, and the

relationship between this share price reaction and changes in risk brought about by cross-border bank mergers. They calculate the change in the beta coefficient of the acquiring firm's share return and compare its magnitude after the acquisition to that before the acquisition was announced. They conclude that, on average, cross-border mergers to not change the risk of acquiring firms in any significant way.

Based on the above discussion, the study proposes the following testable hypotheses:

H5: Target Status and Risk Hypothesis

$H_0$5: There is no difference in the change of risks between acquirers of public listed targets and acquirers of unlisted private targets.

H_a5: The change of risks to acquirers of unlisted private targets is greater than the change of risks when acquiring public targets.

This hypothesis is tested by comparing two measures of risk, i.e. the standard deviation and beta, between acquirers of private and public targets. The standard deviation and beta is often used by investors to measure the risk of a stock or a stock portfolio.

3.3.3 Methods of Payment

In general there are two most commonly used methods of settlement in acquisition; i.e., by cash or shares, or a combination of both. In a perfect market with certainty one would expect the investors to be indifferent between the two methods of payment as there would be no difference in investor wealth outcomes. However, in

reality this is not the case and investors have very different preferences for certain methods of payment. At the same time, the acquirer and target firms have a definite preference for the choice of methods of payment based on the level of information asymmetry.

3.3.3.1 Information-signalling Hypotheses

The information signalling model of Myers and Majluf (1984) argues that when financing an investment project (i.e., acquisition), acquiring firm managers will want to use shares settlement if they believe their shares are overvalued. On the other hand, if the acquiring firm managers believe that their share is undervalued, they will prefer cash settlement. Thus, due to information asymmetry the method of payment acts as the information signal, whereby investors interpret cash offers as good news (shares are undervalued) and share offers as bad news (shares are overvalued). Consequently, the proposed cash offer in acquisition is expected to have a positive impact, whereas the share offer is expected to have a negative impact on the acquiring firm's share price. This suggests that acquiring firms with cash offers should gain more than with share offers.

Huang and Walking (1987), Travlos (1987) and Moeller and Schlingemann (2004) study the impact of methods of payment on acquiring firm returns. Their findings support the idea that when acquisitions are financed with cash, acquiring and target firms have higher gains compared to if it is share-financed. However, Suk and Sung (1997) find no significant abnormal returns for cash offers and share offers.

Based on the above discussion, the study proposes the following testable hypotheses:

H6: Acquiring Firm Returns and Information-signalling Hypothesis

$H_0$6: There is no difference in the acquiring firm's abnormal return between cash acquisition and share acquisition, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean AR (and CAR) acquiring firm of all-cash offer.

μ_2 = mean AR (and CAR) acquiring firm of all-share offer.

H_a6: The return to acquiring firm in cash settlement is greater than in share settlement, i.e., $\mu_1 > \mu_2$.

3.3.3.2 Target Returns and Tax Hypothesis

Studies in the US in general find that cash settlement yields greater abnormal returns than share settlement and argue that this difference may be explained by the difference in capital gains tax liabilities of the target shareholders. The empirical studies[9] on tax hypothesis state that when target shareholders sell their shares in a cash offer, they must pay capital gains tax immediately. In share exchange offers, capital gains are not realised until they decide to sell their shares. Hence target shareholders can delay the payment of capital gains taxes until they sell the acquiring firm's share. Thus, target shareholders are expected to require higher returns in cash offers than in share exchange offers because the acquirer must compensate target shareholders for the immediate capital gains tax payment.

[9] See e.g. Wansley, Lane and Yang (1983); Carleton *et al.* (1983); Huang and Walking (1987); Franks, Harris and Mayer (1988); Hayn (1989); and Betton, Eckbo and Thorburn (2008).

The tax effect on the acquiring firms is less clear. Among the earliest studies, Frank, Harris and Mayer (1988) study the impact of methods of payment in UK acquiring firms, and Auerbach and Reishus (1988) study the US acquisitions. They find that even in cases where there are significant tax benefits they are not statistically significant in explaining the choice of methods of payment and acquiring firm returns. Brown and Ryngaert (1991) state that when cash is used for an acquisition, the acquiring firms will be able to step up the basis of the target assets if their market values of such assets exceed their tax bases, and as a result increase tax shields. Thus, acquiring firms who use cash offers are willing to pay a higher premium to target shareholders. They also find that share offers are less likely to be found in taxable offers. In Malaysia, the Income Tax Act 1967 does not allow an acquiring firm to utilize the unused tax losses of a target firm to offset the income.

Hence, the study proposes the following testable hypotheses:

H7: Target Firm Returns and Tax Hypothesis

$H_0$7: There is no difference in the target's abnormal return between cash acquisition and share acquisition, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean of AR (and CAR) for target firm in cash acquisition

μ_2 = mean of AR (and CAR) for target firm in share acquisition

H_a7: There is a difference in the target's abnormal return between cash acquisition and share acquisition, i.e., $\mu_1 \neq \mu_2$.

3.3.3.3 Methods of Payment and Target Status Hypotheses

In this section the method of payment are further subdivided into public and private subsamples. Previous work of Chang (1998), Fuller *et al.* (2002), and Draper and Paudyal (2006) find that the gains to acquirers of private targets using share offers are higher compared to cash offers. The share offers give higher abnormal returns because: (a) they create large block shareholders from private targets that confer monitoring benefits, and (b) as private targets have concentrated ownership, which provide shareholders with powerful incentives to examine the acquirer closely, especially when payment is in share offers. This indirectly reduces the information asymmetry.

Based on the above discussion, the study proposes the following testable null hypotheses:

H8: Acquiring Firm Returns by Target Status and Method of Payment Hypothesis

Public Target

$H_0$8.1: There is no abnormal return for acquirers of public targets in cash offers.

H_a8.1: There is a positive abnormal return for acquirers of public targets in cash offers.

$H_0$8.2: There is no abnormal return for acquirers of public targets in share offers.

H_a8.2: There is a negative abnormal return for acquirers of public targets in share offers.

$H_0$8.3: There is no difference in the acquirers of public target's abnormal return between cash offer and share offer, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean AR (and CAR) acquirers of public target in all-cash offer.

μ_2 = mean AR (and CAR) acquirer of public target in all-share offer.

H_a8.3: The abnormal return of acquirers of public targets in cash offer is greater than share offer, i.e., $\mu_1 > \mu_2$.

Private Target

$H_0$8.4: There is no abnormal return for the acquirers of private targets in cash offers.

H_a8.4: There is a positive abnormal return for the acquirers of private targets in cash offers.

$H_0$8.5: There is no abnormal return for acquirers of private targets in share offers.

H_a8.5: There is a positive abnormal return for acquirers of private targets in share offers.

$H_0$8.6: There is no difference in the acquirers of private target's abnormal return between share offer and cash offer, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean AR (and CAR) acquirers of private target in all-share offer.

μ_2 = mean AR (and CAR) acquirer of private target in all-cash offer.

H_a8.6: The abnormal returns of acquirers of private target's in share offers is greater than cash offer, i.e., $\mu_1 > \mu_2$.

3.3.4 Acquiring Firms Long-Term Post-acquisition Performance

3.3.4.1 Long-term Value Creation

Neoclassical profit maximization theory assumes that firm management acts to maximize the shareholders wealth. In terms of acquisition, shareholders should not suffer wealth decreases as a result of their firm acquiring other firms (Limmack, 1991). Most acquisition event studies focus on investigating the wealth creation by examining share price movements during the announcement period. This approach implicitly assumes that market is efficient, hence able to immediately incorporating the full impact of the acquisition on its announcement. However, there are a few studies that focus on the long-term impact of an acquisition to the acquiring firm. In a way, the long-term studies serve to compliment the short-term studies.

A long-term study typically traces acquiring firm performance over a three to five year period after acquisition. In an efficient market situation, the long-term post-acquisition abnormal performance should not be expected to deviate significantly from zero. If it takes a positive trend, this tends to be against market efficiency or tends to signal incomplete disclosure of information. If it takes a negative trend, it signals market overreaction to the announcement. Previous long-terms studies generally find that acquiring firms are found to earn negative returns. These findings led Jensen and Ruback (1983, p.20) to remark ‘‘*These post-outcome negative abnormal returns are unsettling because they are inconsistent with market efficiency and suggest that changes in stock prices during takeovers overestimate the future efficiency gains from mergers.’*

However, recent evidence on long-terms studies reveals that the findings are not consistent. Agrawal, Jaffe and Mandelker (1992), Laughran and Vijh (1997), Andrade, Mitchell and Stafford (2001) and Sudarsanam and Mahate (2006) report that acquiring firms experience significantly negative abnormal returns over one to three years after the acquisition. On the other hand, Franks, Harris and Titman (1991), Jakobsen and Voetmann (2003) and Gregory and McCorriston (2005) find that the long-term post-acquisition abnormal returns after three years is not statistically different from zero.

Based on the above discussion, this study proposes the following testable hypotheses:

H9: Long-term Value Creation Hypothesis

$H_0$9: There is no significant abnormal return for acquiring firm in long-term.

H_a9: There is a significant abnormal return for acquiring firm in long-term.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{CMAR}_{T1,T2} = 0$, *or* $\overline{BHAR}_{T1,T2} = 0$ t = 12...to...36.

Alternative: the $\overline{CMAR}_{T1,T2} \neq 0$, *or* $\overline{BHAR}_{T1,T2} \neq 0$ t = 12...to...36.

3.3.4.2 Model Sensitivity

Martynova, Oosting and Renneboong (2006) and Martynova, and Renneboong (2008) mentions that even for the US evidence, research on the long-term performance is rather limited and its conclusions are contradictory. In contrast to event studies over short-term, Loughran and Vijh (1997), Rau and Vermaelen (1998), Mitchell and Stafford (2000) and Sudarsanam and Mahate (2003) state that

long-term event studies are sensitive to the model use for computing normal returns. This may partially explain the conflicting conclusions of past research.

In acquisition studies, the most popular measurements for long-term abnormal return performance are the cumulative market-adjusted abnormal return (CMAR) and the buy-and-hold abnormal return (BHAR). Loughran and Vijh (1997) introduce the buy-and-hold technique and find that acquiring firms experience significant underperformance in the period five years after acquisition. Others, such as Malatesta (1983), Limmack (1991) and Gregory (1997) using the cumulative abnormal return methodology, find that acquiring firms do experience significant underperformance in the first three years following the acquisition. However, other studies do not find significant under-performance, such as studies by Mandelker (1974) using a risk-adjusted model and Langetieg (1978) using a market-adjusted model.

Agrawal and Jaffe (2000) reviews twenty-two US and UK studies relating to the long-term post-acquisition performance and discusses the associated methodological and conceptual problems in assessing such performance. Some studies such as Agrawal *et al.* (1992), Loderer and Martin (1992) and Gregory (1997) attempt to improve the computations of long-term post-acquisition abnormal returns by adjusting for firm size and beta risk. However, Fama and French (1993) argue that control of firm size and beta are not sufficient to capture the cross sectional variation in share returns.

In general there are two main methods used by previous studies to study the long-term performance, i.e. the cumulative market-adjusted abnormal return (CMAR) and the buy-and-hold method (BHAR). Both methods seem to agree qualitatively in their findings of negative abnormal returns, but differ in the magnitude. However, recent studies using the BHAR seem to suggest insignificance in the long-term performance. As the methodological choices draw criticism, this study paid considerable attention to this aspect. Both the CMAR and BHAR are used to estimate the post-acquisition performance to mitigate the methodological problems in the long-term performance.

Based on the above discussion, this study proposes the following testable hypotheses:

H10: Model Sensitivity Hypothesis

$H_0$10: There is no significant difference in cumulative market-adjusted abnormal return (CMAR) and buy-and-hold abnormal returns (BHAR) to acquirers in the long-term post-acquisition period.

H_a10: There is a significant difference in cumulative market-adjusted abnormal return (CMAR) and buy-and-hold abnormal returns (BHAR) to acquirers in the long-term post-acquisition period.

3.3.4.3 Determinants of Acquiring Firms Post-acquisition Performance

Pervious studies propose various deal-specific factors and firm characteristics affecting the acquiring firm's long-term post-acquisition performance. There include target status, methods of payment, overlapping acquisitions, acquiring firm size, and acquiring firm's book-to-market ratio.

1. Acquiring Firm Post-acquisition Performance by Target Status

Chang (1998), Fuller *et al.* (2002) and Draper and Paudyal (2006) find that acquirers of private targets gain, whereas acquirers of public targets suffer losses around the acquisition announcement period. While for long-term post-acquisition performance by target status, evidence is limited to the acquirers of public listed targets, thus far, Moeller, Schlingemann and Stulz (2004) and Conn *et al.* (2005) are the only studies. They find poor performance for acquirers of public targets after the acquisition for a period of three-years.

Based on the above information, the study proposes the following testable hypotheses:

H11: Post-acquisitions Performance by Target Status Hypothesis

$H_0$11.1: There is no significant abnormal return for acquirers of public listed target.

H_a11.1: There is a significant abnormal return for acquirers of public listed target.

$H_0$11.2: There is no significant abnormal return for acquirers of unlisted private target.

H_a11.2: There is a significant abnormal return for acquirers of unlisted private target.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{CMAR}_{T1,T2} = 0$, *or* $\overline{BHAR}_{T1,T2} = 0$ t = 12...to...36.

Alternative: the $\overline{CMAR}_{T1,T2} \neq 0$, *or* $\overline{BHAR}_{T1,T2} \neq 0$ t = 12...to...36.

The above hypothesis is extended from the H4 target status hypothesis in short-term to the long-term post-acquisition performance. Thus, if the long-term results mirror the short-term findings, then the conclusion based on short-term findings will be well supported.

2. Acquiring Firm Returns by Method of Payment and Target Status

Gregory (1997), Loughran and Vijh (1997), Rao and Vermaelen (1998), and Mitchell and Stafford (2000) support the information asymmetry hypothesis in which acquiring firms with cash offer payments experience higher abnormal returns in the long-term post-acquisition period. Loughran and Vijh (1997) also indicate that the short-term windows are not sufficient to capture the correction in response to the negative signals conveyed by the share-offer acquisition. However, Frank, Harris and Titman (1991) did not find any significant difference in abnormal returns for different methods of payment.

As discussed earlier (section 3.2.3.2) the choice of method of payment will act as information-signalling to the markets. Assuming this information is true; the acquirers in share offers should underperform more than cash offers over long period. Shleifer and Vishny (2003) suggest that the share offers driven by misvaluation in the long-term should converge to the fundamental value, which is lower than the valuation at the time of the announcement.

Based on the above information, the study proposes the following testable hypotheses:

H12: Post-acquisition Performance by Method of Payment and Target Status Hypothesis

Public Target

$H_0$12.1: There is no abnormal return for acquirers of public targets in cash offers in the long-run.

H_a12.1: There is an abnormal return for acquirers of public targets in cash offers in the long-run.

$H_0$12.2: There is no abnormal return for acquirers of public targets in share offers in the long-run.

H_a12.2: There is an abnormal return for acquirers of public targets in share offers in the long-run.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{CMAR}_{T1,T2} = 0$, *or* $\overline{BHAR}_{T1,T2} = 0$ t = 12...to...36.

Alternative: the $\overline{CMAR}_{T1,T2} \neq 0$, *or* $\overline{BHAR}_{T1,T2} \neq 0$ t = 12...to...36.

$H_0$12.3: There is no difference in the acquirers of public target's abnormal return between cash offer and share offer in the long-run, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean CMAR (and BHAR) acquirers of public target in all-cash offer.

μ_2 = mean CMAR (and BHAR) acquirer of public target in all-share offer.

H_a12.3: There is significant difference in the acquirers of public target's abnormal return between cash offer and share offer in the long-run, i.e., $\mu_1 \neq \mu_2$.

Private Target

$H_0$12.4: There is no abnormal return for the acquirers of private targets in cash offers in the long-run.

H_a12.4: There is an abnormal return for the acquirers of private targets in cash offers in the long-run.

$H_0$12.5: There is no abnormal return for acquirers of private targets in share offers in the long-run.

H_a12.5: There is an abnormal return for acquirers of private targets in share offers in the long-run.

The null hypothesis and alternative hypothesis are tested as follow:

Null: the $\overline{CMAR}_{T1,T2} = 0$, *or* $\overline{BHAR}_{T1,T2} = 0$ t = 12...to...36.

Alternative: the $\overline{CMAR}_{T1,T2} \neq 0$, *or* $\overline{BHAR}_{T1,T2} \neq 0$ t = 12...to...36.

$H_0$12.6: There is no difference in the acquirers of private target's abnormal return between share offer and cash offer in the long-run, i.e., $\mu_1 = \mu_2$, where

μ_1 = mean CMAR (and BHAR) acquirers of private target in all-share offer.

μ_2 = mean CMAR (and BHAR) acquirer of private target in all-cash offer.

H_a12.6: There is a significant difference in the acquirers of private target's abnormal return between share offer and cash offer in the long-run, i.e., $\mu_1 \neq \mu_2$.

3. Adjustment of Overlapping Acquisition

Tuch and O'Sullivan (2007) have noted that a problem in assessing the long-term performance of the acquiring firm is the overlapping events (i.e., multiple acquisitions within the three-year period). Asquith, Bruner and Mullins (1983) have found that acquiring firms receive positive cumulative excess returns throughout merger programmes involving multiple acquisitions (up to four) for the same acquiring firm. In view of possible influence of multiple acquisitions during the three-year study window, this study split the sample into two subsamples; one with multiple acquisitions and the other with single acquisition and then recalculates the CMAR and the BHAR.

Based on the above information, the study proposes the following testable hypotheses:

H13: Adjustment of Overlapping Acquisitions Hypothesis

$H_0$13: There is no significant difference of CMAR (and BHAR) between acquirers in single acquisitions and acquirers in multiple acquisitions.

H_a13: There is a significant difference of CMAR (and BHAR) between acquirers in single acquisitions and acquirers in multiple acquisitions.

4. Acquiring Firm Size

The 'size effect' in acquisition was first formulated by Asquith, Bruner and Mullins (1983) – *'If the acquiring firm's value is affected by a merger, the observed abnormal return should be related to the relative size of the acquiring and target firm'*. Their study confirms that such a relationship does exist. Fama and French (1992) also find that firm size has a relationship with the expected stock returns; the

small firms (in terms of market capitalization) have a higher expected return than big firms.

However, some economists remain unconvinced about the robustness of the results documented by Fama and French (1992) in relation to firm size, book-to-market ratios, and share returns (e.g., Black, 1993; and MacKinlay, 1995). Barber and Lyon (1997b, p.875) state that '*the most obvious means of evaluating the data-snooping hypothesis is to test the robustness of the results documented by Fama and French (1992) using, for example, different time periods (see Davis, 1994), different countries (see Chan, Hamao, and Lakonishok, 1991), or a holdout sample'*.

Barber and Lyon (1997b) test the robustness of the relation between firm size, book-to-market ratio, and share returns, on both the financial and nonfinancial firms. The findings indicate that during the period 1984 to 1988, big nonfinancial (financial) firms earned a mean monthly return of 1.74% (1.67%), while small nonfinancial (financial) firms earned a mean monthly return of 0.76% (0.80%). However, this pattern reversed itself from 1989 to 1994; the small firms outperformed the big firms.

In the long-term acquiring firm's share performance study, Franks, Harris and Titman (1991) categorize the sample into five groups based on the relative size of the acquiring firm. The rationale for controlling for firm size when assessing the long-term performance of acquiring firms is well established by Franks, Harris and Titman (1991), Agrawal, Jaffe and Mandelker (1992) and Rau and Vermaelen (1998). There is an empirical association between firm size and returns in which

small acquiring firms outperforms large ones. This might imply that, other things being equal, if firm size is not controlled one may expect to observe a negative mean abnormal return to acquiring firms. However, Agrawal, Jaffe and Mandelker (1992) find that controlling for firm size does not eliminate the negative drift in post-merger returns.

This study measures the size of the acquiring firm by the magnitude of its market value, and the median as the cut-off point. It then uses the median size to allocate the acquiring samples into two groups, large size acquirer or small size acquirer. Markides and Ittner (1994) use this variable to identify the impact of the acquiring firm's size on the abnormal returns generated.

Based on the above information, the study proposes the following testable hypotheses:

H14: Acquiring Firm Size Hypothesis

$H_0$14: There is no significant relationship between post-acquisition performance and acquiring firm size.

H_a14: There is a significant relationship between post-acquisition performance and acquiring firm size.

5. Growth Firms and Value Firms

Fama and French (1992, 1993), and Barber and Lyon (1997a and 1997b) find that book-to-market ratio has a relationship with the expected stock returns. Rau and Vermaelen (1998) find that the post-acquisition performance of value firms (high book-to-market ratio) is better than the glamour/growth firms (low book-to-market ratio). Lakonishok *et al*. (1994) suggest that the high returns associated with high book-to-market ratio firms are generated by investors who incorrectly extrapolate the past earnings growth rate of firms. They suggest that investors are overly pessimistic about the firm's managerial capacities that have done well in the past and are overly pessimistic about those that have done poorly.

Fama and French (1995), Chen and Zhang (1998), and Griffin and Lemmon (2002) show that value firms (high book-to-market ratio) have persistently low earnings, high financial leverage, and more earnings uncertainty compared to the growth firms (low book-to-market ratio). Thus, investors expect higher returns for these firms. Further, Griffin and Lemmon (2002) find the strongest evidence of overpricing in growth firms (low book-to-market ratio) with high distress risk and expected returns. In this study, low and high book-to-market ratio groups are determined using the median as the cut-off point and then using it to allocate acquiring samples to two groups, growth firm (low book-to-market ratio) or value firm (high book-to-market ratio). Based on the above information, the study proposes the following testable hypotheses:

Based on the above information, the study proposes the following testable hypotheses:

H15: Growth and Value Firm Hypothesis

$H_0$15: There is no significant relationship between post-acquisition performance and acquiring firm book-to-market ratio.

H_a15: There is a significant relationship between post-acquisition performance and acquiring firm book-to-market ratio.

6. Matching Firm Returns as a Benchmark

Barber and Lyon (1997a) and Lyon and Braber and Tsai (1999) recommend using a control sample approach in which acquiring firms are matched using the firm size and book-to-market ratio. A few of the previous studies, for example Loughran and Vijh (1997) and Datta, Datta and Raman (2001) use the matched-pair methodology to study the long-term performance of the acquiring firms. The advantage of this technique is to isolate the effect of acquisition to the acquiring firm above the normal performance of an otherwise similar firm.

Duta and Jog (2009, p.1403) state that:

> "*…the control firm approach eliminates the new listing bias (since both the sample and control firm must be listed in the identified event month), the rebalancing bias (since both the sample and control firm are calculated without rebalancing), and the skewness problem (since the sample and the control firms are equally likely to experience large positive returns)".*

However, this technique is heavily dependent on finding a perfect match for each of the acquiring firms, which may be difficult to find. The control firm procedure (such

as matching firms based on size and book-to-market ratio and industry) is based on the study Barber and Lyon (1997a).

Based on the above information, the study proposes the following testable hypotheses:

H16: Matching Portfolio Hypothesis

$H_0$16: There is no significant difference between the acquiring firm returns and the matched firm returns.

H_a16: There is a significant difference between the acquiring firm returns and the matched firm returns.

3.4 DATA

3.4.1 Sample Selection

The data is a sample of acquisition announcements firms that were listed on the Malaysian stock exchange ("Bursa Malaysia"). The sample set covers the period from 1st January 2000 until 31st December 2004. Due to different statutory requirements and materially different types of operations, all banks, insurance and unit trust companies were excluded from this study.

The information on corporate acquisition, the acquisition announcement date, method of payment and other information were obtained from several sources. Prior to July 2003, the source of data was the 'Record of Issues' Section of the KLSE *Investor Digest*, a publication of Bursa Malaysia. The data was hand-collected from

this publication. The data for July 2003 onwards was available from the Bursa Malaysia's website.

Each announcement date is cross-checked with the *Business Times* daily newspaper. The event date taken is the first announcement that appeared in the press regarding the acquisition. There are three categories of data collected for this study:

1) The firm daily and monthly share prices and the Kuala Lumpur Composite Index (KLCI) are obtained from the Bloomberg database;
2) The date of acquisition announcements and the method of payment are obtained from the KLSE *Investor Digest*, and the Bursa Malaysia website under "announcement" web-page; and
3) Corporate information on book-to-market ratio and number of shares issued is obtained from the sources: the Annual Company Handbook series and the Bloomberg database.

To be included in the study the acquisition size must be more than 33% of the voting rights of the targets firm with a purchase value of not less than RM10 million.[10] As it turns up all samples in this study are partial acquisition of assets and as such the target firm continue to function as independent firm after acquisition. This study uses KLCI[11] as the market index. The KLCI is a value-weighted index, to ensure it is reliable, efficient, and sensitive to short-term share market movement, as well as responsive to

[10] Purchase stake must be more than 33% of voting rights of target firm in order to create the holding company as provided for under Part II Section 12 of the Malaysian Code on Takeovers and Mergers 1998. Asquith, Bruner and Mullins (1983) suggest that if the investment in the target is small relative to the total value of the acquiring firm, the change in value from acquisition may not cause much change either in the acquirer's share price or other performance measures. (On 2 September 1998, the Central Bank of Malaysia implemented a fixed exchange rate in Malaysia after the Asian financial crisis. The Central Bank announced that the exchange rate of the Ringgit would be pegged against the U.S. Dollar at RM3.80 = 1USD).

[11] See Appendix B for the KLCI information. The Kuala Lumpur Composite Index (KLCI) is now known as the FTSE Bursa Malaysia KLCI and adopts the FTSE global index standard from 6 July 2009 onwards.

the underlying structural changes and trends in the economy. Thus, the KLCI can be used as one of the leading indicators of the market portfolio. Further, many Malaysian event studies use the KLCI as a proxy of market returns (e.g., Mat-Nor, 1993a; Isa and Yap, 2003; Chong, Liu and Tan, 2006; and Nurwati, Campbell and Goodacre, 2007).

3.4.2 Characteristics of Sample Firms

Panel A of Table 3.1 presents the summary of the yearly distribution of the acquisition activities that satisfy the criteria discussed in the above section during the observation period for years 2000 to 2004. During the five years of observation, acquisition activities were mainly concentrated in 2002, about 50 acquisitions (30% upon the total). While in 2004 there were only 22 acquisitions, the lowest during the observation period.

Panel B of Table 3.1 refers to the acquisitions that further categorizes according to the acquirers of listed (public) targets and acquirers of unlisted (private) targets firms. It shows that the number of acquisition of unlisted private firms is far higher than the acquisitions of publicly listed target firms. The highest number of offers received by the unlisted target firms was recorded in 2002 with 41 offers, whilst the lowest was in 2004 with 16 offers. During the observation period, the total offers received by the publicly listed target firms were 40 or 23.67% of the total sample. Whereas, the total offers received by the unlisted target firms was 129 acquisitions or 76.33% of the total sample. The data generated indicates that unlisted target firms are more popular for being the target of Malaysian acquirers compared to listed target firms. The analysis excludes the unlisted target firms, as there are unquoted firms and information is not available.

Table 3.1

Characteristics of sample firms

Panel A: Annual Distribution of Acquisitions, 2000-2004

Year of Acquisition Announcement	Acquisitions Number	Percentage %
2000	35	20.71%
2001	23	13.61%
2002	50	29.59%
2003	39	23.07%
2004	22	13.02%
Total	***169***	***100%***

Panel B: Acquisitions by Target Status, 2000-2004

Year	Public Acquisitions		Private Acquisitions		Total Number of Firms	Total Percentage $(\%)_c$
	Number of Firms	Percentage $(\%)_a$	Number of Firms	Percentage $(\%)_b$		
2000	8	4.73%	27	15.98%	35	20.71%
2001	6	3.55%	17	10.06%	23	13.61%
2002	9	5.33%	41	24.26%	50	29.59%
2003	11	6.51%	28	16.56%	39	23.07%
2004	6	3.55%	16	9.47%	22	13.02%
Total	***40***	***23.67%***	***129***	***76.33%***	***169***	***100%***

Panel C: Acquisitions by Methods of Payment, 2000-2004

Year	Listed – Acquiring Firms				Listed – Target Firms			
	Cash Offers	Share Offers	Mixed Offers	Total	Cash Offers	Share Offers	Mixed Offers	Total
2000	25	5	5	35	4	3	1	8
2001	15	5	3	23	3	3	0	6
2002	35	7	8	50	7	1	1	9
2003	28	8	3	39	8	1	2	11
2004	12	7	3	22	2	4	0	6
Total	***115***	***32***	***22***	***169***	***24***	***12***	***4***	***40***

Source: Own calculation based on KLSE Investor Digest and Bursa Malaysia website information.

Notes: Panel A shows the annual distribution of announcement dates of corporate acquisitions during the observation period from 2000 to 2004. Panel B shows the annual distribution of announcement dates of corporate acquisitions classified according to target status. Public acquisitions refer to target is a listed (public) firm and private acquisitions refer to target is an unlisted (private) firm. Panel C reports the annual distribution of announcement dates of corporate acquisitions classified according to method of payment for acquiring and target firms. Cash (share) offers are when 100% of the consideration is cash (share); and the mixed offers are combination of cash and share payment.

$_a$ and $_b$ refer to the number of firms divided by the total number of firms.

$_c$ refers to the public acquisitions percentage plus private acquisitions percentage.

The acquisitions are further classified into method of payment groups: pure cash payment, pure share payment, and mixed payment (combination of cash and share payment). Panel C of Table 3.1 shows that pure cash payments are dominant throughout the observation period. The issuance of pure share and mixed payments appear to be less popular as the choice of method of payment in the acquisition. This could be due to the change of regulations, as from 1995 the regulations allowed more freedom to cash acquisitions in the sense that such acquisitions no longer needed approval from the Securities Commission.

Another possible explanation for the increased use of cash payment is the added incentive where money borrowed for such acquisitions is tax deductible. Moreover, the procedures of cash payments are simpler and faster than share payments. The empirical evidence for a shift towards share payments seems to be weak and less pronounced than compared to the US market.

3.5 RESEARCH METHODOLOGY

The primary research objective of this study is to examine the impact of acquisition on a firm's stock price reaction in both the short- and long-term. This study is concerned with the wealth effect of the acquisition announcements on acquiring and target firms on stock price on daily basis in the short horizon, and on monthly basis in the long horizon. The impact of acquisition announcement on share price performance are further analysed on the target status (acquisition of public listed target and acquisition of unlisted private target), and choice of method of payment (classify into cash offer and share offer).

The event-study methodology will be used to determine the directional effect of such events on share price. Fama *et al.* (1969) state the event-study method is based on the assumption that capital markets are efficient, and that if the information communicated to the market contains any useful or surprising content an abnormal return will occur. Thus, the stock prices are viewed as reliable indicators of a firm's value. The amount of change in the price of a security after an event, relative to its pre-event price, will reflect the market's unbiased estimate of the economic value of the event (Brown and Warner, 1985).

3.5.1 Event Study

The measurement of abnormal stock returns is widely used to determine whether there is an "abnormal" stock price effect associated with an unanticipated event (i.e., acquisition announcement). This is referred to as residual analysis, or event study. The event study method is widely used because with the assumption of rationality in the market place, the share prices will immediately reflect the effects of the event. Therefore, the economic impact of the acquisition event can be measured over a short period. Fama, Fisher, Jansen and Roll [FFJR] (1969) and Ball and Brown (1968) introduce a technique to identify the impact of a specific event on a security's rate of return. Their approach purges market influences from the rate of return on a security during the information event time period leaving an adjusted rate of return, which represents the impact of event specific information.

Many studies such as Henderson, Jr (1990) and Campbell, Lo and MacKinlay (1997) have followed FFJR (1969) and Ball and Brown's (1968) steps to conduct an event study. An event study can be categorized into the following steps:

1. Define the event and identify the timing of the announcement occurrence, when the market received the news.
2. Arrange the stock performance data relative to the timing of the event.
3. Estimate the normal returns of the individual firm or the returns in the absence of this news.
4. Measure the abnormal returns for each firm, which is the difference between observed returns and the estimated or normal returns.
5. Aggregate the abnormal returns across firms and across time.
6. Statistically test the aggregated returns to determine whether the abnormal returns are significant.

The event methodology considers a classic design due to its simplicity and functionality. The first two steps of the event study methodology are discussed in sections 3.4.1.1 and 3.4.1.2, and steps 3 to 6 are discussed in section 3.4.1.3.

3.5.1.1 Event Definition and Event Date

The most important is the choice of event that one wants to study. The event should be something of wide interest in the field. A good story is needed to explain anticipated market reaction to a particular bit of news (Henderson, Jr. 1990). If the explanation of market reaction is obvious, time is of the essence.

The first two steps in the event methodology are to identify the event of interest and the span of time for stock prices to react; this period of time is called the event window. The event of interest in this study is the acquisition offer announcement information that relates to the acquiring firm's intention to acquire a target firm. After defining the event, the next step is to determine when it takes place. The issue is not when an acquisition event occurred, but when the markets learn of the news. The date of the event will be the date the firm announced the acquisition offer to the target firm and this information is available in the press. Usually this date is designated as day or month zero [0] in event time. In event studies all time is kept relative to the event day or month. Brown and Warner (1980 and 1985) and MacKinlay's (1997) studies have emphasized the importance of carefully defining the event date. They find that more days or months must be included in the event window because of the inability to really determine the actual event date.

3.5.1.2 Event Window

In event studies, it is important to distinguish between estimation period and event period. The majority of event studies use an estimation period before the event. These estimates are used to derive expected or normal returns for each firm during the event window. The event window is the event day (or month) plus and/or minus a certain number of days, weeks or months when the sample firms' returns are observed to see if anything unusual happened that was caused by the specific event. Kothari (2001) and Kothari and Warner (2005) indicate that the length of the estimation period is arbitrary. It has to be long enough to contain a reasonable number of observations to estimate the parameters of the model and short enough to avoid an eventual instability of the parameters. In general, the acquisition literature

uses a length between 100 days and 250 days for daily studies (e.g., Travlos, 1987; Bradley, Desai and Kim, 1988; Holland and Hodgkinson, 1994; and MacKinlay, 1997); and between 24 months and 60 months for monthly studies (e.g., Dodd and Ruback, 1977; Franks and Harris, 1989; Agrawal, Jaffe and Mandelker, 1992; Loughran and Vijh, 1997; and Antoniou, Petmezas and Zhao, 2007).

Loderer and Mauer's study (as cited in Bradley, Desai and Kim, 1988) argues that the market model parameter estimates for acquiring and target firms will be biased if the estimation period is confined to the period just before the acquisition. Further, they argue that the estimate of constant (α) will be biased upward because many acquiring firms initiate acquisition programmes, in general, as other investment programme decisions, following a period of earnings growth. Thus, this estimate of α for acquiring firms will result in a negative bias in market model residuals after the acquisition. To address this issue, this study estimated the market model parameters for the acquiring and target firms twice, using pre-event data (from day -130 to day -31) and post-event data (from day +31 to day +130) as described in figure 3.1 below.

Figure 3.2

Estimation and event window on a timeline for this study

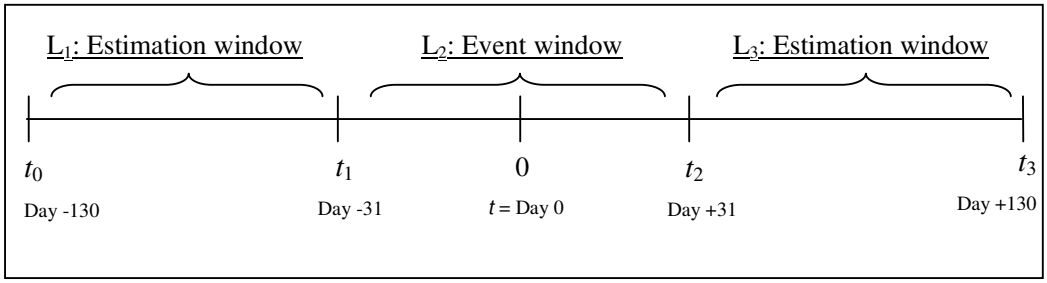


Figure 3.2 shows the timeline and notation to facilitate the measurement and analysis of abnormal returns in this study. The estimation window is the control period preceding (after) the event period. In this study the estimation window (denoted as L_1 and L_3) for all events ends 31 days before (after) the event and extends back to 130 days prior to (after) the event date, to obtain the alpha (α) and beta (β) in the market model. The event day defined as t = day 0, and t_1 = day -30 to t_2 = day +30 represent the event window (denoted as L_2) for this study analysis. Because the event is specific to each firm's stock, the day differs across stocks in calendar time. The negative sign represents before and the positive sign represents after, the announcement date.

In this event window decision, many empirical studies have chosen the length of the event period as ranging from day -30 before up to day +30 after the announcement. Because the announcement effect may take place prior to the actual announcement date, the study of the pre- and post-event may provide information about the acquisition activity prior to the actual announcement. Moreover, the post-event is to capture the price effects of announcements after the stock market closes on the announcement. In this study the wide event window is chosen based on past empirical studies on Bursa Malaysia. Such studies include Isa and Lim (1993) who use an event window of day -20 to day +20 to study share price behaviour around the acquisition announcement. Ariff, Shemsher and Annuar (1997) study the effect of bonus issues on stock price with an event window of day -30 to day +30. Nur-Adiana (1997) studies the impact of right issue announcements on stock price with an event window of day -40 to day +40, while Cheng (2000) uses an event window

of -50 to +30 days to study the effect of accounting earning disclosure on share price.

Ideally, this event window should correspond to the period of the acquisition event's occurrence from day zero to one. If the event is totally unforeseeable, the ideal event window probably coincides with the event day, or with a shorter period. For the acquisition event study, no significant revision in the event's probability occurs at acquisition completion as an acquisition offer's announcement necessarily takes place before that date. This allows investors the opportunity to adjust the probability attached to the acquisition offer, before it actually happens. For this reason, the short-term analysis in this study focuses on the acquisition offer announcements, not on the acquisition offers themselves. Further, Rodrigues (2003) has recommended two reasons why the event window should not be restricted to the announcement day. First, these are complicated operations and it may well take the market some time before it fully evaluates their consequences and incorporates the evaluation into the share prices. Second, there is unavoidably some uncertainty regarding the moment when the market first becomes aware of the possibility of an acquisition offer taking place.

3.5.1.3 Modelling and Testing of Abnormal Returns in the Short-term

1. Estimation of Abnormal Returns

After identifying the event window for this study, a measurement of abnormal returns has to be developed. This section discusses steps 3 to 6 of the event methodology, i.e., to estimate the firm's abnormal returns. The abnormal return is the actual return of the stock *ex-post* minus the normal return of the firm. The normal return is the expected

return without the condition of the acquisition event occurring, thus, without conditioning on the event it is defined as $E[R_{i,t}|X_t]$.

If the event (acquisition announcement) conveys new or relevant information to the market, the mean or the variance of the abnormal returns must reflect the new economic conditions (McKinlay, 1997). Thus, for firm *i* and event period *t*, the conditional abnormal return is defined:

$$AR_{i,t} = R_{i,t} - E[R_{i,t}|X_t] \quad (1)$$

Where,

$AR_{i,t}$ = abnormal share return for firm *i* in period *t*,

$R_{i,t}$ = actual returns for firm *i* in period *t*,

$E[R_{i,t} \mid X_t]$ = expected or predicted returns for firm *i* in period *t*, and

X_t = is the conditioning information set in period *t* and that share returns are generated by return-generating models.

Equation (1) above can be based on simple statistical relationships such as the Ordinary Least Square (OLS) in the market model. Generally, there are two common choices for modelling the normal returns of $E[R_{i,t} \mid X_t]$. The first is the constant mean return model where X_t is a constant, and second is the market model where X_t is the market return. In this study, the market model will be used because this model makes no explicit assumption about how equilibrium share prices are established (Strong, 1992). Further, Brown and Warner (1985) prove that with daily data, the market model and the market-adjusted model have similar power. The market model will be discussed in the following section.

2. Market Model

The market model event-study methodology is a statistical model that relates the return of any given security to the return of the market index. It is the most commonly used model in event studies because its results have smaller variances in abnormal returns, leading to a more powerful statistical test, and also it produces smaller correlations across share abnormal returns giving closer conformity to standard statistical tests (Beaver, 1981). This model assumes that each asset returns maintain a stable linearly relation to the market index ($R_{m,t}$), and market index is a proxy for market portfolio. This study uses Kuala Lumpur Composite Index (KLCI) as the market index, to predict each firm's market model, using daily returns to estimate a regression equation (2) over the estimation period. The underlying securities are assumed to be independently and jointly normally distributed and identically-distributed through time (MacKinlay, 1997). For any firm *i,* the market model is specified as:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \qquad t = \text{-130, -129,…., -31} \qquad (2)$$

$$\text{E}(\varepsilon_{i,t}) = 0 \qquad \text{Var}(\varepsilon_{i,t}) = \sigma_{ei}^2$$

Where,

$R_{i,t}$ = the share return for firm *i* in period *t*,

$R_{m,t}$ = return on market portfolio (KLCI) in period *t*,

α_i = the intercept measure the mean return over the period not explained by the market,

β_i = the slope coefficient, which measures the sensitivity of the firm's share *i* to the market, and

$\varepsilon_{i,t}$ = the regression residual in period *t* (zero-mean disturbance term).

The market model parameters ($\hat{\alpha}_i$ and $\hat{\beta}_i$) are obtained separately by using the OLS estimator during the pre-event period (from day -130 to day -31 relative to the event date) and the post-event period (from day 31 to day 130) called the estimation period. The estimates pre- and post-event parameters are used to derive the abnormal returns during the event period before (from day -30 to day -1) and after (from day 0 to day 30) the event respectively. This study uses the standard econometric software programme Eviews to estimate the firm's returns.

By running the above regression model (equation 2), we obtain the estimated parameters $\hat{\alpha}_i$ and $\hat{\beta}_i$. Next, we calculate the abnormal returns for each firm *i* in period *t* over the interval *t* (during the event window):

$$E(R_{i,t}) = \hat{\alpha}_i + \hat{\beta}_i R_{m,t} \qquad t = -30,\ldots, 0\ldots, 30 \qquad (3)$$

Where,

$E(R_{i,t})$ = the expected rate of return for firm *i* in period *t*;

$R_{m,t}$ = return on market portfolio (KLCI) in period *t*, and

$\hat{\alpha}_i$ and $\hat{\beta}_i$ = are the ordinary least squares estimates of α_i, and β_i over the estimation period.

The market model assumes that in the absence of the event (acquisition announcement), the relationship between the returns of firm *i* and returns of the market index remain unchanged and the expected value of the disturbance term $\varepsilon_{i,t}$ is zero. Using this approach the resulting regression coefficients and the firm's actual daily returns are then used to compute abnormal returns for each firm over

each day of the event window period. The sample abnormal return $(AR_{i,t})$ on the event day t is calculated for the i^{th} firm by subtracting the prediction return of the market model from the observation return as:

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \quad (4)$$

Where,

$AR_{i,t}$ = abnormal share return for firm i in period t,

$R_{i,t}$ = the actual return for firm i in period t, and

$E(R_{i,t})$ = the expected return derives from the market model.

This market model estimation may have a problem for a thinly traded stock market such as the Malaysian stock market. In a thinly traded the problem of non synchronous trading bias arise (Annuar, Ariff and Shamsher, 1994; Cheng, 2000; and Bujang and Annuar, 2007). This problem arises when daily data is used and, consequently, returns series will include zero values that do not reflect price stability but rather the inexistence of transactions. Brown and Warner (1985) show that in such cases, market model OLS estimates are biased and inconsistent. There are several approaches to overcome this bias. The next section discusses the estimation of beta for a thinly traded market.

3. Estimating Beta for a Thinly Traded Stock Market

Scholes and William (1977); Dimson (1979) and Cohen *et al.* (1983) have addressed the potential bias of the OLS estimation due to non synchronous trading. For securities traded with trading delays different than those of the markets, OLS estimates are biased. Similarly, for securities with trading frequencies different than

those of the market index, OLS estimates are also biased. Consequently, the individual $P_{i,t}$ use in the market model regression will in some cases involve observations that are not exactly end of day values. This induces a bias in the betas of individual securities. The result is that the beta of infrequently traded securities is downward biased, while shares trading with more than average frequency have upward biased betas (Henderson, Jr. 1990).

The main statistical problems associated with the empirical application of the market model to thinly traded securities are the presence of heteroscedasticity and autocorrelation (Marsh, 1979; and Bartholdy and Riding, 1994). With such errors, particularly with the use of daily data, OLS regression for the market model can lead to inaccurate results. Many alternative adjustments of beta to correct the thin trading bias have been suggested, such as the Vasicek (1973) Bayesian model, the Blume (1975) model, Scholes and Williams (1977) procedure, the Dimson (1979) method, and the Dimson and Marsh (1983) trade to trade method.

Scholes and Williams (1977) and Dimson (1979) techniques are the most widely recognized in the empirical works. Both methods try to avoid the consequences of non-trading zero returns by regressing returns not only on the contemporaneous market index but also on its lead and lagged values (Rodrigues, 2003). Although the adjustment helps to reduce the bias, Fowler, Rorke and Jog (1980) offers evidence that neither technique adequately controls for non-synchronous trading bias.

A thin trading or non-synchronous market means that whenever a market shock occurs (i.e., acquisition announcement), it will not be incorporated immediately into the price of a thinly traded stock because it is not being traded. Thus, part of the share's actual return in any day may be reflected in the following day's return. Therefore, a market return constructed from the prices of such thinly traded securities will be biased downwards in a rising market and biased upwards in a falling market. To overcome the problems arising from the infrequently or thinly traded securities, we decide to use the Scholes and William technique to estimate the beta in the market model.

Scholes and Williams Method

Scholes and Williams (1977) developed a method to estimate the parameters in the case of infrequently traded securities. It is assumed that price-adjustment delays arise only through non synchronous trading so that an observed transaction price is the true price at the time of the transaction. The Scholes-Williams procedure involves the estimation of each firm's share return to be regressed successively on the lagged, contemporaneous and leading values of the market index returns. This leads to three estimates for the beta parameter: $\beta_{i,\ t-1}$, $\beta_{i,t}$ and $\beta_{i,\ t+1}$ of the market model given by:

$$R_{i,t} = \alpha_i + \beta_{i,sw} R_{m,t} + \varepsilon_{i,t} \tag{5}$$

Where,

$$\hat{\beta}_{i,SW} = \frac{\hat{\beta}_{i,t-1} + \hat{\beta}_{i,t} + \hat{\beta}_{i,t+1}}{1 + 2\hat{\rho}_m} \tag{6}$$

The $\beta_{i,\,t-1}$, $\beta_{i,t}$ and $\beta_{i,\,t+1}$ are obtained in an OLS regression of stock return on one-period lagged market return, on contemporaneous market return, and on one-period lead market return, respectively. The ρ is the first-order, serial-correlation coefficient for the market returns.

4. Aggregation of Abnormal Returns Across Sample Firms and Time

Individual securities are aggregated into portfolios based on time periods (measured either daily or monthly) relative to the event date and not calendar time. The average abnormal return *(AR)* for a particular time period relative to the zero date is calculated as the sum of the abnormal returns at that point in event time divided by the number of securities in the portfolio. The reason for averaging across firms is that the event studies concern the average effect of the announcement rather than examining each company separately. Generally, share returns are noisy, but the noise tends to cancel out when averaged across a large number of firms, therefore, the more firms in the sample the better the ability to isolate the specific event.

To obtain the sample average abnormal returns $(\overline{AR_t})$ for each day of the event window, the abnormal returns $(AR_{i,t})$ will be aggregated across sample firms in the following method as:

$$\overline{AR}_t = \frac{1}{N}\sum_{t=1}^{N} AR_{i,t} \qquad t = -30,\ldots 0,\ldots 30 \qquad (7)$$

Where,

N = number of firms in the sample, and

$AR_{i,t}$ = abnormal return for firm *i* in period *t.*

5. Aggregation of Cumulative Abnormal Returns

The final step involves the aggregation of average abnormal returns over a specific time period measured relative to the event date. This helps to fully capture the effect of the event over a longer time period, or to accommodate uncertainty over the exact date of the event (Strong, 1992). The cumulative average abnormal returns (CAR_{T_1,T_2}) is generated as follows:

$$CAR_{T_1,T_2} = \sum_{t=T_1}^{T_2} \overline{AR_t} \qquad [T_1, T_2] \in [-30 \ldots \text{to} \ldots 30] \qquad (8)$$

Where,

T_1,T_2 = the accumulation period over the event window.

The CAR_{T_1,T_2} reveals the average total effect of an acquisition announcement over the specific period.

6. Parametric Tests for Abnormal Returns

Analysis of the statistical significance of abnormal returns is necessary for the testing of hypotheses related to the market reaction. There has been much research concerning analyzing the power and the degree of specification of test statistics used in short-term event studies. Brown and Warner (1985), and Cowan and Sergeant (1996) study the daily stock returns of the New York Stock Exchange (NYSE) in short-term performance. They use several parametric test statistics in their event-study method. They report that the common parametric *t*-test used in these studies is well specified under the null hypothesis.

Once abnormal returns $\overline{(AR_t)}$ have been estimated for each stock using the market model, then has to test whether abnormal returns are statistically significant or not. This task can be performed for each day or for a time interval during the event window. The null hypothesis to be tested is that the mean on day *t* or mean period [T_1, T_2] return is equal to zero. Patell (1976), Dodd and Warner (1983), Brown and Warner (1985), and many other studies have used a standardized abnormal return *($SAR_{i.t}$),* where each abnormal stock return is normalized by its estimation period standard deviation. Boehmer, Musumeci and Poulsen (1991) recommend the parametric test with standardized abnormal return to align event period abnormal returns' volatility with its estimation period volatility and to prevent stocks with large volatility dominating test statistics.

This study uses the standard *t*-test to assess the statistical significance of the abnormal returns over the event interval. Brown and Warner's (1985) approach is applied in this study to test the hypothesis of the significance of abnormal returns. Each abnormal return ($AR_{i,t}$), is divided by its estimated standard deviation to yield a standardized abnormal return for a particular security on a given day, $SAR_{i,t}$:

$$SAR_{i,t} = \frac{AR_{i,t}}{\hat{S}(AR_{i.t})} \tag{9}$$

Where,

$$\hat{S}(AR_{i,t}) = \sqrt{\left(\frac{1}{100-1}\right)\sum_{t=-130}^{t=-31}\left(AR_{i,t} - AR_i^*\right)^2}$$, and

$$AR_i^* = \frac{1}{100}\sum_{t=-130}^{t=-31} AR_{i,t}$$

The *t*-test for any given day is given by:

$$T_t = \left(\sum_{i=1}^{N_t} SAR_{i.t} \right) * (N_t)^{-1/2} \quad (10)$$

The test statistic is distributed student-*t* under the null hypothesis that the mean of day *t* is zero abnormal return and not different from zero. If the event has a significant impact on the returns of the sample firms, then expect the null to be rejected.

The above test statistics can be used to assess the significance of daily abnormal mean returns only. To assessing the statistical significance of $\overline{CAR}_{T1,T2}$ over multi-day intervals, the test statistics have to be amended as equation 11 below. The $\overline{CAR}_{T1,T2}$ test statistics are adopted from Brown and Warner (1985):

$$T_{[t,T]} = \frac{\sqrt{\sum_{t=1}^{T} T_t^2}}{\sqrt{T}} \quad (11)$$

Where,

T_t = test statistic for average abnormal return for day *t*, and

T = number of days in multi-period interval.

3.5.1.4 Modelling and Testing of Abnormal Returns in the Post-acquisition Period

In order to provide more details of how the corporate acquisition announcement news affects the stock price. This study extends the acquiring firm abnormal returns into long-term post-acquisition periods over a three-year period from the announcement date. The length of the observation period is arbitrary and many

empirical studies of long-term measurement are over a three or five year period. As discussed earlier there is no unanimity in the choice of performance proxies in long-term event studies. However, two approaches seem to be more frequently used, i.e., the cumulative market-adjusted abnormal return (CMAR) and the buy and hold abnormal return (BHAR). In this study, both approaches are used.

1. Calculation of Abnormal Returns

Monthly returns are calculated as follows:

$$R_{i,t} = \frac{(P_{i,t} - P_{i,t-1})}{P_{i,t-1}} \tag{12}$$

Where,

$R_{i,t}$ = the monthly return for firm i for month t,

$P_{i,t}$ = the share price for firm i at the end of month t, and

$P_{i,t\text{-}1}$ = the share price for firm i at the end of month t-1.

The abnormal return in month t is the monthly return for firm i for month t minus the market return for month t.

$$AR_{i,t} = R_{i,t} - R_{m,t} \tag{13}$$

Where $R_{m,t}$ is the return on the market index (i.e. the Kuala Lumpur Composite Index).

2. Buy-and-hold Abnormal Returns (BHAR)

Following the work of Ritter (1991), the BHAR has become one of the most popular estimators in the literature of long-term abnormal performance. Barber and Lyon (1997a), Lyon, Barber and Tsai (1999) and Brav (2000) argue that the BHAR

approach is appropriate because it 'precisely measures investor experience'. The BHAR method is compounding each sub-period return into a buy-and-hold measure period of analysis (i.e., for the one to thirty-six months).

The buy-and-hold abnormal returns for firms *i* ($BHAR_i$) are calculated as in Ritter (1991), Barber and Lyon (1997a) and Goergen, Khurshed and Mudambi (2007):

$$BHAR_{i,\tau} = \prod_{t=1}^{\tau}[1 + R_{i,t}] - \prod_{t=1}^{\tau}[1 + E(R_{i,t})] \quad (14)$$

Where,

$E(R_{i,t})$ = expected return,

$R_{i,t}$ = actual rate of return on firm *i* share in month *t*, and

T = the time period for which the BHAR is calculated.

This study uses two methods to obtain the expected return $E(R_{i,t})$ in equation (14). First, use the market index return (KLCI) and second, use the matched-pair control sample. The control sample is constructed based on the firm characteristics as at the closing of the previous financial year, and the matching is done on the basis of industry type, firm market value and book-to-market ratio.

The matching procedure is based on information from Barber and Lyon (1997a) and Loughran and Vijh (1997), which adjusts the size and book-to-market effects. The adjusting of firm size and book-to-market effects is important as the acquisition sample is generally not distributed equally across the size and the book-to-market spectrum. To match the firms, first, identify all firms within the same industry as the sample firm followed by size and book-to-market. The size benchmark firm constructs as financial year end *t*-1 for all firms on the basis of market value of

equity (price per share multiply by number of shares issued). The book-to-market benchmark firm constructs as the firm's book-to-market ratio (net tangible assets divided by number of shares issued) reported in firm's balance sheet year end *t*-1. Finally, from this set of firms, then choose the firms with size and book-to-market ratio between 75% and 125% of the sample firm. If the size or book-to-market ratio is not available, then drop the acquiring firm from the sample.

Equally weighted portfolio of stocks returns are calculated as follows:

$$\overline{BHAR}_{t,T} = \frac{1}{N}\sum_{t=1}^{N} BHAR_{i,T} \tag{15}$$

Where,

$\overline{BHAR}_{t,T}$ = the sample mean buy-and-hold abnormal returns,

N = the number of firm i in the portfolio; and

T = the time period for which the buy-and-hold is calculated.

To test the null hypothesis that BHAR is equal to zero for a sample of *N* firms, the following conventional *t*-statistic is calculated:

$$t - statistic = \frac{\overline{BHAR_{t,T}}}{(\sigma(BHAR_{i,T})/\sqrt{N})} \tag{16}$$

The $\overline{BHAR_{t,T}}$ refers to the sample average and $\sigma(BHAT_{i,T})$ is the cross-sectional sample standard deviation of abnormal returns for the sample of *N* firms. The *t*-statistic tests the hypothesis that the mean but-and-hold abnormal return are equal to zero for a sample of *N* firms over *T* period.

3. Cumulative Market-adjusted Abnormal Returns (CMAR)

Early empirical research on long-term post-acquisition abnormal performance is measured in cumulative abnormal returns (e.g., Dodd and Ruback 1977; Malatesta 1983; and Franks, Harris and Mayer 1988). For comparison reasons, this study also calculates the traditional method of CAR based on the market adjusted model.

The cumulative market-adjusted abnormal returns (CMAR) are calculated as in Espenlaub *et al.* (2000):

$$CMAR = \sum_{t=1}^{t=36} \frac{1}{N} \sum_{i}^{N} AR_{i,t} \tag{17}$$

Where $AR_{i,t} = R_{i,t} - R_{m,t}$ (based on equation 13) is the abnormal return for firm i in month t and N is the number of firms in the sample. To test the null hypothesis that $\overline{CMAR}_{T1,T2}$ is equal to zero for a sample of N firms, the parametric test statistic is calculated as follows:

$$t_{MAAR} = \frac{\overline{CMAR_{t,T}}}{(\sigma(CMAR_{i,t})/\sqrt{N})} \tag{18}$$

The t-test reports the ratio of the estimated coefficient to its estimated standard deviation. Where $\overline{CMAR_{t,T}}$ is the sample mean, and $\sigma(\overline{CMAR_{i,t}})$ is the cross-sectional sample standard deviation of abnormal returns for the sample N firms.

3.6 SUMMARY

The first part of this chapter discusses the development of hypotheses, which are neoclassical profit maximization, target status, methods of payment and acquiring firms long-term post-acquisition performance. Table 3.2 presents the summary of hypotheses testing relating to short-term and long-term post-acquisition performance.

The second part of this chapter discusses the research method applied in this study. In order to meet the overall research objectives, this study adopts a quantitative research based on the standard event study methodology approach. Observations of a total of 169 firms listed on Bursa Malaysia from year 2000 to 2004 have been selected in the study to examine the impact of the acquisition on acquiring and target firm, in both the short- and long-term performance. The acquiring and target firm share performance is used to represent firm returns in this study, with respect to the influence factors, neoclassical profit maximization, target status, method of payment; and finally, post-acquisition performance.

To test the hypotheses, this study used the standard event study methodology to calculate abnormal returns to acquiring and target shareholders. In the short-term analysis, to account for thin trading on Bursa Malaysia, the Scholes and Williams (1977) lead-lag adjustment technique is used in the estimation of the market model parameters. The CMAR and BHAR approaches are used to measure acquiring firm returns in the long-term post-acquisition performance. The next chapter presents and discusses the findings of the study.

Table 3.2

Summary of alternative hypotheses

Hypotheses	Description of Alternative Hypotheses Development
Panel A: Short-term Announcement Period Returns	
H1: Value Creation Hypothesis	
$H_a1.1$	There is a positive abnormal return to acquiring firms around the acquisition announcement period.
$H_a1.2$	There is a positive abnormal return to target firms around the acquisition announcement period.
H2: Information Hypothesis	
$H_a2.1$	There is a positive relation between acquiring firm returns and the outcome of the acquisition.
$H_a2.2$	There is a positive a relation between target firm returns and the outcome of the acquisition.
H3: Synergy Hypothesis	
$H_a3.1$	There is a positive relation between the sustainability of the abnormal returns and the outcome of the acquisition for the acquiring firm.
$H_a3.2$	There is a positive relation between the sustainability of the abnormal returns and the outcome of the acquisition for the target firm.
$H_a3.3$	There is a positive relation between the acquiring firm abnormal return and the relative size of target to acquiring firm.
$H_a3.4$	The returns of acquirers of non-conglomerate target is greater than conglomerate targets, i.e., $\mu_1 > \mu_2$.
H4: Target Status Hypothesis	
$H_a4.1$	There is a negative abnormal return for acquirers of public listed target.
$H_a4.2$	There is a positive abnormal return for acquirers of unlisted private target.
$H_a4.3$	The return of acquirers of unlisted private target is greater than acquirers of listed target, i.e., $\mu_1 > \mu_2$.
H5: Target Status and Risk hypothesis	
H_a5	The change of risks to acquirers of unlisted private targets is greater increase than the change of risk when acquiring public targets.
H6: Acquiring Firm Returns and Information-signalling Hypothesis	
H_a6	The return to acquiring firm in cash settlement is greater than in share settlement, i.e., $\mu_1 > \mu_2$.
H7: Target Firm Returns and Tax Hypothesis	
H_a7	There is a difference in the target's abnormal return between cash acquisition and share acquisition, i.e., $\mu_1 \neq \mu_2$.
H8: Acquiring Firm Returns by Method of Payment and Target Status Hypothesis	
$H_a8.1$	There is a positive abnormal return for acquirers of public targets in cash offers.
$H_a8.2$	There is a negative abnormal return for acquirers of public targets in share offers.
$H_a8.3$	The abnormal return of acquirers of public targets in cash offer is greater than share offer, i.e., $\mu_1 > \mu_2$.
$H_a8.4$	There is a positive abnormal return for the acquirers of private targets in cash offers.
$H_a8.5$	There is a positive abnormal return for acquirers of private targets in share offers.
$H_a8.6$	The abnormal returns of acquirers of private targets in share offers is greater than cash offer, i.e., $\mu_1 > \mu_2$.

continued on next page

Table 3.2 (continued)

Summary of alternative hypotheses

Hypotheses	Description of Alternative Hypotheses Development
Panel B: Acquiring Firms Long-term Post-acquisition Performance	
H9: Long-term Value Creation Hypothesis	
H_a9	There is a significant abnormal return for acquiring firm in the long-run.
H10: Model Sensitivity Hypothesis:	
H_a10	There is a significant difference in cumulative market adjusted abnormal return (CMAR) and buy-and-hold abnormal returns (BHAR) to acquirers in the long-term post-acquisition period.
H11: Post-acquisitions Performance by Target Status Hypothesis	
$H_a11.1$	There is a significant abnormal return for acquirers of public listed target.
$H_a11.2$	There is a significant abnormal return for acquirers of unlisted private target.
H12: Post-acquisition Performance by Method of Payment and Target Status Hypothesis	
$H_a12.1$	There is an abnormal return for acquirers of public targets in cash offers in the long-run.
$H_a12.2$	There is an abnormal return for acquirers of public targets in share in the long-run.
$H_a12.3$	There is a significant difference in the acquirers of public target's abnormal return between cash offer and share offer in the long-run, i.e., $\mu_1 \neq \mu_2$.
$H_a12.4$	There is an abnormal return for the acquirers of private targets in cash offers in the long-run.
$H_a12.5$	There is an abnormal return for acquirers of private targets in share in the long-run.
$H_a12.6$	There is a significant difference in the acquirers of private target's abnormal return between cash offer and share offer in the long-run, i.e., $\mu_1 \neq \mu_2$.
H13: Adjustment of Overlapping Acquisitions Hypothesis	
H_a13	There is a significant difference of CMAR (and BHAR) between acquirers in single acquisitions and acquirers in multiple acquisitions.
H14: Acquiring Firm Size Hypothesis	
H_a14	There is a significant relationship between post-acquisition performance and acquiring firm size.
H15: Growth and Value Firm Hypothesis	
H_a15	There is a significant relationship between post-acquisition performance and acquiring firm book-to-market ratio.
H16: Matching Portfolio Hypothesis	
H_a16	There is a significant difference between the acquiring firm returns and the matched firm returns.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

The objective of this study is to examine the Malaysian acquiring firm performance for the period 2000 to 2004, through the analysis of target status and method of payment, both in the short- and long-term. This chapter reports and discusses the findings of this study. The chapter is organised as follows. Section 4.2 presents the descriptive statistics of the acquiring and target firms. Section 4.3 reports the estimation of OLS beta and the Scholes-Williams' adjustment for thin trading. Section 4.4 reports the results of the acquiring and target firms returns around the announcement period. Section 4.5 reports the long-term post-acquisition performance of acquiring firms. The chapter ends with section 4.6 summary.

4.2 DESCRIPTIVE STATISTICS

Table 4.1 present summary statistics of the sample for the five-year period covered by this study, from year 2000 to 2004. Panel A reports the numbers of acquisition transactions its distribution by method of payment and target status. Panel B describes the number of acquiring and target firms by industry. In arriving at the final sample as shown in the table, some observations have to be dropped due to not fulfilling the non-normality test. According to Fama (1976, p.21): '*the daily stock return for an individual security exhibits substantial departures from normality that are not observed with monthly data. The evidence generally suggests that distributions of daily returns are fat-tailed relative to a normal distribution'*.

However, Brown and Warner (1985) highlights that the non-normality of daily returns has no obvious impact on event study methodologies. This is because the mean excess return in a cross-section of securities converges to normality as the number of stocks increases. In this study we take the necessary precaution in screening for normality to arrive at the final sample.

Gujarati (1999) discusses several methods to test for normality, i.e., using graphical methods (histogram of residuals and normal probability plot) and Jarque-Bera test. In this study, the histogram of residuals is used to test the normality for each individual firm. The firm is excluded if its residual is not normally distributed. Further, firms are excluded if the information on firm shares price, acquisition size and acquisition is not available.

Panel A of Table 4.1 shows the final number of acquiring and target firms by target status and method of payment used in this study. The initial sample consists of 169 firms, but after screening for normality the final sample is 139 firms. The acquiring firms consist of 32 (23%) in public acquisitions, 107 (77%) in private acquisitions, and (public) target firms are 32. Panel A also shows the method of payment for acquiring firms in which cash offers are 99 (71%), share offers are 26 (19%); and mixed offers are 14 (10%), while for target firms, cash offers are 20 (62.5%), share offers are 11 (34.4%); and mixed offers are 1 (0.03%). The list of firms included in this study is shown in Appendix C.

Panel B of Table 4.1 shows the industry breakdown of sample firms that engaged in acquisition activity. The trading and services and industrial products industries are the most active in acquisition activity during the study period, with each representing 30.93%. This is followed by properties (13.67%) and construction (9.35%). While for listed target firms, the most predominant are the industrial products (46.87%), trading and service (21.88%), and properties (15.62%).

Table 4.1

Number of acquiring and target firms by target status and method of payment, and by industry, 2000-2004

Panel A: Characteristic of Sample Firms

	Acquiring Firms			**Target Firms**
Methods of Payment:	Public acquisitions	Private acquisitions	Total	Total
- Cash Offers	20	79	99	20
- Share Offers	11	15	26	11
- Mixed Offers (Cash or Share)	1	13	14	1
Total Number of Listed Firms	32	107	139	32

Panel B: Firms by Industry

Sector	**Acquiring Firms (N = 139)**	**Target Firms (N = 32)**
Trading and Services	30.93%	21.88%
Industrial Products	30.93%	46.87%
Properties	13.67%	15.62%
Construction	9.35%	9.38%
Plantation	6.48%	-
Consumer Products	5.04%	6.25%
Technology	2.16%	-
Infrastructure	1.44%	-
Total	100.00%	100.00%

Source: Own calculation based on KLSE Investor Digest and Bursa Malaysia website information.

Notes: Cash (share) offers are when 100% of the consideration is cash (share); and the mixed offers are combination of cash and share payment. Public acquisitions refer to target is a listed (public) firm and private acquisitions refer to target is an unlisted (private) firm. The industry classification is based on the Bursa Malaysia information to identify the type of industries.

4.3 ESTIMATION OF BETA IN THINLY TRADED MARKET

Bartholdy and Riding (1994) state that the main statistical problems associated with the market model are the presence of heteroscedasticity and autocorrelation in thinly traded securities. To account for thin trading on Bursa Malaysia, the Scholes and Williams' adjustment technique is used in the estimation of the market model parameters.

Table 4.2 presents the acquiring firm's beta in the pre- and post-announcement period. The full list of acquiring firms' beta is included in Appendix D. The *t*-statistic shows that there is no difference between the ordinary least squares (OLS) beta and the Scholes-Williams' (SW) beta in the pre- and post-announcement period. In the pre-announcement period, the mean for the OLS and SW beta are 0.8047 and 0.7807, respectively, and the test of difference between means yields a *t*-statistic of 1.4537 (or *p*-value = 0.1483), which is not significant at 10% level. In the post-announcement period, the mean for the OLS and SW beta are 0.9039 and 0.9176 respectively, and the *t*-statistic for the difference is -0.6633 (or *p*-value = 0.5083), also not significant. Nevertheless, we choose to proceed our analysis using the Scholes-Williams adjusted parameters, with one lead and one lag independent variable. We also test the differences between pre- and post-announcement beta of the OLS and SW, the *t*-statistic value is 2.4038 and -3.0488, respectively, both are significant at the 5% level.

The market model builds on the argument that its results have smaller variances in abnormal returns, leading to a more powerful statistical test, and produces smaller correlations across abnormal returns giving closer conformity to standard statistical tests (Beaver, 1981). The market model assumes that the relationship between each firm's returns and market returns (KLCI) is linear. The pre- and post-event parameters are separately estimated. The pre-event alpha and beta are estimated over a period of 100 days, from day -130 to day -31, while the post-event parameters are estimated over the period from day +31 to day +130. The estimated pre- and post-event parameters are used to derive the abnormal returns during the event period before (from -30 days to day -1) and after (from day 0 to day 30) the event, respectively.

Table 4.2

OLS and Scholes-Williams beta estimates for the acquiring firms

Descriptive Statistics	**Pre-announcement Period**	**Post-announcement Period**
OLS Beta – mean	0.8047 (0.8990)	0.9039 (1.0133)
SW Beta – mean	0.7807 (0.8383)	0.9176 (1.0379)
Pearson Correlation	0.9616	0.9353
t-statistic	1.4537	-0.6633
p-value	0.1483	0.5083
Number of observation (N)	139	139

Notes: SW refers to the Scholes-Williams (1977) estimation of beta with one lead and one lag adjustment. Separate beta is estimated pre- and post-announcement from day -130 to day -31 and from day 31 to day 130, respectively. The medians are in parentheses. The *t*-statistic value of difference between pre- and post announcement beta for the OLS beta is 2.4038 and SW beta is -3.0488, both are significant at the 5% level.

4.4 SHORT-TERM ANNOUNCEMENT PERIOD RETURNS

4.4.1 Value Creation in Acquisition

For individual firms, the economic role of mergers and acquisitions is to assist in achieving or maintaining their competitive advantages by anticipating and adjusting to change (Weston, Mitchell and Mulherin, 2004). The decision to acquire another firm should be primarily motivated by the desire to increase the firm value. This section discusses both the acquiring and target firms' daily abnormal return and cumulative abnormal return around the date of the announcement of an acquisition.

Table 4.3(a) shows average abnormal returns (AR) and cumulative abnormal returns (CAR) for acquiring and target firms for the period -30 to +30 days around the acquisition announcement. The first column denotes the days relative to the announcement day (day 0) and the succeeding columns show the average abnormal returns (AR), *t*-statistics of the AR, and the cumulative abnormal returns (CAR) for acquiring firms, while the last three columns are similar information for target firms. The CARs are also graphed in Figure 4.1.

Share Price Reaction to Announcement: Acquiring Firms

The first part of Table 4.3(a) shows that acquiring firms returns are only significant for days 0 and 1. On the announcement day (day 0), the abnormal return is 1.0335% (*t*-statistic = 5.4707), while for day 1, the abnormal return is 0.4804% (*t*-statistic = 1.9619), both are significant at the 5% level. The price increases are significantly different from zero. Other days during the pre-announcement period do not show significant abnormal returns.

For the entire observation period, the announcement day is the largest single-day abnormal return. In contrast to the pre-announcement period, several post-acquisition days continue to earn statistically significant abnormal returns. They are day 5 (AR= -0.3219% and *t*-statistic = -1.6842), day 6 (AR= -0.4900% and *t*-statistic = -1.9015), and day 11 (AR= 0.3076% and *t*-statistic = 1.8472). Two days after the acquisition announcement day, acquirer returns turn into negative returns, and this negative return is significant on day 5 and day 6, at the 10% level.

Share Price Reaction to Announcement: Target Firms

The second part of Table 4.3(a) shows that target firms earn abnormal returns for the announcement days, i.e., day 0 and day 1. Day 0 observes the single largest daily return in the event window of 4.1219% (*t*-statistic = 6.1194), which is significant at the 1% level. The abnormal return on day 1 is 2.2714% (*t*-statistic = 7.9316) and is also significant at the 1% level. A series of significant abnormal returns is also observed beginning from day -3 leading to the announcement day and going into day 1. The price reaction is assessed from day -23 (AR = 0. 5248% and *t*-statistic = 1.9582), day -18 (AR = -0.4357% and *t*-statistic = -1.8427), day -14 (AR = 0.6646% and *t*-statistic = 1.6824), day -3 (AR = 0.6420% and *t*-statistic = 3.9834), and day -1 (AR = 0.5791% and *t*-statistic = 2.0237) returns. The results continue to show a positive return at the post-acquisition period, only day 1, day 9, day 12 to 14 and day 30 have a very small significant positive abnormal return. Overall, the significant impact of acquisition announcement on the share price of target firms is apparent.

Table 4.3(a)

Average abnormal return (AR) and the corresponding *t*-statistic, cumulative abnormal return (CAR) for the entire sample around the announcement day, 2000-2004

	Acquiring Firms (N = 139)			Target Firms (N = 32)		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	0.1529	0.8460	0.1529	0.1751	1.0140	0.1751
-25	-0.0400	-0.1133	0.0974	0.3447	0.1194	1.9391
-20	0.1854	0.5083	0.6006	0.2315	0.9271	1.8567
-19	0.1133	0.2753	0.7139	0.0446	0.1195	1.9013
-18	0.0828	0.8417	0.7967	-0.4357*	-1.8427	1.4656
17	0.2214	0.9197	1.0181	-0.2791	-0.6038	1.1865
-16	-0.1338	-0.7960	0.8842	-0.0417	-0.2061	1.1448
-15	-0.0402	-0.3834	0.8440	0.0951	0.3321	1.2399
-14	-0.1840	-0.5452	0.6600	0.6646*	1.6824	1.9045
-13	-0.0560	-0.2388	0.6040	0.4311	0.9921	2.3356
-12	-0.0811	-0.1211	0.5229	0.3557	0.4687	2.6913
-11	0.1293	0.8017	0.6522	0.2457	0.6469	2.9370
-10	-0.2042	-1.1844	0.4480	0.3665	0.5422	3.3035
-9	-0.0316	-0.0237	0.4164	0.0212	0.8176	3.3247
-8	0.1636	0.5413	0.5800	0.1845	0.1449	3.5092
-7	0.1670	0.9300	0.7470	0.4855	0.2677	3.9947
-6	0.2376	1.3815	0.9846	0.1238	0.0664	4.1185
-5	-0.1074	-0.3464	0.8772	-0.1328	-0.1561	3.9857
-4	0.0603	0.6059	0.9375	0.6090	0.3685	4.5947
-3	0.0597	0.6188	0.9972	0.6420***	3.9834	5.2367
-2	0.0372	0.0685	1.0344	0.6385	0.9414	5.8752
-1	-0.0317	-0.2921	1.0027	0.5791***	2.0237	6.4543
0	**1.0335*** **	**5.4707**	**2.0362**	**4.1219*** **	**6.1194**	**10.5762**
1	0.4804**	1.9619	2.5166	2.2714***	7.9316	12.8476
2	0.0819	0.1227	2.5985	-0.3519	-0.7783	12.4957
3	-0.0966	-0.4636	2.5019	-0.6085	-0.6517	11.8872
4	-0.3482	-1.0132	2.1537	-0.7211	-1.1280	11.1661
5	-0.3219*	-1.6842	1.8318	-0.3873	-0.6155	10.7788
6	-0.4900*	-1.9015	1.3418	0.3681	0.2349	11.1469
7	-0.3343	-1.2751	1.0075	0.0569	1.2455	11.2038
8	-0.0359	-0.1998	0.9716	-0.1586	-0.1820	11.0452
9	0.2111	1.5098	1.1827	0.6752***	2.2398	11.7204
10	0.2025	1.0571	1.3852	-0.4671	-0.6504	11.2533
11	0.3076*	1.8472	1.6928	0.1380	1.5928	11.3913
12	0.0461	0.1443	1.7389	0.5692***	2.2281	11.9605
13	0.0164	0.1492	1.7553	0.8486***	2.7248	12.8091
14	0.0801	0.1470	1.8354	0.8248*	1.7665	13.6339
15	-0.0910	-0.3276	1.7444	-0.2737	-0.6517	13.3602
16	0.1323	0.7840	1.8767	-0.3119	-0.4400	13.0483
17	0.1957	1.0062	2.0724	0.2694	0.5552	13.3177
18	-0.0905	-0.4518	1.9819	-0.0950	-0.3190	13.2227
19	0.0033	0.5363	1.9852	-0.2167	-0.2608	13.0060
20	0.0086	0.2346	1.9938	0.2486	0.8831	13.2546
25	0.0337	1.1030	2.0900	-0.1012	-0.0423	12.6145
30	-0.0810	-0.4674	2.6429	0.7614**	2.0596	14.2057

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively). These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Cumulative Abnormal Returns for Acquiring Firms and Target Firms

Figure 4.1 presents the plots of cumulative abnormal return (CAR) for both the acquiring and target firms. The figure shows very clearly that both the acquiring and target firms gain from acquisition activities in the Malaysian market. However, the gains for target firms are far greater than gains for the acquiring firms. These observations seem to be consistent with those documented in developed capital markets. During the days prior to the announcement day, acquiring firms do not seem to show any clear trend of abnormal returns but largely remain above zero level. However, it begins to rise on day 0 and reaches a peak to be about 3% at day 2 and then moves downward until day 7 and stabilizes thereafter.

As for target firms, the CAR generally takes an uncertain trend prior to the announcement day, but shows a clear uptrend beginning from day -4 to reach the peak to approximate 13% on day 2, and after a slight downward movement it begins to stabilize from day 5 to day 11. However, there is an apparent delayed reaction after day 11, with the CAR starting to stabilize after day 15 until the end of the study window.

The significant returns observed on the announcement days (days 0 and 1) for both acquiring and target firms indicate that the Malaysian market agrees that acquisition creates value. The fact that these are the days with the largest abnormal returns also has implications for the efficient market hypothesis in the sense that most of the values are impounded into the share prices upon the announcement of the event. The stability of the CAR for the pre- and post-announcement period for both acquiring and target firms is also consistent with the efficient market hypothesis. The

consecutive increase in the abnormal returns a few days prior to the announcement day for target firms may be due to information leakage. It is also shown that the abnormal returns drop on few consecutive days immediately after the announcement. This indicates either a correction of an over-reaction, or profit taking by informed investors.

Table 4.3(b) presents further analysis of CARs and the corresponding *t*-statistic for various sub-windows. It can be observed that for all the various sub-windows, target firms' CARs are higher than the acquiring firms' CARs. For the 3-day announcement period, day -1 to day 1, the targets' CAR of 6.9724% is greater than the acquiring firms' CAR of 1.4822% by a margin of 5.4902%. The CAR value for acquiring and target firms is significantly different from zero for the sub-period of day -1 to day 1. For the entire length of the event window (day -30 to day 30) the CAR for acquiring firms is 2.6429% compared to 14.2057% for target firms. This represents a premium of 11.5628% abnormal return for target firms. The last column of the *t*-statistic is to test the difference between acquiring firms CAR and target firms CAR. The evidence seems to suggest that the CARs are significantly different between acquiring and target firms.

The lopsided division of the gains with a major portion going to the target firms may be due to the high prices paid by the acquiring firms to the shareholders of the target firms. One possible explanation for this is as proposed by Asquith (1983), and Bradley, and Desai and Kim (1983) are that there is keen competition in the acquisition market in the US. However, this explanation may not be applicable in

Malaysia given the lack of multiple bidders in the local acquisition activities.[12] Another possible explanation is that the information effect of the announcement results in an upward movement of the target's share prices. This may be due to the market's discovery of underutilized resources or unique assets owned by targets.

The findings that target firms obtain large CAR are consistent with the evidence of previous studies in developed and developing markets.[13] However, past evidence on the acquiring firms are mixed with the majority of the studies showing non-positive CAR, while some studies show small positive CAR. In their widely cited paper, Jensen and Ruback (1983) concludes that "acquiring firms do not lose". The result of positive CAR for the acquiring firms is consistent with those found by Asquith (1983), Bradley, Desai and Kim (1983), Isa and Lim (1993), Moelller, Stegemoller and Stulz (2004), and Draper and Pudyal (2006).

The result of positive abnormal returns to the acquiring and target firms reject the Hypotheses of $H_0$1.1 and $H_0$1.2 that there is no positive abnormal return to acquiring and target firms around the acquisition announcement period. The evidence supports the value-creation hypothesis in the acquisition activities in the Malaysian market. On the announcement day, the significant abnormal returns of the acquiring and target firms are 1.0335% and 4.1219%, respectively. The possible explanations for the higher abnormal returns on target firms are: since the acquirers want to acquire the target firms, they are willing to pay a higher premium to successfully effect the

[12] A check on Malaysia acquisition activities our sample reveal that most of them are non-multiple bidders.
[13] Cheung and Shum's (1983) study on takeover in Hong Kong market, Campa and Hernando (2004), and Georgen and Renneboog's (2004) study on European mergers and acquisitions find that target firms gain in the acquisitions.

transaction. It is also possible that acquirers are confident that the fusions will create synergies; hence, the management of the acquiring firm decides to acquire the target firm.

The next section discusses the test of the competing implications of the information and synergy hypotheses by examining the returns realized by the acquiring and target firms that have made successful and unsuccessful acquisitions, both around the announcement and the outcome announcement.

Table 4.3(b)

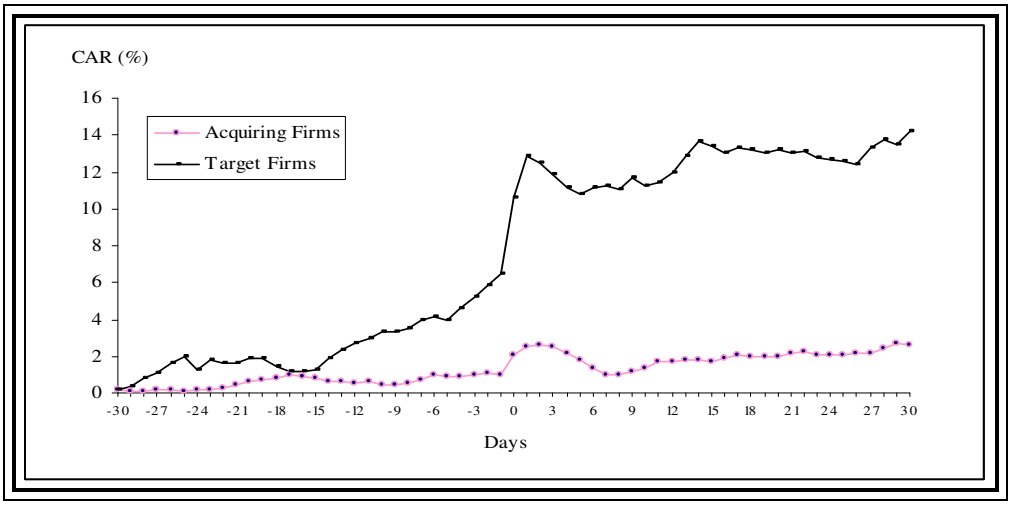
Difference between firms' abnormal return: acquiring firms versus target firms, 2000-2004

Holding Returns CAR Range	**Acquiring Firms (N = 139)**		**Target Firms (N = 32)**		***t*-statistic for difference**
	CAR (%)	***t*-statistic**	**CAR (%)**	***t*-statistic**	
Day -30 to Day 2	1.0344	0.6420	5.8752	1.0946	1.8670*
Day -1 to Day 1	1.4822**	3.3597	6.9724***	6.9006	2.8584***
Day 2 to Day 30	0.1263	0.8886	1.3581*	1.8978	0.3919
Day -5 to Day 5	0.8472*	1.8788	6.6604***	3.3581	2.1445**
Day -10 to Day 10	0.0733	1.5733	8.3164**	2.5089	2.2571**
Day -20 to Day 20	1.5784	1.2239	11.6295*	1.9818	1.7667*
Day -30 to Day 30	2.6429	1.0614	14.2057*	1.7034	1.8896*

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.1

Cumulative abnormal return (CAR) for acquiring and target firms for the entire sample around the announcement day, 2000-2004



Notes: Percentage cumulative returns for 139 acquiring firms and 32 target firms for 30 days before and after the announcement of acquisitions

4.4.2 Information or Synergy

This section concerns whether the price behaviour is different for the acquiring firms that subsequently failed in their acquisition bids compared to those that succeeded. The analysis will also be able to answer the question whether the market is able to distinguish between successful and unsuccessful acquisition at the time of the initial announcement. If the market is able to correctly anticipate the success and failure of an acquisition at the time of its announcement, share price behaviour between the two groups will be different. In subsequent analysis, the total acquiring firm sample is divided into two sub-samples: successful and unsuccessful samples. Out of the 139 samples, 124 (89%) were successful while 15 (11%) were unsuccessful.

Share Price Reaction to Announcement: Successful and Unsuccessful Acquirers

Table 4.4(a) presents evidence on the price behaviour around acquisition announcements for both the successful and unsuccessful acquiring firms. The unsuccessful acquiring firms refer to those samples that announced explicitly that acquisition attempts were aborted or withdrawn. The first part of Table 4.4(a) shows that successful acquiring firms earn significant positive abnormal returns on two consecutive days (day 0 and day 1). On the announcement day (day 0), the abnormal returns is 1.1532% (*t*-statistic = 5.7709 and significant at the 1% level), while for day 1, the abnormal return is 0.4996% (*t*-statistic = 1.7860 and significant at the 10% level). The second part of Table 4.4(a) shows that the acquiring firms for unsuccessful acquisitions have insignificant returns for both days.

Figure 4.2 contrasts the behaviour of CAR for successful and unsuccessful acquiring firms. The figure shows that successful acquirers earn greater positive abnormal returns than those of the unsuccessful acquirers in the pre- and post-announcement period. While, unsuccessful acquirers show negative returns fluctuated around zero. The wide divergence of the CAR between successful and unsuccessful acquirers in the pre-and post-announcement period might indicate that the market is able to correctly anticipate the successful and unsuccessful acquisitions. The departure of the unsuccessful CAR takes place about 3 weeks prior to the announcement. On the whole, the CAR pattern for successful acquiring firms is rather similar to the pattern shown by the total samples in the preceding section (see Figure 4.1). This is not entirely surprising because of the predominance of the successful acquisitions in the total sample.

Table 4.4(b) shows CAR of successful and unsuccessful acquiring firms for various sub-windows. It is observed that the CAR value for successful acquiring is significantly different from zero for the sub-windows of day -1 to day 1, day -5 to day 5, and day -10 to day 10, while unsuccessful acquiring firms have insignificant CAR. For the 3-day announcement period, day -1 to 1, the successful acquiring firm's CAR is 1.5544%, and significantly different from zero. While the unsuccessful acquiring firm's CAR is 0.9648% and insignificant. However, the last column of the *t*-statistic for difference of CARs does not show significance for the sub-periods, except for the sub-period of day -30 to day 30 and post-announcement period of day 0 to day 30.

In summary, successful acquiring firms appear to have small and significant positive return at the announcement day. While for unsuccessful acquiring firms the market shows no reaction on the announcement day, which appears small but insignificant positive returns. Our results are inconsistent with Dodd (1980) finds that both successful and unsuccessful acquiring firms have negative returns at the two days announcement.

Table 4.4(a)

Average abnormal return (AR) and the corresponding *t*-statistic, cumulative abnormal return (CAR) of acquiring firms around the announcement day: successful acquiring firms versus unsuccessful acquiring firms, 2000-2004

	Successful Acquirers (N = 124)			**Unsuccessful Acquirers (N = 15)**		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	0.1491	0.8021	0.1491	0.1802	0.2691	0.1802
-25	-0.0075	-0.0806	0.1271	-0.2729	-0.5766	-0.1158
-20	0.1251	0.2378	0.5268	0.6183	0.8635	1.1309
-19	0.1738	0.4716	0.7006	-0.3215	-0.5181	0.8094
-18	0.0933	1.0051	0.7939	0.0072	0.3273	0.8166
-17	0.2913	1.0813	1.0852	-0.2806	-0.3090	0.5360
-16	-0.0825	-0.8231	1.0027	-0.5017	-0.0566	0.0343
-15	0.0281	0.1220	1.0308	-0.5302	-0.8163	-0.4959
-14	-0.0590	-0.0977	0.9718	-1.0817**	-1.9789	-1.5776
-13	-0.0048	-0.0358	0.9670	-0.4241	-0.6242	-2.0017
-12	-0.0740	-0.0440	0.8930	-0.1311	-0.4951	-2.1328
-11	0.2063	1.0666	1.0993	-0.4233	-0.6261	-2.5561
-10	-0.1332	-1.0058	0.9661	-0.4327	-0.7136	-2.9888
-9	-0.0152	-0.0754	0.9509	0.0308	0.2890	-2.9580
-8	0.0826	0.2812	1.0335	0.7449	0.8394	-2.2131
-7	0.1944	1.0376	1.2279	-0.0296	-0.1521	-2.2427
-6	0.2302	1.2349	1.4581	0.2905	0.6547	-1.9522
-5	-0.1095	-0.5892	1.3486	-0.0922	-0.6397	-2.0444
-4	0.1013	0.5496	1.4499	-0.2336	-0.2643	-2.2780
-3	0.0014	0.4593	1.4513	0.4778	0.5632	-1.8002
-2	-0.0247	-0.1955	1.4266	0.4811	0.7706	-1.3191
-1	-0.0984	-0.0525	1.3282	0.4474	0.7384	-0.8717
0	**1.1532*** **	**5.7709**	**2.4814**	**0.1747**	**0.7885**	**-0.6970**
1	0.4996*	1.7860	2.9810	0.3427	0.8067	-0.3543
2	0.0679	0.3103	3.0489	0.1818	0.8230	-0.1725
3	-0.0635	-0.1120	2.9854	-0.3339	-1.0892	-0.5064
4	-0.2605	-0.8764	2.7249	-0.9780*	-1.6543	-1.4844
5	-0.3171*	-1.9307	2.4078	-0.3557	-0.4382	-1.8401
6	-0.4858*	-1.9410	1.9220	-0.5207	-0.2077	-2.3608
7	-0.3822	-1.4809	1.5398	0.0095	0.3764	-2.3513
8	-0.1037	-0.2707	1.4361	0.4509	0.1703	-1.9004
9	0.0601	1.0869	1.4962	0.8783	1.4712	-1.0221
10	0.0902	0.9442	1.5864	0.7723	0.5034	-0.2498
11	0.3806**	2.1698	1.9670	-0.2159	-0.6154	-0.4657
12	-0.0882	-0.3311	1.8788	0.4964	1.3912	0.0307
13	0.0875	0.3845	1.9663	-0.4947	-0.6516	-0.4640
14	0.0503	0.1275	2.0166	0.2943	0.0811	-0.1697
15	-0.2230	-0.2591	1.7936	0.8563*	1.7424	0.6866
16	0.1817	0.8792	1.9753	-0.2810	-0.1414	0.4056
17	0.1996	0.9833	2.1749	0.1682	0.2357	0.5738
18	-0.1541	-0.5631	2.0208	0.3656	0.2439	0.9394
19	0.0933	0.2430	2.1141	-0.6423	-0.9338	0.2971
20	-0.0122	-0.3480	2.1019	0.1574	0.2866	0.4545
25	0.1607	1.4650	2.3748	-0.8776*	-1.8546	-1.4324
30	0.0286	0.2650	3.1770	-0.4877**	-2.1847	-2.2892

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The unsuccessful acquirers refer to firm which subsequently became unsuccessful in their acquisition. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.4(b)

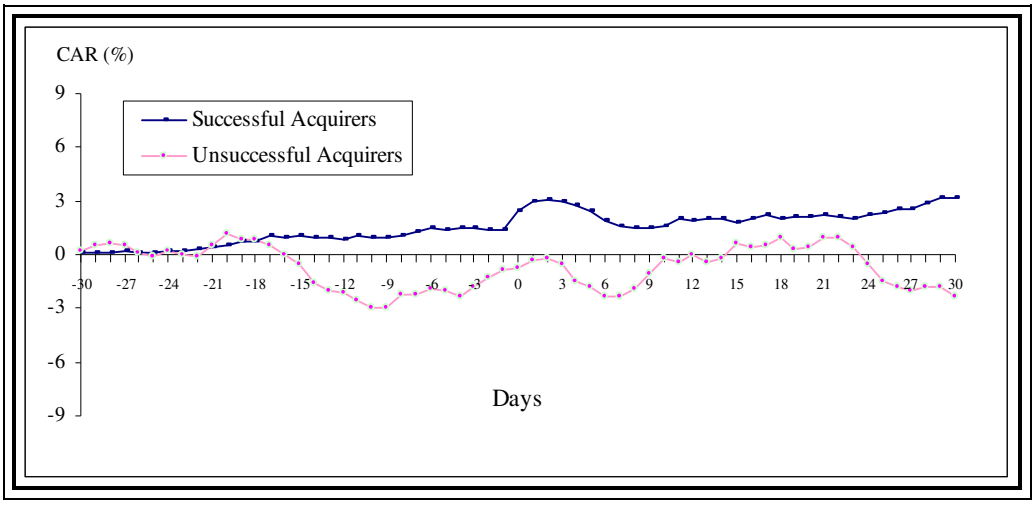
Difference between acquirers' abnormal return: successful acquiring firms versus successful target firms, 2000-2004

Holding Returns CAR Range	Successful Acquirers (N = 124)		Unsuccessful Acquirers (N = 15)		*t*-statistic for difference
	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	1.4266	0.6404	-1.3191	-0.6278	0.9455
Day -1 to Day 1	1.5544***	3.4879	0.9648	0.7784	0.4703
Day 2 to Day 30	0.1960	0.9403	-1.9349	-0.9858	0.6953
Day -5 to Day 5	0.9497*	1.9290	0.1121	0.8528	0.5217
Day -10 to Day 10	0.4873*	1.6847	2.3063	0.7678	0.6081
Day -20 to Day 20	1.7003	1.2525	-0.0582	-0.7976	0.3971
Day -30 to Day 30	3.1770	1.1016	-2.2892	0.8241	1.6547*
Pre-announcement: Day -30 to Day -1	1.3282	0.6297	-0.8717	0.6318	0.8147
Post-announcement: Day 0 to Day 30	1.8488	1.4279	-1.4175	0.9747	-1.7890*

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$. ***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.2

Cumulative abnormal return (CAR) around the acquisition announcement for the acquiring firms for the successful and unsuccessful acquisitions, 2000-2004



Notes: Percentage cumulative returns for the acquiring firms for the successful (N = 124) and unsuccessful (N = 15) acquisitions for 30 days before and after the announcement of acquisitions.

Share Price Reaction to Outcome Date

Our evidence thus far indicates that the market is not able to distinguish between successful and unsuccessful acquisition at the time of the announcement. However, Asquith (1983) observes that the success or failure of acquisition is predicted by the market shortly the announcement, well in advance of the outcome date. In this section, price behaviour around the announcement of the outcome is analyzed. The outcome date is the date the acquirer announces to Bursa Malaysia the conclusion of the transaction: for successful acquisitions, this is the day the final approval is obtained from the Extraordinary General Meeting (EGM); and for the unsuccessful acquisitions, this is the day the transaction is announced as being abandoned.

Table 4.5(a) shows the return analysis for the successful and unsuccessful acquiring firms and target firms around the announcement of the outcome date. It can be seen that there is an announcement effect for the successful acquiring firms on day 0 to day 1, where there is a positive abnormal return of 0.9847% (*t*-statistic = 2.5525) and 0.3715% (*t*-statistic = 1.9686), respectively, and both are significant at the 5% level. A similar pattern is observed for target firms', the largest gain for the successful target occurs on day 0 when the outcome of the acquisition is announced, this single day gain is 2.1023% (*t*-statistic = 2.9650). The significant gain of the successful target starts from day -4 to day 1, and is then followed by four consecutive insignificant losses on day 2 to day 5. The results continue to show a positive return at the post-acquisition period, they are day 9 (AR = 0.6889% and *t*-statistic = 1.9998), day 13 (AR = 0.7446% and *t*-statistic = 1.6772), day 27 (AR = 0.7487% and *t*-statistic = 2.1375), and day 30 (AR = 0.4219% and *t*-statistic = 2.2196). Table 4.5(a) show that the returns for unsuccessful acquiring firm are

consistently negative for the pre- and post-acquisition, this suggests that there is no new information released on the outcome date.

Table 4.5(b) presents further analysis of successful acquiring and target firms' CARs and the corresponding *t*-statistic for various sub-windows. It can be observed that for all the various sub-windows, successful target firms' CARs are higher than the successful acquiring firms' CARs. For the 3-day announcement period, day -1 to day 1, the successful targets' CAR of 5.4525% is greater than the acquiring firms' CAR of 1.3263% by a margin of 4.1262%, both returns are significantly different from zero. The last column shows the *t*-statistic is to test the difference between acquiring firms CAR and target firms CAR. The evidence seems to suggest that the CARs are significantly different between acquiring and target firms.

The stock price changes in the period between the announcement date and the outcome date demonstrate how the stock market responds to an acquisition announcement in progress. If the outcome of an acquisition is known at the time of announcement, then in an efficient market stock prices incorporate this information at the announcement date. However, if the outcome is uncertain, the abnormal stock price change at the announcement date only contains an evaluation of the acquisition probability. Subsequent abnormal price changes in the period between the announcement date and the outcome date will occur as new information becomes available.

The CAR in Table 4.5(a) for both the successful and unsuccessful acquiring, and target firms is graphed in Figure 4.3. The general trend of the behaviour of the CAR is somewhat similar to those during the announcement window. The gains for target firms are greater than the gains for the acquiring firms during the observation period; this is quite consistent with the previous evidence. In the pre-announcement of the outcome date, the CAR for successful acquiring firms is small and close to the zero level and shows a slightly uptrend beginning from day 0 to reach the peak of about 2% on day 1, then levels off in the post-announcement period.

As for successful target firms, the CAR in Figure 4.3 shows a clear uptrend prior to the outcome and continues until the end of the study window. The behaviour for the successful target is similar to the announcement CAR (see Figure 4.2). The successful targets' display large positive CARs around the pre-announcement period. While at the outcome date, target firms of successful acquisitions show a dramatic positive return. This upward revision in target prices after the outcome date announcement seems to imply that the market viewed the move positively. This may suggest that target firms have unique resources that provide synergy when acquiring and target combine.

Figure 4.3 reveals that the CAR of the unsuccessful acquirers tends to suffer losses, while the successful acquirers do not lose or have small positive returns. This behaviour is consistent with the previous sections on the CAR around the announcement period (see Figure 4.2). As the probability of rejection acquisition increases, it could be expected that the unsuccessful acquirers share price would have fallen to reflect this news prior to the outcome announcement. The graph in

Figure 4.3 indicates that news of the acquisition offers being rejected was incorporated into acquirers share price around the post-announcement period. The behaviour of the successful acquirers and unsuccessful acquirers CARs around the outcome announcement period lends support to the synergy hypothesis. The market perceives the gains to be enjoyed only if there is a successful acquisition.

The apparently permanent revaluation of the shares of successful target seems to supports the synergy hypothesis. And the revaluation of the shares of successful and unsuccessful acquiring firms also seems to supports the synergy hypothesis. However, there is no sufficient evidence to reject the information effect hypothesis. The positive returns to successful acquiring and target firms at the outcome date signify that there is new information. This finding is consistent with Asquith (1983) who finds that successful target firms gain both during the announcement as well as during the outcome date. Whereas, successful acquiring firms earn little returns, and unsuccessful acquiring firms earn negative returns around the outcome announcement period. The following sections, 4.4.3 and 4.4.4, will discuss the acquiring firm returns in the source of synergy by relative size of target to acquiring firms and industry relatedness.

Table 4.5(a)

Abnormal return (AR) and cumulative abnormal return (CAR) around the outcome date for the successful acquiring firms and successful target firms, 2000-2004

	Successful Acquiring Firms (N = 124)		Unsuccessful Acquiring Firms (N = 15)		Successful Target Firms (N = 32)	
Day	**AR (%)**	**CAR (%)**	**AR (%)**	**CAR (%)**	**AR (%)**	**CAR (%)**
-30	0.1874	0.1874	-0.0260	-0.0260	0.2982	0.2982
-25	-0.0416	-0.0623	0.2874	0.5501	0.1052	2.0660
-20	0.1294	0.3158	0.2785	1.0032	-0.0277	2.8700
-19	0.1951	0.5109	-0.6754	0.3278	0.0205	2.8905
-18	0.0917	0.6026	0.0262	0.3540	-0.4444	2.4461
-17	0.2437	0.8463	-0.5157	-0.1617	-0.2556	2.1905
-16	-0.1565	0.6898	-0.2802	-0.4419	-0.0109	2.1796
-15	-0.0298	0.6600	-0.5957	-1.0376	0.1297	2.3093
-14	-0.0460	0.6140	-0.7269	-1.7645	0.6231*	2.9324
-13	-0.0752	0.5388	0.1350	-1.6295	0.4118	3.3442
-12	-0.0623	0.4765	-0.2430	-1.8725	0.3794	3.7236
-11	0.0756	0.5521	-0.2479	-2.1204	0.2473	3.9709
-10	-0.0911	0.4610	-0.4944	-2.6148	0.3425	4.3134
-9	-0.0132	0.4478	0.0360	-2.5788	0.0456	4.3590
-8	0.0626	0.5104	0.7540	-1.8248	0.1435	4.5025
-7	0.2307	0.7411	-0.5527	-2.3775	0.4759	4.9784
-6	0.1957	0.9368	-0.0040	-2.3815	0.1000	5.0784
-5	-0.1312	0.8056	0.2745	-2.1070	-0.1285	4.9499
-4	0.0347	0.8403	0.3185	-1.7885	0.6718**	5.6217
-3	-0.0227	0.8176	0.5656	-1.2229	1.6315***	7.2532
-2	-0.0247	0.7929	0.2562	-0.9667	0.5036**	7.7568
-1	-0.0299	0.7630	0.2920	-0.6747	1.3436*	9.1004
0	**0.9847****	**1.7477**	**-0.0220**	**-0.6967**	**2.1023****	**11.2027**
1	0.3715**	2.1192	0.1504	-0.5463	2.0066**	13.2093
2	-0.0727	2.0465	-0.0321	-0.5784	-0.0790	13.1303
3	-0.0528	1.9937	-0.4682	-1.0466	-0.0040	13.1263
4	-0.2512	1.7425	-0.4856	-1.5322	-0.1115	13.0148
5	-0.3670	1.3755	0.0441	-1.4881	-0.1058	12.9090
6	-0.2962	1.0793	-0.0849	-1.5730	0.3795	13.2885
7	-0.1823	0.8970	0.4803	-1.0927	0.0047	13.2932
8	-0.0266	0.8704	0.2053	-0.8874	0.6211	13.9143
9	0.1061	0.9765	0.1103	-0.7771	0.6889**	14.6032
10	0.1814	1.1579	0.6155	-0.1616	0.0364	14.6396
11	0.4353**	1.5932	-0.4590	-0.6206	0.1729	14.8125
12	-0.1326	1.4606	0.5378	-0.0828	0.5474	15.3599
13	0.0618	1.5224	-0.4564	-0.5392	0.7446*	16.1045
14	-0.0680	1.4544	0.6642	0.1250	0.7806	16.8851
15	-0.1935	1.2609	0.1078	0.2328	-0.1023	16.7828
16	0.2303	1.4912	-0.2687	-0.0359	-0.0627	16.7201
17	0.2102	1.7014	-0.2757	-0.3116	0.2415	16.9616
18	-0.1583	1.5431	0.4322	0.1206	-0.1400	16.8216
19	0.0087	1.5518	0.1287	0.2493	-0.2476	16.5740
20	0.0418	1.5936	0.0174	0.2667	0.3209	16.8949
25	0.1124	1.9498	-0.2976	-1.0025	-0.0538	16.2858
30	-0.0890	1.5880	0.0357	-0.8847	0.4219**	17.9096

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The unsuccessful acquirers refer to firm which subsequently became unsuccessful in their acquisition. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.5(b)

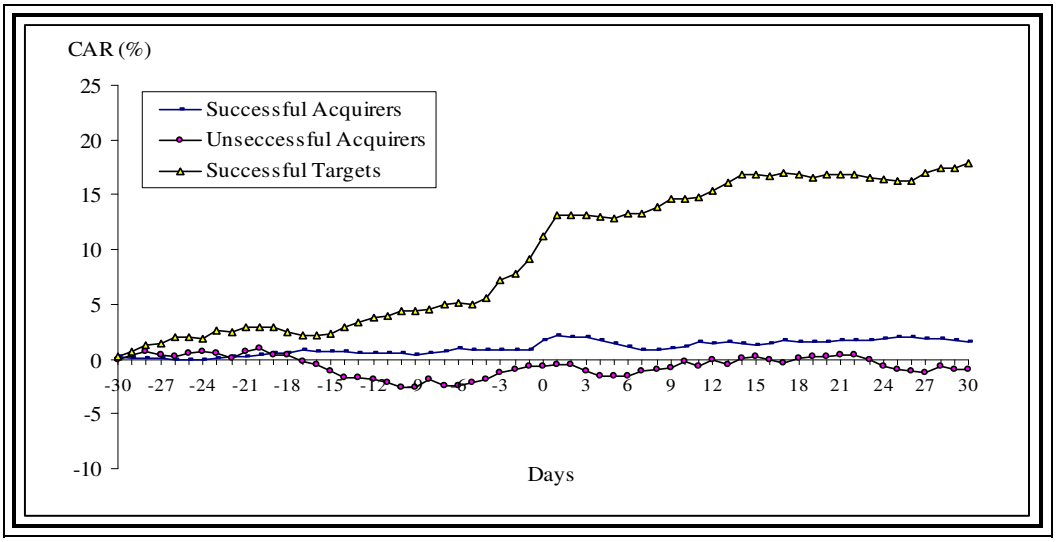
Difference between acquirers' abnormal return: successful acquiring firms versus successful target firms, 2000-2004

Holding Returns CAR Range	Successful Acquiring Firms (N = 124)		Successful Targets Firms (N = 15)		*t*-statistic for difference
	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	0.7929	0.2617	7.2532	0.5974	1.9384*
Day -1 to Day 1	1.3263**	1.9593	5.4525*	1.9094	1.6559*
Day 2 to Day 30	-0.5311	0.7264	4.7001	0.9833	1.3299
Day -5 to Day 5	0.4387	1.0925	7.8307	1.7851*	1.9641**
Day -10 to Day 10	0.6058	0.8767	10.6689	1.0392	2.3117**
Day -20 to Day 20	1.4071	0.3362	13.9974	0.9151	2.6199***
Day -30 to Day 30	1.5881	0.6872	17.9096	0.8993	2.6887***

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.3

Cumulative abnormal return (CAR) around the outcome date for the successful and unsuccessful acquiring firms, and successful target firms, 2000-2004



Notes: Percentage cumulative returns for the successful (N = 124) and unsuccessful (N = 15) acquiring firms and successful target firms (N = 32) for 30 days before and after the announcement of acquisitions.

4.4.3 Acquiring Firm Returns by Relative Size

In the previous section 4.4.2, the result lends support to the synergy hypothesis but does not support the information effect hypothesis. If acquisition gain is due to the synergy, the gain may be related to size and industry relatedness. It is a known fact that the target firm size is relatively small to the acquiring firm. The relative size of

target to acquirer would determine the size of the synergy benefits. At the basic level, the larger the target relative to acquirer, the greater effects of the acquisition on the acquirer, and more likely a greater market reaction.

Table 4.6(a) and 4.6(b) presents abnormal returns of acquiring firms by relative size of target for the period -30 to 30 days around the acquisition announcement. The relative size of the target is defined as the deal value divided by acquirer market value. The acquirer market value is calculated one month prior to the announcement date (i.e., monthly share price multiplied by the number of shares issued). The acquiring sample is then divided into sub-samples of relative size of target to acquiring firm: the smaller relative size is less than 20%, and the larger relative size is 20% or more.

Table 4.6(a) shows that on the announcement day, when target is small, acquiring firm returns is 1.0380% (*t*-statistic = 5.5262), the returns turn into negative returns in the day 2, and this negative return is significant on day 5 to day 7 only. While when target is large, acquiring firm returns is 1.0826% (*t*-statistic = 3.7582). At the post-announcement period, several days continue to earn statistically significant abnormal returns. They are day 1, day 4, day 11 to 12, and day 14.

Table 4.6(b) presents the cumulative abnormal returns and the corresponding *t*-statistic for various sub-windows by relative size of target to acquiring firm. It can be observed that for all various sub-windows, the acquiring firm's CARs for small and large target are significant different from zero for the period of day -1 to day 1 and day -5 to day 5 only. Other sub-periods are insignificantly different from zero.

The *t*-statistic shows that there is no significant CAR between acquiring firms for small and large targets.

Figure 4.4 presents the plots of cumulative abnormal return (CAR) of acquiring firm by relative target size. The figure shows that acquiring firms' CAR does not show a clear uptrend prior to the announcement. The CAR for small targets shows a big jump on day zero but then slides downwards from day 2 until day 7 before taking a slight uptrend until the end of the observation window. While for the acquirer of large target the CAR experiences big increase around the announcement days, then takes a decreasing trend until day 10, and then took an upward movement until the end of the study window.

The CARs are generally positively related to the relative size. The result shows that the market reaction to the acquisition announcement is weaker when relative size of target to acquirer is small. As relative size may proxy for the synergy benefits from the acquisition, this might imply that the acquisition in small deals creates a relatively small amount of synergy. The results support the $H_a3.3$ hypothesis that there exists a relationship between the acquiring firm's return and the relative size of target to acquiring firms. This finding is consistent with Asquith, Burner and Mullins (1983), Jensen and Ruback (1983) and Fuller *et al*. (2002) who find that acquirer abnormal returns increase with the relative size of target to acquiring firm.

Table 4.6(a)

Average abnormal return (AR) and the corresponding *t*-statistic, cumulative abnormal return (CAR) of acquirers by relative size of target to acquiring firm, 2000-2004

	Smaller Relative Size - less than 20% (N = 73)			**Larger Relative Size - 20% or more (N = 66)**		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	0.3144	0.8926	0.3144	-0.0464	-0.3038	-0.0464
-25	-0.1793	-0.6656	0.1729	0.0955	0.6907	-0.0201
-20	0.1361	0.3358	0.6246	0.2623	0.7236	0.6170
-19	0.1547	0.2686	0.7793	0.0940	0.2349	0.7110
-18	0.0874	0.7718	0.8667	0.0809	0.4626	0.7919
-17	0.3400	1.3681	1.2067	0.0657	0.1799	0.8576
-16	-0.2796	-1.0824	0.9271	0.0202	0.1299	0.8778
-15	-0.1495	-0.7561	0.7776	0.1018	0.1748	0.9796
-14	-0.1033	-0.1946	0.6743	-0.2275	-0.6822	0.7521
-13	-0.1477	-0.5134	0.5266	0.0641	0.4214	0.8162
-12	-0.2656	-1.0246	0.2610	0.1207	0.9980	0.9369
-11	0.3292	1.0241	0.5902	-0.0261	-0.0436	0.9108
-10	-0.0430	-0.7494	0.5472	-0.3315	-1.0278	0.5793
-9	-0.0118	0.1254	0.5354	-0.0405	-0.0420	0.5388
-8	0.0169	0.3740	0.5523	0.2985	0.7704	0.8373
-7	0.2014	0.3262	0.7537	0.1312	1.1423	0.9685
-6	0.1526	0.7550	0.9063	0.3413	1.1228	1.3098
-5	-0.2582	-1.0967	0.6481	0.0952	0.1591	1.4050
-4	0.1846	0.3772	0.8327	-0.0366	-0.2255	1.3684
-3	-0.1656	-0.4332	0.6671	0.3059	1.1745	1.6743
-2	-0.0518	-0.1983	0.6153	0.1401	0.3812	1.8144
-1	-0.0647	0.2120	0.5506	0.0266	-0.0738	1.8410
0	**1.0380*** **	**5.5262**	**1.5886**	**1.0826*** **	**3.7582**	**2.9236**
1	0.2355	0.7617	1.8241	0.6891**	2.3871	3.6127
2	-0.1274	-0.8455	1.6967	0.3856	0.8070	3.9983
3	-0.1860	-1.2035	1.5107	-0.1008	0.0464	3.8975
4	-0.0734	-0.5671	1.4373	-0.4246*	-1.8034	3.4729
5	-0.1905*	-1.8393	1.2468	-0.3953	-0.9694	3.0776
6	-0.2548*	-1.8527	0.9920	-0.3172	-1.0561	2.7604
7	-0.3433*	-1.7016	0.6487	-0.3056	-0.9760	2.4548
8	0.0058	-0.2568	0.6545	-0.1015	-0.4559	2.3533
9	0.3463	1.6253	1.0008	-0.0597	-0.8783	2.2936
10	0.2120	0.0711	1.2128	0.1445	1.5076	2.4381
11	0.2574	0.8537	1.4702	0.3538*	1.9195	2.7919
12	-0.2216	-0.4390	1.2486	0.4103*	1.6538	3.2022
13	-0.0425	-0.0479	1.2061	0.1505	0.0588	3.3527
14	-0.3461	-1.0962	0.8600	0.4559*	1.7740	3.8086
15	0.2184	0.7509	1.0784	-0.3527	-0.0884	3.4559
16	0.3395	0.9687	1.4179	-0.0826	-0.0060	3.3733
17	0.0765	0.2397	1.4944	0.3617	1.2363	3.7350
18	-0.0872	-0.3122	1.4072	0.0447	-0.1911	3.7797
19	-0.0178	-0.2992	1.3894	0.0741	1.0121	3.8538
20	0.2148	0.2980	1.6042	-0.1860	-0.8413	3.6678
25	0.1335	0.9198	1.8109	-0.0856	-0.7808	3.7123
30	0.0048	0.7891	2.4459	0.1375	0.2546	4.4376

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.6(b)

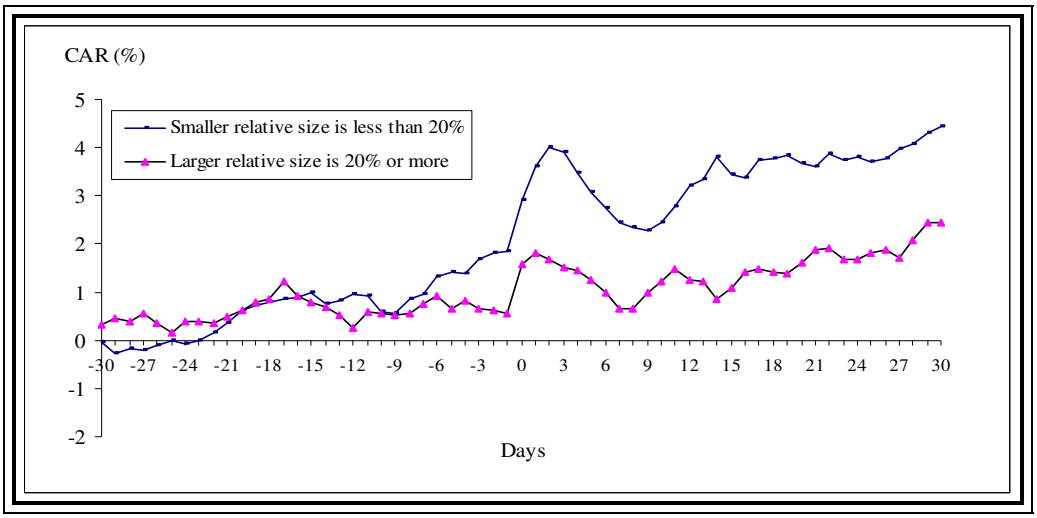
Difference between acquirers' abnormal return: smaller versus larger relative size of target to acquiring firm, 2000-2004

Holding Returns CAR Range	Target Relative Size less than 20% (N = 73)		Target Relative Size 20% or more (N = 66)		*t*-statistic for difference
	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	0.6153	0.7212	1.8144	0.5985	0.5565
Day -1 to Day 1	1.2088***	2.6528	1.7983**	2.5502	0.6440
Day 2 to Day 30	0.6218	0.9177	0.8249	0.9987	0.0775
Day -5 to Day 5	0.3405*	1.7052	1.7678*	1.6609	0.8145
Day -10 to Day 10	0.6266	1.3625	1.5272	1.2989	0.4066
Day -20 to Day 20	1.1156	1.1015	3.3131	1.1133	0.7149
Day -30 to Day 30	2.4459	0.9969	4.4376	0.9820	0.5566

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.4

Cumulative abnormal return (CAR) of acquiring firms by the relative size of target to acquiring firm, 2000-2004



Notes: Percentage cumulative returns by the relative size of target to acquiring firms for 30 days before and after the announcement of acquisitions. Acquirers that relative size is less than 20% (N = 73) and relative size is 20% or more (N = 66).

4.4.4 Acquirer Returns by Industry Relatedness

If the acquiring and target firms are from the same industry the presumption is that operational synergy is present and both acquiring and target firms will gain. Acquisition can be seen as part of a diversification strategy and can result in further growth opportunities and profitability as well as synergies with the firm's current activities. On the other hand, diversifying across industry may lead to reducing the correlation of possible investment out comes, and increases the benefits of diversification to investors. In terms of industry relatedness, acquisition can distinguish between conglomerate acquisitions (across industry diversification) and non-conglomerate acquisitions (related diversification). Conglomerate acquisition might be riskier than non-conglomerate acquisition; this is because across industry diversification strategy requires the most careful investigation of the firm's own strengths and weaknesses. The poor performance in conglomerate acquisitions may also due to the acquiring firm management lack of experience, skills and technique in the newly diversified industry.

Table 4.7(a) presents a comparison of abnormal returns for acquirers of conglomerate and non-conglomerate targets around the announcement. The acquiring sample consists of 97 non-conglomerate acquisitions and 42 conglomerate acquisitions. On the announcement day, the acquiring firm return in non-conglomerate acquisitions is 1.3921% (*t*-statistic = 4.6461), and is significantly different from zero. In the pre-announcement period, the returns are insignificant, while in the post-acquisition period several days have significant negative returns. The second part of Table 4.7(a) shows that on the announcement day, the acquiring firm return in conglomerate acquisitions is 1.2919% (*t*-statistic = 3.4652), which is

significantly different from zero. It is also interesting to note that at the pre- and post- announcement several days have small significant positive returns in conglomerate acquisitions.

Table 4.7(b) reports the CARs and the corresponding *t*-statistic of acquiring firms that acquired related (non-conglomerate) and unrelated (conglomerate) industry acquisitions. For the 3-day announcement period, day -1 to day 1, the acquirer in non-conglomerate acquisitions' CAR of 2.1237% and conglomerate acquisitions' CAR of 1.9604%, both are significant at the 5% level. It can be observed that for the various sub-windows, acquirers that acquired targets in the same industry have higher CARs than those that acquired targets in an unrelated industry. However, the *t*-statistic column indicates that the CAR for the non-conglomerate and conglomerate acquisitions is not significantly different for all the sub-windows.

Figure 4.5 present the cumulative abnormal returns (CAR) for the acquiring firms by the industry relatedness. During the days prior to the announcement day, acquirers in conglomerate and non-conglomerate acquisition seem to show a similar trend of abnormal returns and, both earn positive returns. The CAR remains stable after the announcement day, and show a clear uptrend until day 6, and it starting to stabilize until the end of the study window. However, there is not much difference in the behaviour between the two CARs.

The evidence presented in this section does not support $H_a3.4$ hypothesis that there is significant difference of abnormal returns between acquirers of non-conglomerate and conglomerate targets.

Table 4.7(a)

Average abnormal return (AR) and the corresponding *t*-statistic, cumulative abnormal return (CAR) of acquiring firms around the announcement day: non-conglomerate versus conglomerate acquisitions, 2000-2004

	Non-conglomerate Acquisitions[a] (N = 97)			Conglomerate Acquisitions[b] (N = 42)		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	0.2587	0.7918	0.2587	-0.0914	-0.1885	-0.0914
-25	0.3029	0.0465	-0.1305	-0.1339	-0.0392	-0.0985
-20	0.1327	0.4842	0.4036	0.3246	0.6557	1.1663
-19	0.3312	0.2568	0.7348	0.2294	0.9958	1.3957
-18	0.2366	0.0800	0.9714	0.4393*	1.6927	1.8350
-17	0.2547	1.2298	1.2261	0.0572	0.1773	1.8922
-16	0.2493	0.2187	1.4754	-0.5741	-1.5017	1.3181
-15	0.2545	0.0424	1.7299	-0.3176	-0.7709	1.0005
-14	0.1718	0.2093	1.9017	-0.5225	-0.7066	0.4780
-13	0.1901	0.4920	2.0918	-0.0139	-0.6852	0.4641
-12	-0.0642	-0.0363	2.0276	-0.1051	-0.0226	0.3590
-11	0.3723	0.1791	2.3999	0.3558	1.3420	0.7148
-10	-0.0674	-1.2861	2.3325	-0.1070	-0.3956	0.6078
-9	0.4642	0.1485	2.7967	-0.1020	-0.0267	0.5058
-8	0.0100	0.2966	2.8067	0.4756	1.0060	0.9814
-7	0.1174	0.3362	2.9241	0.5050*	1.6570	1.4864
-6	0.2643	1.2303	3.1884	0.1302	0.7949	1.6166
-5	0.0808	-0.4871	3.2692	-0.1631	-0.4035	1.4535
-4	0.0363	0.9463	3.3055	-0.0620	-0.6605	1.3915
-3	0.0195	0.5311	3.3250	-0.0403	-0.1189	1.3512
-2	-0.4280	-0.3387	2.8970	0.2785	0.6200	1.6297
-1	-0.0098	-0.5653	2.8872	-0.2524	-0.4731	1.3773
0	**1.3921*** **	**4.6461**	**4.2793**	**1.2919*** **	**3.4652**	**2.6692**
1	0.7414	1.1810	5.0207	0.9209*	1.6514	3.5901
2	0.1891	0.6165	5.2098	-0.1731	-0.9935	3.4170
3	0.0304	1.1127	5.2402	0.2717	0.1009	3.6887
4	-0.6813*	-1.7279	4.5589	0.2302	0.7012	3.9189
5	-0.2082	-0.8687	4.3507	-0.1927	-0.7581	3.7262
6	-0.6304*	-1.6505	3.7203	-0.4939	-0.6426	3.2323
7	-0.2301**	-2.0594	3.4902	-0.0937	-0.0804	3.1386
8	-0.0045	-0.7044	3.4857	-0.3004	-0.7829	2.8382
9	0.4668*	1.6717	3.9525	0.0301	1.1711	2.8683
10	0.5800	0.7761	4.5325	0.1801	1.0571	3.0484
11	0.9243*	1.7676	5.4568	0.3845	0.6163	3.4329
12	-0.2306	-0.5406	5.2262	0.0353	0.0156	3.4682
13	-0.2515	-0.5714	4.9747	0.2437	0.8519	3.7119
14	-0.0936	-0.1966	4.8811	0.1458	0.1793	3.8577
15	-0.4377	-0.2957	4.4434	0.1290*	1.7853	3.9867
16	0.5737*	1.9268	5.0171	-0.2840	-0.9574	3.7027
17	0.2342	0.8414	5.2513	0.3616	0.7328	4.0643
18	-0.5076	-0.3824	4.7437	0.1345	0.0855	4.1988
19	0.1862	1.1512	4.9299	0.2476	0.2026	4.4464
20	0.0728	0.2058	5.0027	0.0574	0.6013	4.5038
25	0.5386	1.3411	4.8834	-0.1933	-0.1845	4.2564
30	0.1631	0.0019	5.5415	-0.3325	-0.5308	4.2642

Notes: Returns are in percentages. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero.

[a] Acquirer and target are operated in the same industry.

[b] Acquirer and target are operated in unrelated industry (diversified firm).

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

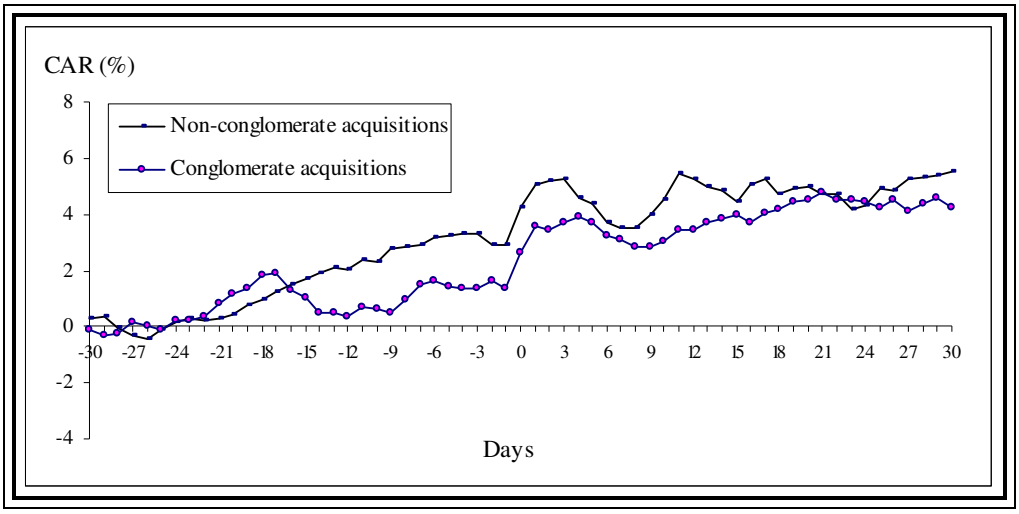
Table 4.7(b)
Difference between acquirers' cumulative abnormal return: non-conglomerate versus conglomerate acquisitions, 2000-2004

Holding Returns CAR Range	Non-conglomerate Acquisitions[b] (N = 97)		Conglomerate Acquisitions[c] (N = 42)		*t*-statistic for difference[a]
	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	2.8970	0.5739	1.6297	0.8155	0.3742
Day -1 to Day 1	2.1237**	2.7869	1.9604**	2.1446	0.7412
Day +2 to Day 30	0.5208	1.0499	0.6741	0.7376	0.0291
Day -5 to Day 5	1.1623*	1.6566	2.1096	1.2380	0.8966
Day -10 to Day 10	2.1326	1.4251	2.3337	1.0895	0.7690
Day -20 to Day 20	4.7318	1.0199	3.6622	1.0006	0.7372
Day -30 to Day 30	5.5415	1.0309	4.2642	0.8950	0.4541

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, CAR $_{T1,T2} = 0$.
[a] H_0: CAR $_{T1,T2}$ between non-conglomerate and conglomerate acquirers is equal to zero, i.e., $\mu_1 = \mu_2$.
[b] Acquirer and target are operated in the same industry.
[c] Acquirer and target are operated in unrelated industry (diversified firm).
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.5

Cumulative abnormal return (CAR) of acquiring firms: non-conglomerate versus conglomerate acquisitions, 2000-2004



Notes: Percentage cumulative returns of acquiring firm in non-conglomerate and conglomerate acquisitions for 30 days before and after the announcement of acquisitions. Non-conglomerate acquisition (N = 97) and conglomerate acquisitions (N = 42).

4.4.5 Target Status and Returns

Target firms may be classified into two groups based on their listing status, i.e., listed on a stock exchange, or unlisted. Acquiring a listed target is referred to as a "public acquisition" whereas acquiring an unlisted target is called a "private acquisition". The acquisitions involving unlisted private target represent a large portion of the total number of acquisitions in Malaysia. In our study, private acquisitions (N = 107) outnumber public acquisitions (N = 32) in the ratio of 3:1. This is to be expected because there are a limited number of appropriate listed targets compared to the wider selection of unlisted firms. In this section we compare the returns available to the acquirers of public listed targets and acquirers of unlisted private target.

4.4.5.1 Acquiring Firm Returns

Tables 4.8(a) and 4.8(b) show the return analyses for acquiring firms for public and private targets. The result indicates no significant daily abnormal returns for acquirers of public and private acquisitions during the pre-announcement period. On the announcement day, the public acquisitions and private acquisitions show abnormal returns of 1.2730% (*t*-statistic = 2.8205) and 0.9728% (*t*-statistic = 4.6894), respectively, both are significant at the 5% level. In contrast to the pre-announcement period, several post-announcement days have significant returns. For public acquisitions they are day 1, day 7, and day 14, while for private acquisitions they are day 5 and day 6. In Table 4.8(b), for the 3-day announcement period (day -1 to day 1) the abnormal returns are 2.2025% and 1.2442%, respectively, and both are significant at the 5% level. Both of these tend to indicate that public acquisitions yield greater abnormal returns than private acquisitions. However, as shown in Table 4.8(b) the difference is not significant.

Cumulative Abnormal Returns for Acquirers of Public and Private Targets

On the whole, the results in Table 4.8(b) show that public acquisitions generate greater abnormal returns than private acquisitions. For the entire event window (day -30 to day 30), the public CAR is 4.5318% compared to the private CAR 0.4992%, giving a difference of 4.0326%. The last column of the *t*-statistic in Table 4.8(b) refers to the test on whether the abnormal return of acquirers of public targets and acquirers of private targets is statistically different for various CARs. In the pre-announcement period, the *t*-statistic shows that there is significant difference of CAR for the acquirers of public targets and acquirers of private targets. While in the post-acquisition period, the *t*-statistic is insignificant. On average, the *t*-statistic fails to support the H_a4.3 hypothesis that there is a difference of the abnormal returns between acquirers of public targets and acquirers of unlisted private targets. However, the returns over longer time windows, such as the CARs in the sub-windows of day -30 to day -2 and day -30 to day 30, are significantly different between acquirers of public targets and acquirers of private targets.

Figure 4.6 presents the CARs for the acquirers of public and private targets. It can be seen that the market reacts differently to these two types of acquisition. For public acquisitions the CAR takes an uptrend in the pre-announcement period and continues the upward trend until day 3 after the announcement, reaching a peak at about 5% and stabilizes thereafter. Regarding the acquirers of private targets, the CAR is more or less stable remaining largely, close to but below zero.

This finding clearly contradicts the previous studies on this issue. All the previous studies referred to in this study show that private acquisitions generate greater abnormal returns than public acquisitions. These include the studies by Chang

(1998), Fuller *et al.* (2002), Conn *et al.* (2005) and Faccio *et al.* (2006). Two explanations have been proposed by Chang (1998) and Draper and Paudyal (2006) to explain why private acquisitions should generate greater returns than public acquisitions; one is the managerial motive and the other is the liquidity hypothesis. The managerial motive states that acquisitions are motivated by shareholder wealth maximization when they acquire private targets. This is in contrast to maximizing managers' private benefits in terms of empire building and prestige, which is associated with public acquisition. Hence, public acquisitions should generate less or no abnormal returns compared to private acquisitions. On the other hand, the liquidity hypothesis says that acquiring firms pay a liquidity premium to the illiquid private firms as opposed to the more liquid listed firms.

Our results are clearly not consistent with the managerial motive or with the liquidity hypothesis, but support the bargaining power hypothesis proposed by Draper and Paudyal (2006). The hypothesis states that private firms have greater bargaining power by virtue of being closely held and having a high proportion of manager ownership. As such private firms will only enter into acquisition agreements when it gives them maximum benefit. This explanation is particularly compelling in view of the fact that the private targets in Malaysia are mostly family-owned and very closely held. Further, private targets are, on average, much smaller than public targets; therefore, the relative size of private target to acquirer tends to be small and may not result in a significant impact in term of creating synergies.

The next section discusses the test of competing implications of the risk hypothesis by examining the standard deviation and beta of acquirers of public targets versus acquirers of private targets.

Table 4.8(a)

Average abnormal return (AR) and the corresponding *t*-statistic, cumulative abnormal return (CAR) of acquiring firms based on target status: public versus private acquisitions, 2000-2004

	Public Acquisitions (N = 32)			**Private Acquisitions (N = 107)**		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	-0.1227	-1.4991	-0.1227	0.0195	0.1203	0.0195
-25	0.2635	0.7964	0.1904	-0.1504	-0.5835	-0.1805
-20	0.6136	0.8786	1.4377	0.0086	0.0848	-0.1192
-19	0.1564	0.0005	1.5941	0.1013	0.3164	-0.0179
-18	0.8399	1.6315	2.4340	-0.1390	-0.0401	-0.1569
-17	-0.0398	-0.4624	2.3942	0.1756	0.7951	0.0187
-16	0.0514	0.2823	2.4456	-0.1793	-1.0765	-0.1606
-15	0.0277	0.0608	2.4733	-0.1203	-0.4757	-0.2809
-14	-0.1186	-0.3038	2.3547	-0.1576	-0.4544	-0.4385
-13	0.2555	0.2255	2.6102	-0.1548	-0.4031	-0.5933
-12	0.1052	0.5881	2.7154	-0.1163	-0.4740	-0.7096
-11	-0.0836	-1.1785	2.6318	0.0740	0.2518	-0.6356
-10	-0.7028	-1.5666	1.9290	-0.0402	-0.4713	-0.6758
-9	-0.0664	-0.4640	1.8626	-0.0970	-0.2913	-0.7728
-8	-0.1429	-0.3578	1.7197	0.1648	0.8264	-0.6080
-7	0.2907	1.1581	2.0104	0.1139	0.4111	-0.4941
-6	0.1253	1.0607	2.1357	0.1754	0.9859	-0.3187
-5	-0.0086	-0.5780	2.1271	-0.1514	-0.7275	-0.4701
-4	0.1391	1.0312	2.2662	0.0700	0.1103	-0.4001
-3	0.3231	1.5700	2.5893	-0.0805	-0.1814	-0.4806
-2	0.3197	0.7370	2.9090	-0.0843	-0.3406	-0.5649
-1	0.3477	0.9805	3.2567	-0.1594	-0.2218	-0.7243
0	**1.2730****	**2.8205**	**4.5297**	**0.9728*****	**4.6894**	**0.2485**
1	0.5818*	1.8931	5.1115	0.4308	1.4839	0.6793
2	0.2152	0.6812	5.3267	-0.0501	-0.3615	0.6292
3	0.1152	0.7151	5.4419	-0.2520	-0.9403	0.3772
4	-0.6940	-0.8819	4.7479	-0.2955	-0.6639	0.0817
5	-0.0623	-0.6487	4.6856	-0.4721**	-2.3069	-0.3904
6	-0.4599	-0.8869	4.2257	-0.5248*	-1.6831	-0.9152
7	-0.9384*	-1.8795	3.2873	-0.1074	-0.3976	-1.0226
8	-0.7911	-1.1326	2.4962	0.2275	0.4147	-0.7951
9	-0.0772	-0.8127	2.4190	0.1999	1.2747	-0.5952
10	0.1392	1.1240	2.5582	0.1833	0.5767	-0.4119
11	0.4097	1.0879	2.9679	0.2861	1.5063	-0.1258
12	-0.3574	-0.2596	2.6105	0.1765	0.3138	0.0507
13	0.7414	1.1930	3.3519	-0.2245	-0.5072	-0.1738
14	0.2578**	2.1461	3.6097	-0.2329	-1.0520	-0.4067
15	-0.6136	-0.6361	2.9961	0.1469	0.7389	-0.2598
16	-0.3846	-0.8496	2.6115	0.3285	1.3855	0.0687
17	0.5364	1.2103	3.1479	0.0832	0.4690	0.1519
18	-0.4843	-1.1918	2.6636	0.0749	0.1584	0.2268
19	-0.0058	-0.9284	2.6578	0.0190	0.0887	0.2458
20	0.1288	0.9203	2.7866	-0.0348	-0.2814	0.2110
25	-0.1589	-0.0063	3.2936	0.0799	1.2654	0.2675
30	-0.0586	-1.0110	4.5318	-0.0119	-0.9620	0.4992

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero. Public acquisitions refer to acquiring a listed target and private acquisitions refer to acquiring an unlisted target.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.8(b)

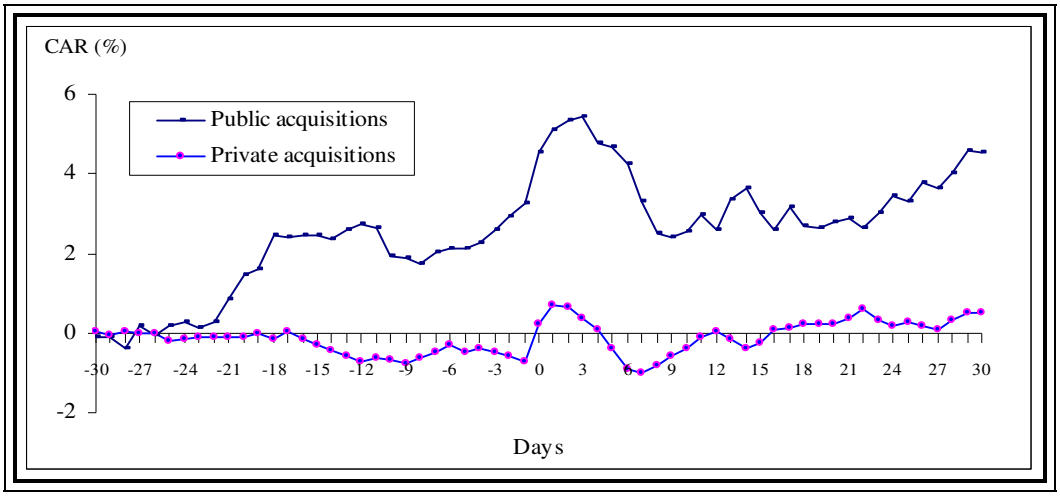
Difference between acquirers' abnormal return: public acquisitions versus private acquisitions, 2000-2004

Holding Returns CAR Range	Public Acquisitions (N = 32)		Private Acquisitions (N = 107)		*t*-statistic for difference[a]
	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	2.9090	0.1045	-0.5649	0.4761	-1.7478*
Day -1 to Day 1	2.2025**	2.0413	1.2442***	2.8426	0.3992
Day 2 to Day 30	-0.5797	1.0233	-0.1801	0.9404	-0.0449
Day -5 to Day 5	2.5501	1.3170	-0.0718*	1.6978	0.9652
Day -10 to Day 10	-0.0735	1.2319	0.2236	1.3621	-0.4320
Day -20 to Day 20	1.9625	1.1096	0.3388	1.0851	1.0273
Day -30 to Day 30	4.5318	1.0254	0.4992	0.9621	1.6812*

Notes: Returns are in percentage. Public acquisitions refer to acquiring a listed target and private acquisitions refer to acquiring an unlisted target. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$. [a] H_0: $CAR_{T1,T2}$ between public acquisition and private acquisition is equal to zero, i.e., $\mu_1 = \mu_2$. ***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.6

Cumulative abnormal return (CAR) of acquiring firms based on target status: public versus private acquisitions, 2000-2004



Notes: Percentage cumulative returns of acquiring firm in public versus and private acquisitions for 30 days before and after the announcement of acquisitions. Public acquisitions (N= 32) and private acquisitions (N = 107).

4.4.5.2 Target Status and Risk Hypothesis

Table 4.9 shows the cumulative abnormal returns and the comparison of the risks as measured by the standard deviations between acquirers of public targets versus acquirers of private targets in different sub-windows. It should be noted that for all the CARs, the standard deviation in public acquisition is greater than private acquisition. However, the *t*-statistic indicates that none of the standard deviations are significantly different between acquirers of public targets and acquirers of private targets, except for the CAR of day 2 to day 30 and the CAR of day -20 to day 20. In the pre-announcement period, the standard deviation for acquirers of public targets and acquirers of private target is 13.22% and 11.54%, respectively. While in the post-announcement period, the standard deviation for acquirers of public targets is 21.38% and acquirers of private target is 12.85%. This indicates that the risks of acquirers of public targets increase more after the acquisition.

Table 4.10 presents the evidence whether the acquisition leads to a change of beta risk. The acquiring firms' beta is divided into before and after the announcement, and into subgroups according to the acquirers of public targets and acquirers of private targets. Table 4.10 presents the results of the test that compares the acquirer's beta before and after the acquisition. Where 'before' refers to days -130 to day -31 before the announcement, and 'after' refers to day 31 to days 130 after the acquisition is consummated. The results show that the acquirer's beta for the whole sample, acquirer of public targets, and acquirers of private targets are not statistically different in the pre-and post-acquisition period.

Table 4.9

Difference between standard deviation of acquirers' abnormal return: acquisition of listed (public) targets versus unlisted (private) targets, 2000-2004

Holding Returns CAR Range	Acquirers of Public Targets (N = 32)		Acquirers of Private Targets (N = 107)		*t*-statistic for difference of Std Dev
	CAR (%)	Std Dev	CAR (%)	Std Dev	
Day -30 to Day -2	2.91%	13.22%	-0.55%	11.54%	0.7468
Day -1 to Day 1	2.20%**	5.83%	1.24%**	5.32%	-0.1007
Day 2 to Day 30	-0.58%	21.38%	-1.18%	12.85%	-1.9504*
Day -5 to Day 5	2.55%	15.20%	-0.07%*	7.81%	-1.4557
Day -10 to Day 10	-0.07%	18.09%	0.22%	10.34%	-1.4278
Day -20 to Day 20	1.96%	24.31%	0.34%	14.36%	-2.3167**
Day -30 to Day 30	4.53%	22.48%	0.50%	12.85%	1.6395

Notes: Std Dev refers to standard deviation.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.10

Difference between betas of acquirers' abnormal return: acquisition of listed (public) targets versus unlisted (private) targets, 2000-2004

Sample	Public acquisitions	Private acquisitions	Difference of beta[a]
	Mean	Mean	*t*-statistic
Pre-announcement period	0.6839	0.8132	0.8990
Post-announcement period	0.9235	0.9004	0.1660
Difference[b]	0.2396 (-1.1544)	0.0872 (-1.2299)	
	Pre-announcement period beta	**Post- announcement period beta**	**Difference of beta**
	Mean	Mean	*t*-statistic
Entire sample	0.7807	0.9176	-3.0488***

Notes: [a] *t*-statistic test of difference between public acquisitions beta and private acquisitions beta.
[b] Difference between pre- and post-announcement period, and the *t*-statistic value is in parentheses.
***, ** and * indicate significance at the 1% level, 5 %t level and 10% level, respectively.

The results in Tables 4.9 and 4.10 imply that, in general, acquisition of public targets and private targets do not lead to risk increasing behaviour. This finding does not support the H_a5 hypothesis that the change in the risks for acquirers of private targets is larger than that for acquirers of public targets. This may suggest that the market is unable to differentiate the risk to acquiring firms that acquired unlisted private targets.

However, the public acquisition standard deviation increases after the acquisition announcement, while the private acquisition standard deviation does not change much after the acquisition announcement. This might be because the asset value in a private acquisition is generally small and does not have a significant influence the acquirer's standard deviation.

4.4.6 Methods of Payment and Firms Returns

Acquiring firms may make an offer to buy shares of target firms either in the form of cash settlement or share-exchange settlement or combination of both. Previous studies show an overwhelming preference by target shareholders for a cash offer as opposed to a share-exchange offer. This study addresses this issue by analyzing abnormal returns based on the method of payment as stated in the announcement

Cash and Shares Financing: Acquiring Firms

Table 4.11(a) presents a comparison of abnormal returns for cash and share financing for acquiring firms for the 61-day period around the announcement. On the announcement day, abnormal returns for cash-offers and share-offers are 1.0281% (*t*-statistic = 5.2612) and 0.8132% (*t*-statistic = 1.9489), respectively, both of which are statistically significant at the 1% level and 10% level. In the pre-announcement period acquirers in both cash and share offers experience insignificant abnormal returns. As for the post-announcement period, several days show statistically significant abnormal returns. The result is consistent with Mat-Nor and Ismail (2006) who find that acquirers gain in cash offer on the announcement date and suffer losses immediately after the announcement date.

Table 4.11(a)

Abnormal returns (AR) and cumulative abnormal return (CAR) for acquiring firms based on the method of payment: cash offers versus share offers, 2000-2004

	Cash Offers (N = 99)			Share Offers (N = 26)		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	0.0394	0.4357	0.0394	-0.1051	0.4634	-0.1051
-25	-0.0793	-0.3370	0.1761	0.0347	0.0942	-0.7558
-20	0.2846	0.5670	0.9514	-0.2117	-0.2413	-1.5519
-19	0.1195	0.4628	1.0709	0.0378	-0.4139	-1.5141
-18	0.0375	0.7055	1.1084	0.1457	0.3209	-1.3684
-17	0.1605	0.5967	1.2689	-0.0196	-0.8523	-1.3880
-16	-0.2291	-1.2815	1.0398	0.1988	0.6637	-1.1892
-15	-0.0793	-0.3441	0.9605	-0.0317	-0.1123	-1.2209
-14	-0.1216	-0.1928	0.8389	-0.3100	-0.4752	-1.5309
-13	-0.1499	-0.5551	0.6890	0.1722	0.5330	-1.3587
-12	-0.1125	-0.2357	0.5765	0.0378	0.1668	-1.3209
-11	0.2213	1.1441	0.7978	0.0809	0.3200	-1.2400
-10	-0.1503	-1.1971	0.6475	-0.2900	-0.1275	-1.5300
-9	-0.0733	-0.2460	0.5742	-0.0847	-0.1717	-1.6147
-8	0.1560	0.4898	0.7302	-0.0625	-0.0349	-1.6772
-7	0.2352	0.6957	0.9654	-0.2368	-0.0729	-1.9140
-6	0.3862	1.4905	1.3516	-0.2294	-0.3128	-2.1434
-5	-0.1357	-0.8871	1.2159	0.0913	0.3715	-2.0521
-4	0.1520	0.6204	1.3679	-0.2026	-0.0697	-2.2547
-3	0.0814	0.5628	1.4493	-0.1270	-0.3223	-2.3817
-2	0.0769	0.4381	1.5262	-0.0924	-0.6450	-2.4741
-1	-0.1209	0.2165	1.4053	0.5226	0.5680	-1.9515
0	**1.0281*** **	**5.2612**	**2.4334**	**0.8132***	**1.9489**	**-1.1383**
1	0.5180*	1.8227	2.9514	0.5317	0.5464	-0.6066
2	0.0196	-0.2689	2.9710	0.0917	0.3604	-0.5149
3	-0.0931	-0.2643	2.8779	-0.3594	-0.7052	-0.8743
4	-0.1941	-0.0131	2.6838	-1.0763*	-1.7014	-1.9506
5	-0.4896*	-1.6965	2.1942	-0.0867	-0.4620	-2.0373
6	-0.4846	-1.4741	1.7096	-0.6718	-1.0674	-2.7091
7	-0.4348	-1.5667	1.2748	0.0272	0.1918	-2.6819
8	-0.0614	-0.2551	1.2134	0.3312	0.3541	-2.3507
9	0.2306	1.4037	1.4440	-0.0387	-0.0368	-2.3894
10	0.3684	1.3595	1.8124	-0.2076	-0.5226	-2.5970
11	0.2498	0.9149	2.0622	0.6435	1.3909	-1.9535
12	0.0730	0.2026	2.1352	-0.0225	-0.2299	-1.9760
13	-0.0681	-0.1845	2.0672	0.4729	0.9041	-1.5031
14	0.0575	0.1418	2.1247	-0.0458	-0.4900	-1.5489
15	-0.0492	-0.0686	2.0755	-0.0066	-0.5121	-1.5555
16	0.1697	0.8881	2.2452	-0.0778	-0.0372	-1.6333
17	0.1149	1.2027	2.3601	0.4608	0.5011	-1.1725
18	-0.1356	-0.6515	2.2245	0.1151	0.5687	-1.0574
19	-0.0478	-0.4147	2.1767	0.0239	0.4807	-1.0335
20	-0.0321	-0.4352	2.1446	0.2279	0.4035	-0.8056
25	-0.0356	-0.7340	2.2263	0.1059	0.2270	-0.4360
30	-0.2201	-0.6287	2.8500	0.3879	1.1750	-0.5163

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero. The payment terms were either all-cash or all-share. ***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.11(b)

Difference between acquirers' abnormal return: cash offers versus share offers, 2000-2004

Holding Returns CAR Range	Cash Offers (N = 99)		Share Offers (N = 26)		*t*-statistic for difference[a]
	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	1.5262	0.7020	-2.4741	0.3633	0.4444
Day -1 to Day 1	1.4252***	3.2171	1.8675	1.2137	0.5370
Day 2 to Day 30	-0.1014	0.8897	0.0903	0.8298	0.7424
Day -5 to Day 5	0.8425*	1.8028	0.1062	0.8953	0.6673
Day -10 to Day 10	1.0145	1.5229	-1.3569	0.7086	0.6244
Day -20 to Day 20	1.4777	1.1844	0.5348	0.6434	0.5683
Day -30 to Day 30	2.8500	1.0581	-0.5163	0.5801	0.6083

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$.
[a] H_0: $CAR_{T1,T2}$ between cash acquirers and share acquirers is equal to zero, i.e., $\mu_1 = \mu_2$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.11(b) shows that for the three-day announcement period (day -1 to day 1), the CARs for the acquirers in cash offers is 1.4252% (*t*-statistic = 3.2172, and significant at the 1% level), and for share offers 1.8675% (*t*-statistic = 1.2137, and insignificant at the 10% level), respectively. For the entire event window of day -30 to day 30, the acquiring firm CAR for cash offers is 2.8500% compared to the share offers of -0.5163% and both are insignificant. In fact, Table 4.11(b) indicates that for all sub-windows, the cash offer CARs is greater than the share offer CARs.

However, the *t*-statistic in Table 4.11(b) does not support the H_a6 hypothesis that the return to acquiring firm in cash settlement is greater than share settlement because none of the differences in the CARs is significant even at the 10% level. However, cash offers CAR is significant for day -1 to day 1, while share offers CAR is insignificant. This implies that cash offers, share offers acquisitions are valued differently by market participants.

Cash and Share Financing: Target Firms

Table 4.12(a) presents a comparison of abnormal returns for cash and share offers for target firms for the 61-day announcement period. The result shows that the target's share price reaction is also sensitive to the methods of payment in an acquisition. On the announcement day, abnormal returns for target firms in cash-offer and share-offer are 2.9610% and 1.7973%, respectively, both of which are statistically significant at the 1% level. In the pre-announcement period, the target firms with share offers do not experience significant price changes, whereas, target firms with cash offers experience significant gains for a few days prior to the announcement date. However, in the post-announcement period, there are several daily abnormal returns that are significant for both the target firm in cash offers and share offers.

Table 4.12(b) shows that for the three-day announcement period (day -1 to day 1), the CARs for both groups: target firm in cash offers (AR= 6.9942%, *t*-statistic = 6.4532, and significant at the 1% level) and target in share offers (AR = 3.0039%, *t*-statistic = 1.0006, and insignificant at the 10% level). For the entire event window of day -30 to day 30, Table 4.12(b) shows that both the cash offer and the share offer are 21.6688% and 10.0779%, respectively, giving a cash-offer premium of 11.5909%. A limitation of the results for targets in share offers in this Table 4.12(b) is its small sample size in both subsamples. The small sample size may have contributed to the lack of significance in the abnormal returns. Nevertheless, there seems to be clear differences in the behaviour of the CAR for all sub-windows. The results show that gains to cash offers exceed the share offer during the announcement periods. In fact, Table 4.12(b) indicates that for all sub-windows, the cash offer CARs are greater than the corresponding share-offer CARs.

Table 4.12(a)

Abnormal returns (AR) and cumulative abnormal return (CAR) for target firms based on the method of payment: cash offers versus share offers, 2000-2004

	Cash Offers (N = 20)			Share Offers (N = 11)		
Day	**AR (%)**	***t*-statistic**	**CAR (%)**	**AR (%)**	***t*-statistic**	**CAR (%)**
-30	0.4488*	1.7555	0.4488	0.0112	0.6226	0.0112
-25	0.4593	0.0647	3.1649	0.2989	0.0259	2.6567
-20	0.5579	0.8997	4.2400	-0.0544	-0.3616	1.7828
-19	0.1232	0.3867	4.3632	-0.0968	-0.2794	1.6860
-18	-0.9798**	-2.8253	3.3834	0.5188	0.6660	2.2048
-17	-0.3752	-0.2745	3.0082	-0.1076	-0.6132	2.0972
-16	0.0734	0.3669	3.0816	-0.2175	-0.1596	1.8797
-15	0.0560	0.0983	3.1376	0.2011	0.4627	2.0808
-14	0.8793*	1.6461	4.0169	0.2472	0.2935	2.3280
-13	0.5687	0.8445	4.5856	0.4792	0.5527	2.8072
-12	0.4610	0.0382	5.0466	0.4740	0.8648	3.2812
-11	0.0123	0.3852	5.0589	0.7289	0.6401	4.0101
-10	0.2454	0.1813	5.3043	0.6216	0.7394	4.6317
-9	-0.0658	-1.0009	5.2385	-0.0217	-0.0761	4.6100
-8	-0.0874	-0.0468	5.1511	0.7006	0.1861	5.3106
-7	0.4983	0.8565	5.6494	0.4901	0.9442	5.8007
-6	0.2308	-0.1493	5.8802	0.1610	0.3386	5.9617
-5	-0.1771	-0.3584	5.7031	-0.0722	-0.7404	5.8895
-4	1.1142	0.4856	6.8173	-0.2667	-0.0710	5.6228
-3	0.8108***	4.7411	7.6281	-0.1121	-0.3221	5.5107
-2	0.7048	1.0591	8.3329	0.6970	0.2739	6.2077
-1	0.9031**	3.2002	9.2360	0.3257	0.9589	6.5334
0	**2.9610*** **	**6.2059**	**12.1970**	**1.7973*** **	**2.6376**	**8.3307**
1	3.1301***	8.7279	15.3271	0.8809*	1.7408	9.2116
2	0.2952	0.1894	15.6223	0.4990	1.1398	9.7106
3	-0.1925	-0.1392	15.4298	-0.8378	-1.2259	8.8728
4	-0.4281	-0.1056	15.0017	-0.5963*	-1.9074	8.2765
5	-0.1068	-0.4513	14.8949	-0.7240	-1.5408	7.5525
6	0.8605	1.5395	15.7554	-0.4690*	-1.5687	7.0835
7	0.0083	1.3402	15.7637	0.4713	0.4652	7.5548
8	0.8655*	1.8138	16.6292	0.0242*	1.7515	7.5790
9	0.5404*	1.6782	17.1696	1.1368	1.5914	8.7158
10	-0.2389	-0.4699	16.9307	-0.5525	-0.1600	8.1633
11	0.4815**	2.5259	17.4122	-0.5452	-0.7931	7.6181
12	0.6779**	2.2561	18.0901	0.3280	0.7297	7.9461
13	1.3703***	3.5841	19.4604	-0.1379	-0.1327	7.8082
14	0.8504*	1.6567	20.3108	0.9909	1.0647	8.7991
15	-0.3016	-0.9572	20.0092	-0.2615	-0.3038	8.5377
16	0.2900	1.1782	20.2992	-0.4961*	-1.8965	8.0416
17	-0.3411	-0.4404	19.9581	1.6824*	1.8370	9.7241
18	-0.5551	-0.8837	19.4030	0.8380*	1.8619	10.5621
19	-0.3230	-0.1455	19.0800	0.0464	0.1573	10.6085
20	0.6075	1.2747	19.6875	-0.1606	-0.1391	10.4479
25	-0.0366	-0.0059	18.5111	-0.2465	-0.0663	11.0958
30	1.2344**	2.6745	21.6688	0.1219	0.1485	10.0779

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero. The payment terms were either all-cash or all-share. ***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.12(b)

Difference between targets' abnormal return: cash offers versus share offers, 2000-2004

Holding Returns	Cash Offers (N = 20)		Share Offers (N = 11)		*t*-statistic for difference[a]
CAR Range	CAR (%)	*t*-statistic	CAR (%)	*t*-statistic	
Day -30 to Day -2	8.3329	1.3074	6.2077	0.5966	0.7956
Day -1 to Day 1	6.9942***	6.4532	3.0039	1.0006	0.4632
Day 2 to Day 30	6.3417	1.3937	0.8663	1.0639	0.3998
Day -5 to Day 5	9.0146**	2.7727	1.5908	1.2022	0.3274
Day -10 to Day 10	11.8719***	3.8311	4.1532*	1.6610	0.4799
Day -20 to Day 20	16.0054**	2.2424	8.6107	1.0598	0.5528
Day -30 to Day 30	21.6688*	1.9453	10.0779	0.9413	0.8639

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$.
[a] H_0: $CAR_{T1,T2}$ between cash targets and share targets is equal to zero, i.e., $\mu_1 = \mu_2$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Cumulative Abnormal Returns for Acquiring and Target Firms

The CAR of cash offers and share offers for acquiring firms in Table 4.11(a) and the CAR of cash offers and share offers for target firms in Table 4.12(a) are presented in Figure 4. 7. This figure depicts the behaviour of the CARs according to the method of payment for both the acquiring and target firms. The most striking observation from the figure is that cash offers have higher returns compared to share offers for both acquiring and target firms. For the acquiring firms, the CAR for cash-offer acquirers and share-offer acquirers show quite similar trends in the pre-and post-announcement period. However, it should be mentioned that the share offer CAR remains below zero for the entire period compared to its cash-offer counterpart, which lies above zero.

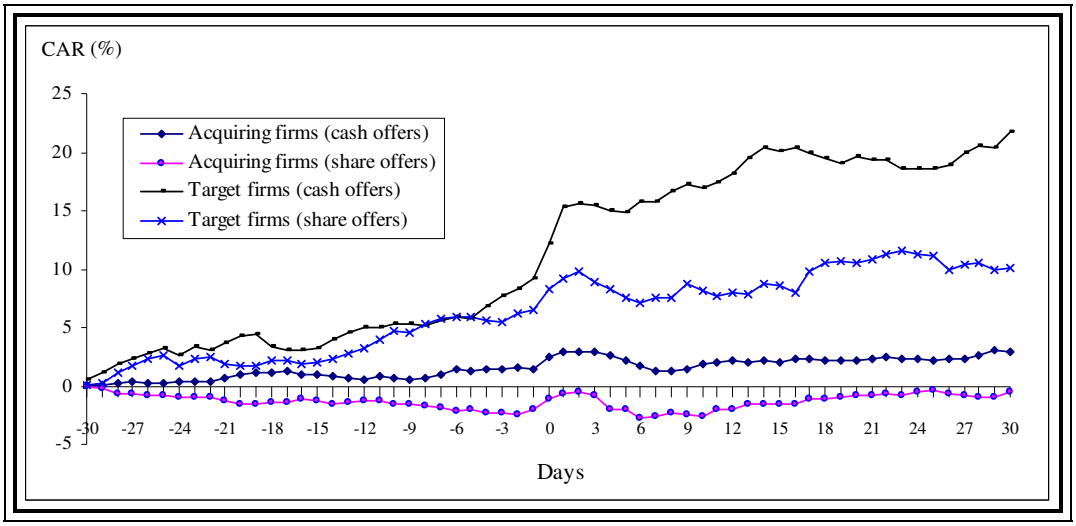
Further, the CAR for cash-offers acquirer increase steadily from day -30 until the announcement day, accumulating abnormal returns about 2%. In contrast, the CAR for share-offer acquirers experience negative about 2% before the announcement day. The abnormal returns during day 0 to day 2 tend to indicate a positive return to cash-offer and share-offers acquirers. After the announcement, both have a similar path

with the CARs beginning to decline from day 3, losing all prior gains, and from day 9 tends to level off.

Regarding target firms, the CAR shows a similar trend over the pre-announcement period for cash and share offers. But after the announcement day the CARs begin to diverge where target firms with cash offers have higher returns than targets with share offers. The cash offer sample accumulates about 9% abnormal returns in the pre-announcement period, while the share offers sample earns about 7% over the same period. After the announcement, both the CARs tend to level off. The evidence that cash offers attract greater abnormal returns to targets compared to share offers is consistent with previous studies. Further, the evidence that share offer samples earn small positive abnormal returns is consistent with the existing evidence.

Figure 4.7

Cumulative abnormal returns for the entire sample of acquiring firms and target firms by the method of payment, 2000-2004



Notes: Percentage cumulative returns of acquiring and target firms for 30 days before and after the announcement of acquisitions. Acquiring firms: cash offers (N = 99) and share offers (N = 26). Target firms: cash offers (N = 20) and share offers (N = 11).

Cumulative Abnormal Returns for the Matched Sample Returns

Figure 4.8 presents the cumulative abnormal returns for the matched sample of acquiring firms and target firms by the method of payment. For this sample data are available for both the acquiring and the corresponding target firms. The sample consists of 20 cash offers and 11 share offers. Figure 4.8 shows that the target CARs are (of course) the same, however, the general trend of the CAR for the acquiring firms in both the cash offer and the share offers are somewhat different from the entire sample. The acquiring firm's CARs first rises in the pre-announcement period, and then falls off immediately after the announcement. It should be noted that all of the CARs are above zero, irrespective of which method of payment is used. On average cash offers have positive CAR for acquiring and target firms, which is distinctly different from the overall acquiring sample of Figure 4.7.

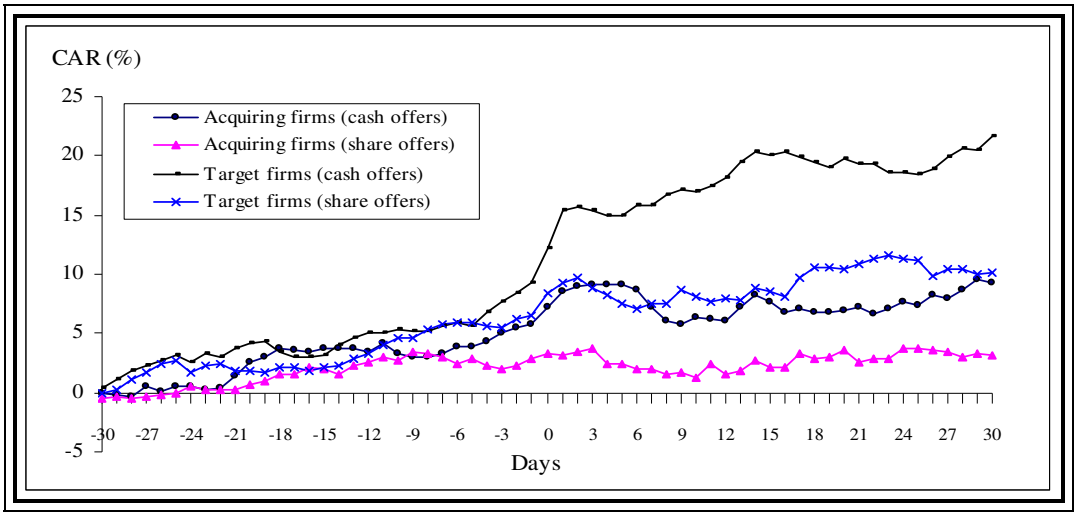
The shareholders preference for cash-offers for acquiring firms, as shown by this study, is consistent with the signalling hypothesis of Myers and Majluf (1984) that the market believes acquiring managers use cash payments when their shares are undervalued and use share settlements when their shares are overvalued. Hence, the announcement leads to price increases for cash-offers. However, it is harder to explain the shareholders preference for cash offer target firms. One explanation proposed by Brown and Ryngaert (1991) is that a premium needs to be paid to target shareholders to compensate for the capital gains tax. However, as there is no capital gains tax in Malaysia, this explanation may not be applicable. The *t*-statistic in Table 4.12(b) refers to the difference of abnormal returns between targets receiving cash offers and targets receiving share offers at any day *t.* The evidence reject the target firm returns and taxes hypothesis (H_a7) that there is a difference in the target's abnormal return

between cash acquisition share acquisition. This tends to confirm that the tax consideration is not applicable in the Malaysian context.

We offer the following explanation. The market anticipating cash payment in an acquisition will trigger a significant change in target share price during the announcement. It appears that the market anticipates target share price run-up in cash acquisitions. This is because the market believes the acquiring firm pay higher in cash offers to "pay-off" target shareholders such that future benefits of the acquisition will belong exclusively to the acquiring firms. In contrast, for share-offers, target shareholders will eventually have a stake in whatever benefits arising from the acquisition. Hence they need not be paid as high in the initial stage.

Figure 4.8

Cumulative abnormal returns for the matched sample of acquiring firms and target firms by method of payment, 2000-2004



Notes: Percentage cumulative returns of acquiring and target firms for 30 days before and after the announcement of acquisitions. Cash offers (N = 20) and share offers (N = 11).

4.4.7 Acquiring Firm Returns, Method of Payment and Target Status

In the earlier analysis, the target status indicates that the firms acquiring publicly listed targets gain positive excess returns while firms acquiring private unlisted targets suffer losses around the announcement period (see section 4.4.5.1). This section analyses the abnormal returns by the method of payment and target status to examine the validity of the information asymmetry and the monitoring role hypothesis, and also to determine if the target status subsumes method of payment or vice-versa.

Public Acquisitions

Table 4.13(a) shows that on the announcement day, the abnormal return for public acquisitions with cash offer is 1.2259% (*t*-statistic = 4.0146 and significant at the 1% level), which is higher than that of the share offer of 0.3758% (*t*-statistic = 0.1310 and not significant at the 10% level). Table 4.13(b) shows that all sub-windows' CARs for cash offers are greater than the share offer. On average, the shareholders of acquiring firms do not experience any significant loss or gain during the pre- and post-announcement period for acquirers using shares to acquire listed targets as shown by the insignificance of the CAR over the entire event window. However, it should mentioned that the *t*-statistic indicates that there is insignificant difference between the CARs of cash offers and share offers.

Private Acquisitions

When looking at different methods of payment for acquisition of private targets, we find that the results are sensitive to the method pf payment used. Table 4.13(a) clearly shows that cash offers are preferred to share offers for private acquisitions. The results show that the announcement day abnormal return is 0.9081 (*t*-statistic = 3.9012 and is

significant at the 1% level) for cash offers and 0.6536% (*t*-statistic = 1.7837 and significant at the 10% level) for share offers. Previous study by Mat-Nor and Ismail (2006) find that acquirers in cash offer gains on the announcement day, and suffer losses immediately after the announcement day, that is on day 1 and day 2.

Table 4.13(b) also indicates that the cash offers CARs are greater than the share offer CARs for all sub-windows except for the announcement period day -1 to day 1. The *t*-statistic result shows that the CARs of cash offers and share offers are significantly different in the sub-period of day -30 to day -2 and day -30 to day 30. Acquirers paying in shares suffer a loss of -5.4949% over the entire event window (61 days). In general the results suggest that shareholders of acquiring firms that acquired unlisted private targets suffer a loss when the payment is in shares, and that acquirers of private targets suffer more than the acquirers of listed targets. Thus, these results are contrary to the prediction of the monitoring role hypothesis.

Cumulative Abnormal Return: Public Acquisitions versus Private Acquisitions

The CARs during the 61 days surrounding the announcement (-30 to 30 days) in Table 4.13(a) are illustrated in Figure 4.9. The figure shows that for both public and private acquisitions, cash offers generate greater abnormal returns than share offers. This evidence is consistent with our earlier analysis on the methods of payment. The results support the view that acquisitions using share payment to the public conveys 'bad' news. This lends support to the information asymmetry hypothesis that paying with shares to the shareholders of unlisted targets is similarly undesirable, just like our findings on share settlement to public targets.

During a 61-day event period, the CAR for acquiring firms in the public acquisitions increases, suggesting that the shareholders of acquiring firms have a small gain from the announcement, regardless of the choice of payment in acquisition. However, the shareholders of the acquiring firms in the private acquisition suffer losses when share-settlement is used, while cash-settlement neither loses nor gains during the event period. Our results indicate the strong presence of both effects, i.e. target status and method of payment, and these effects seem to be independent of each other, and neither effect subsumes the other.

Chang (1998), Fuller *et al.* (2002) and Moeller *et al*. (2004) propose that the corporate monitoring hypothesis leads to private acquisitions with share offers having greater returns than cash offers because the private targets are usually owned by a family or a limited number of partners and, thus, can effectively monitor post-acquisition activity. However, this hypothesis may not be valid in this case. The results of this study indicate the superiority of cash offers over share offers for private (and also public) acquisitions. One possible explanation is that the size of the private targets is very small relative to the size of the acquiring companies. Hence, the target shareholders will not be able to effectively monitor post-acquisition activity. Further, is should also be pointed that both the method of payment effect and target status effect seem to exist independently, which is demonstrated by the divergent behaviour of the CARs in Figure 4.9.

Table 4.13(a)

Abnormal returns (AR) and cumulative abnormal return (CAR) for acquiring firms based on the target status and method of payment, 2000-2004

Day	Public Acquisitions (N = 31)				Private Acquisitions (N = 94)			
	Cash Offers (N = 20)		Share Offers (N =11)		Cash Offers (N = 79)		Share Offers (N = 15)	
	AR (%)	CAR (%)	AR (%)	CAR (%)	AR (%)	CAR (%)	AR (%)	CAR (%)
-30	-0.0119	-0.0119	-0.5243	-0.5243	0.0468	0.0468	-0.0798	-0.0798
-25	0.3157	0.3774	0.1294	-0.0891	-0.1875	0.0624	-0.0176	-1.1628
-20	0.9804	2.1598	0.4942	0.7229	0.0261	0.4298	-0.6774	-3.3516
-19	0.3673	2.5271	0.2507	0.9736	0.0241	0.4539	-0.0367	-3.3883
-18	0.7211	3.2482	0.5207	1.4943	-0.1359	0.3180	-0.6456	-4.0339
-17	-0.1077	3.1405	0.1254**	1.6197	0.2061	0.5241	0.1932	-3.8407
-16	-0.1743	2.9662	0.5116	2.1313	-0.2110	0.3130	-0.1586	-3.9993
-15	0.2017	3.1679	-0.1191	2.0122	-0.1860	0.1270	0.1693	-3.8300
-14	0.0886	3.2565	-0.4178	1.5944	-0.1611	-0.0341	-0.3969	-4.2269
-13	0.0236	3.2801	0.6377	2.2321	-0.2201	-0.2542	-0.1878	-4.4147
-12	-0.1445	3.1356	0.3835	2.6156	-0.0793	-0.3335	-0.2100	-4.6247
-11	0.4382	3.5738	0.3840	2.9996	0.1305	-0.2030	-0.5052	-5.1299
-10	-0.9165*	2.6573	-0.2564	2.7432	0.0402	-0.1628	-0.6067	-5.7366
-9	-0.2229	2.4344	0.6614	3.4046	-0.0558	-0.2186	-0.5484	-6.2850
-8	0.0045	2.4389	-0.0563	3.3483	0.1285	-0.0901	0.2906	-5.9944
-7	0.4089	2.8478	-0.3258	3.0225	0.1664	0.0763	-0.3651	-6.3595
-6	0.4775	3.3253	-0.5471	2.4754	0.2979	0.3742	0.0630	-6.2965
-5	-0.0959	3.2294	0.3935	2.8689	-0.1530	0.2212	-0.3769	-6.6734
-4	0.4434	3.6728	-0.5354	2.3335	0.1070	0.3282	-0.0270	-6.7004
-3	0.6104	4.2832	-0.2790	2.0545	-0.0692	0.2590	-0.1091	-6.8095
-2	0.5442	4.8274	0.2738	2.3283	-0.0576	0.2014	-0.0924	-6.9019
-1	0.3676	5.1950	0.6052	2.9335	-0.2373	-0.0359	0.3460	-6.5559
0	**1.2259*** **	**6.4209**	**0.3758**	**3.3093**	**0.9081** **	**0.8722**	**0.6536***	**-5.9023**
1	1.1052**	7.5262	-0.2009	3.1084	0.3529	1.2251	0.9817	-4.9206
2	0.4589	7.9851	0.3028	3.4112	-0.1098	1.1153	-0.3964	-5.3170
3	0.2855	8.2706	0.3887	3.7999	-0.1816	0.9337	-0.9927	-6.3097
4	-0.1051	8.1655	-1.3033	2.4966	-0.2245	0.7092	-0.3542	-6.6639
5	-0.0201	8.1454	-0.1007	2.3959	-0.6073**	0.1019	0.0787	-6.5852
6	-0.4722	7.6732	-0.3691	2.0268	-0.5171	-0.4152	-0.7284	-7.3136
7	-1.3230**	6.3502	-0.0091	2.0177	-0.1512	-0.5664	0.0995	-7.2141
8	-1.1872	5.1630	-0.4106	1.6071	0.2337	-0.3327	0.7418	-6.4723
9	-0.2602	4.9028	0.0987	1.7058	0.3101*	-0.0226	0.0056	-6.4667
10	0.3829	5.2857	-0.4381	1.2677	0.3220	0.2994	-0.0902	-6.5569
11	-0.0349	5.2508	1.1713**	2.4390	0.3289	0.6283	0.0410	-6.5159
12	-0.2467	5.0041	-0.8912	1.5478	0.0853	0.7136	0.1627	-6.3532
13	0.9662	5.9703	0.2394	1.7872	-0.3749	0.3387	0.7155	-5.6377
14	0.9800	6.9503	0.8655**	2.6527	-0.2134	0.1253	0.0040	-5.6337
15	-0.6712	6.2791	-0.5718	2.0809	0.0895	0.2148	0.3503	-5.2834
16	-0.7657	5.5134	0.1095	2.1904	0.4271	0.6419	-0.3675	-5.6509
17	0.4976	6.0110	1.1790	3.3694	0.0518	0.6937	-0.2599	-5.9108
18	-0.4579	5.5531	-0.4640	2.9054	-0.0901	0.6036	0.3667	-5.5441
19	-0.0671	5.4860	0.1372	3.0426	-0.0577	0.5459	-0.1723	-5.7164
20	0.1119	5.5979	0.5662	3.6088	-0.0898	0.4561	0.0511	-5.6653
25	-0.2754	5.9876	-0.0653	3.6679	0.0610	0.5245	0.1549	-5.8477
30	-0.3295	7.7911	-0.1311	3.1032	-0.1949	0.8872	0.3463	-5.4949

Notes: Returns are in percentage. Day 0 is the press announcement day. Separate market model parameters are estimated before and after announcement (from day -130 to day -31, and from day 31 to day 130 respectively).These are used to calculate the respective abnormal returns before and after the announcement. The Scholes-Williams (1977) technique with one lead and one lag adjustment to account for thin trading on Bursa Malaysia. The corresponding *t*-statistic ($H_0 = 0$), the null hypothesis in that the mean abnormal performance at day *t* is equal to zero. The payment terms were either all-cash or all-share. Public acquisitions refer to acquiring a listed target and private acquisitions refer to acquiring an unlisted target. ***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.13(b)

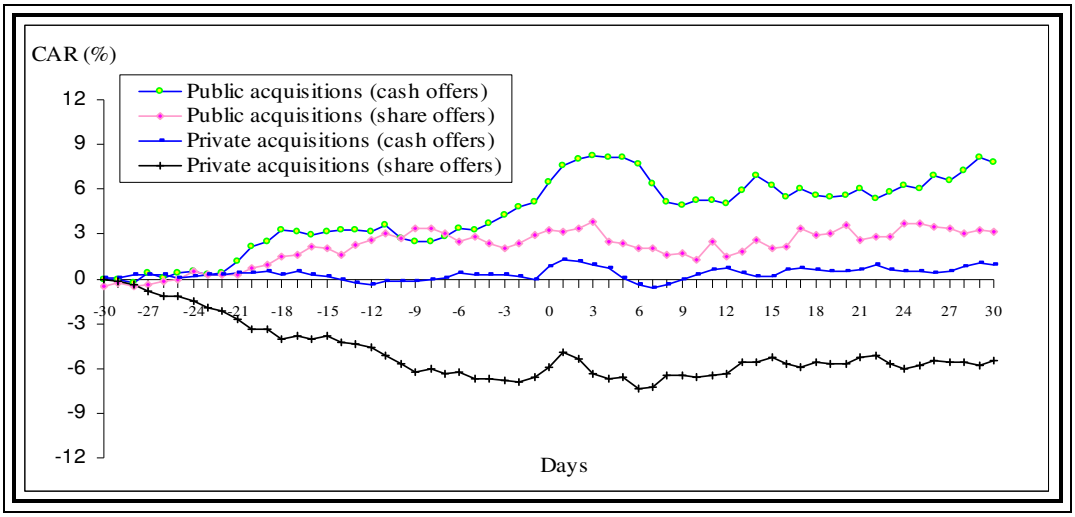
Difference between acquirers' abnormal return: cash offers versus share offers, 2000-2004

Panel A: Public Acquisitions (N = 31)					
Holding Returns CAR Range	**Cash Offers (N = 20)**		**Share Offers (N = 11)**		***t*-statistic for difference[a]**
	CAR (%)	***t*-statistic**	**CAR (%)**	***t*-statistic**	
Day -30 to Day -2	4.8274	0.8025	2.3282	0.7252	0.4152
Day -1 to Day 1	2.6987**	2.6255	0.7801	0.5119	1.0315
Day +2 to Day 30	0.2650	0.9189	-0.0051	-0.8823	0.0355
Day -5 to Day 5	4.8201	1.5158	-0.0795	0.6438	1.0695
Day -10 to Day 10	1.7119	1.3390	-1.7318	-0.6895	0.5421
Day -20 to Day 20	4.4184	1.5544	3.3803	0.8172	0.1176
Day -30 to Day 30	7.7911	1.0230	3.1032	0.7959	0.4051
Panel B: Private Acquisitions (N = 94)					
Holding Returns CAR Range	**Cash Offers (N = 79)**		**Share Offers (N = 15)**		***t*-statistic for difference[a]**
	CAR (%)	***t*-statistic**	**CAR (%)**	***t*-statistic**	
Day -30 to Day -2	0.2014	0.5866	-6.9019	-0.4703	2.2822**
Day -1 to Day 1	1.0237**	2.3344	1.9813	1.1474	0.7705
Day +2 to Day 30	-0.3379	0.9549	-0.5743	0.7530	0.0544
Day -5 to Day 5	-0.2724	1.4990	-0.2886	0.9079	0.0191
Day -10 to Day 10	0.5013	1.2684	-1.4270	-0.7092	0.6965
Day -20 to Day 20	0.0524	1.0357	-2.9911	-0.6170	0.7638
Day -30 to Day 30	0.8872	0.9301	-5.4949	-0.6629	1.6704*

Notes: Returns are in percentage. H_0: cumulative mean daily abnormal returns in the interval, $CAR_{T1,T2} = 0$.
[a] H_0: $CAR_{T1,T2}$ between cash offers and share offers is equal to zero, i.e., $\mu_1 = \mu_2$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.9

Cumulative abnormal returns for acquiring firms by target status and methods of payment, 2000-2004



Notes: Percentage cumulative returns of acquiring firms by target status and methods of payment. Public acquisitions: cash offers (N = 20) and share offers (N = 11), and private acquisitions: cash offers (N = 79) and share offers (N = 15)

4.4.8 Regression Analysis

The previous results analyse returns to acquirers using univariate comparisons. In this section, multivariate regression is used to test the determinants of the acquirer's returns. Table 4.14 presents the results of regressing the acquiring firm's CARs on factors that may impact the CARs. The dependent variable is the three-day (day -1 to day 1) CAR for acquirers. This study assumes that the acquiring firm returns is a function of several bid characteristics, including relative size of target to acquirer, target size, industry relatedness, target status, and method of payment. These regression equations are as follows:

Model 1:

$$CAR_{T1,T2} = \alpha_0 + \beta_1 \text{LnRS} + \beta_2 \text{LnTarS} + \beta_3(\text{IR}) + \beta_4(\text{TS}) + \beta_5(\text{MP}) + \beta_6(\text{MA}) + \varepsilon$$

Model 2:

$$CAR_{T1,T2} = \alpha_0 + \beta_1 \text{LnRS} + \beta_2 \text{LnTarS} + \beta_3(\text{IR}) + \beta_4(\text{TS}) + \beta_5(\text{MP}) + \beta_6(\text{MA}) + \beta_7 \text{LnRS*cash} + \beta_8 \text{LnRS*public acquisitions} + \beta_9 \text{Cash offer dummy*public acquisition dummy} + \varepsilon$$

Where,

RS = relative size, measured by the log of the ratio of target size divided by the acquirer size. The relative size of the target proxy that the larger the target relative to the acquirer, the greater the effect of the acquisition on the acquirer and market reaction,

TarS = target size measured by the log of the asset value in the acquisition,

IR = industry relatedness dummy, where IR = 1 if the acquirer and target are in the same industry and 0 otherwise,

TS = target status dummy, where TS = 1 if target is private (unlisted) and 0 otherwise,

MP = method of payment dummy, where MP = 1 if acquirer use cash settlement and 0 otherwise, and

MA = multiples acquisitions dummy, where MA =1 if acquirer have multiple acquisitions and 0 otherwise,

RS*Cash = is an interaction variable representing the method of payment with the relative size variable to capture the interaction between the relative importance of the acquisition and any information convey by the acquirer's method of payment choice.

RS*Public acquisitions = is an interaction variable representing the public acquisitions with the relative size variable to capture the interaction effect between the relative importance of the acquisition and any information conveyed by the acquisition of public target.

Cash offer dummy* public acquisition dummy = is an interaction variable representing public acquisitions with the cash method of payment variable to capture the interaction effect between the relative importance of the acquisition and any information conveyed by the public acquisition and cash payment choice.

Each of the explanatory variables has been suggested by theory as a determinant of the market's perception of an acquisition (Sudarsanam, Holl and Salami, 1996; and Fuller *at al.*, 2002). The relative size of the target may be considered as a proxy for several effects (e.g. source of synergy). Asquith, Bruner and Mullins (1983) suggest that the larger the target relative to acquirer, the greater the effect of the acquisition on the acquirer, and the more likely a greater market reaction. Chang (1998) and

Fuller *et al.* (2002) report a negative relationship between the use of share settlement and the returns to acquirers of public firms, but a positive of private target. This study followed Fuller *et al.* (2002, p.786) by interacting the method of payment with the relative size variable to capture the interaction between relative importance of the acquisition and any information conveyed by the acquirer's method of payment choice. This study uses two models on the determinants of acquirer's return. Similar to the univariate analysis in relation to the method of payment, our multivariate analysis also use the all cash and all share offer sample (excluding the mixed offers)

The results of the regression are reported in Table 4.14. The results confirm the overall significance of model (*F*-statistic) but the model's explanatory power is generally low (adjusted *R*-squared range from 11% to 23%). In general the regression results of model 1 are consistent with the results of the univariate analysis. The coefficient estimates confirm the importance of relative size, target status and method of payment. The positive intercept confirm that on average acquiring firms gain. The coefficients for the relative size, public acquisition dummy and cash offers dummy variables are positive and significant. This suggests the acquirer returns associated with cash deals are more positive than share deals, and that the market views larger deals even more favourably. The result also shows that the returns to acquirer's tend to be positive when acquiring a public target.

In Model 2, three interaction variables were added to model 1. The result shows that the *F*-statistic and adjusted *R*-squared is improved. Similar to the model 1 results, the significance coefficient estimates confirm the importance of relative size, target status and method of payment. The interaction variable of method of payment with

the relative size is to capture the interaction between the relative importance of the acquisition and any information conveyed by the acquirer's method of payment choice. While the coefficients on the interaction between public acquisition and the relative size variable and cash offers dummy and public acquisition dummy variable is insignificant. The positive coefficients on relative size and cash offers are consistent with the Moeller *et al.* (2004) and Fuller *et al.* (2002), however the positive coefficient on the target public status is contrary to they result.

Table 4.14

Ordinary least squares (OLS) regression analyses of cumulative abnormal returns ($CAR_{day\text{-}1,1}$)of acquiring firms, 2000-2004

Independent Variable	**Model 1**	**Prob.**	**Model 2**	**Prob.**
Intercept	0.0910*	0.0604	0.0755*	0.0974
Log of Relative Size (RS)	0.0103**	0.0221	0.0196***	0.0000
Log of Target size (TarS)	-0.0064	0.1226	-0.0035	0.3670
D_1 (IR), dummy 1 = industry relatedness	-0.0124	0.2848	-0.0117	0.2819
D_2 TS, dummy 1= public acquisitions	0.0415***	0.0054	0.0491***	0.0031
D_3 MP, dummy 1= cash offers	0.0266*	0.0689	0.0568***	0.0004
D_4 MA, dummy 1= multiple acquisitions	-0.0063	0.6093	-0.0094	0.4134
Interaction variable (RS*cash dummy)			0.0013***	0.0001
Interaction variable (RS*public acquisitions dummy)			-0.0002	0.3420
Interaction variable (cash offer dummy*public acquisitions dummy)			0.0002	0.8815
F-statistics		3.6091***		4.9797***
N		123		123
Adjusted R-squared		0.1137		0.2270

Notes: Regression on acquiring firm returns in day -1 to 1 on the variables. The LnRS is log of the relative size is the natural log of target deal value divided by acquirer market value as the month before the announcement date of the acquisition. LnTarS is log of asset value in the acquisition. The first (D_1) dummy variable is defined as whether the target and acquirer are in the same industry. Second (D_2) dummy variable is defined as whether the acquisition is a private acquisition or a public acquisition. Third (D_3) dummy variable is defined as whether the target is acquired with cash offers or with share offers. Cash offers include cash only and share offers include common shares only. Fourth (D_4) dummy variable is defines as whether single acquisition or multiples acquisitions. Finally, interaction variables of the relative size with cash, relative size with public acquisitions, and cash offer dummy with public acquisition dummy are included.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

4.5 LONG-TERM POST-ACQUISITION RETURNS

In the previous section we examined the acquiring and target firms return based on price reaction to the acquisition announcement. It is a short-term analysis that focuses on whether share prices are fully adjusting to the likely gains from acquisitions. A few studies examine the assumption of market efficiency by measuring long-term abnormal returns after the acquisition. The findings are mixed. This section extends our study to examine the long-term post-acquisition returns to the acquiring firms. Studies on long-term performance are aimed at evaluating the extent to which the short-term gains or losses realized during the announcement are later maintained. Section 4.5.1 discusses the general performance of the acquiring firms using the cumulative market-adjusted abnormal returns (CMAR) and buy-and-hold abnormal returns (BHAR). Section 4.5.2 discusses the factors and firm characteristics on long-term post-acquisition performance. The long-term analysis consists of 124 completed acquisitions. Table 4.15 categorizes the sample by method of payment and target status.

Previously we mentioned that the majority of the short-term studies find that the acquiring firm returns are non-positive. In their widely cited paper, Jensen and Ruback (1983) conclude that "acquiring firms do not lose". But several studies, such as Asquith (1983), Bradley, Desai and Kim (1983), Isa and Lim (1993), Moellller, Stegemoller and Stulz (2004) and Draper and Pudyal (2006) find evidence of positive returns. Fuller, Netter and Stegemoller (2002) examines acquirer share performance around the announcement and finds that acquirers experience significant negative returns when buying public target, while realizing positive gains

when acquiring private target. On the various findings on short-term studies, Antoniou, Petmezas and Zhao (2007, p.2) states that:

> "*This, however, could be a rather premature conclusion as short-run event study conclusions rely on the assumption of market efficiency. It is possible that stock prices may temporarily deviate from their fundamental values due to investor systematic over- or under-reaction to acquisition announcements. In such a case, it is not obvious that short-run studies can distinguish between real economic gains from market inefficiencies/investor psychology.*"

In light of the above, it is essential that this study also be extended to cover the long-term analysis in order to have a more accurate conclusion about the performance of the acquiring firms. If the long-term result is consistent with the short-term findings, the short-term findings would be well supported.

Table 4.15

Distribution of sample by method of payment for public and private acquisitions, 2000-2004

Method of Payment	**Public Acquisitions**	**Private Acquisitions**	**Total**	**Percentage (%)**
Cash offers	20	70	90	73%
Share offers	11	14	25	20%
Mixed offers	1	8	9	7%
Total	32	92	124	
Percentage (%)	26%	74%	100%	100%

Source: Own calculation based on KLSE Investor Digest and Bursa Malaysia website information.

Notes: Cash (share) offers are when 100% of the consideration is cash (share); and the mixed offers are combination of cash and share payment. Public acquisitions refer to target is a listed (public) firm and private acquisitions refer to target is an unlisted (private) firm.

4.5.1 General Performance of Acquiring Firm

Table 4.16(a) and 4.16(b) reports the cumulative raw return (CRR), the cumulative market-adjusted abnormal return (CMAR) and the buy-and-hold abnormal return (BHAR) for the acquiring firms for a period of thirty six months following the acquisition announcement. The results show that the monthly cumulative raw returns are insignificant for the entire observation period. While the monthly CMAR show insignificant results in the first 20 months and show significant returns from month 21 to month 36. The BHAR shows that the monthly returns are insignificant for the first 26 months, but become significant from month 27 to month 36.

The CMAR for acquiring firm is -15.1306% (*t*-statistic = -2.6987 and significant at the 1% level) and BHAR is -13.9243% (*t*-statistic = -2.1022 and significant at the 5% level) in the 36 months following the acquisition. The result supports the H_a9 hypothesis that there is a significant abnormal return for acquiring firm in long-run. The negative long-term performance of the acquiring firms found in this study is consistent with many of the previous studies in other countries discussed earlier, one of which that is particularly close in the size of the CMAR is Agrawal *et al.* (1992), who finds a negative cumulative abnormal return of -13.85% for acquiring firms in the three-year period after merger. Loughran and Vijh (1997) find a significant five-year BHAR -15.90% post-merger abnormal returns for the acquiring firms.

Table 4.16(a)

Long-term post-acquisition performance of acquiring firms, 2000-2004

	1. Cumulative raw returns (N = 124)		2. Cumulative market-adjusted abnormal returns (N = 124)		3. Buy-and-hold abnormal returns (N = 124)	
Month	**CRR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**
1	0.1016	0.0960	0.4120	0.3908	0.7669	0.4362
2	0.7543	0.4888	0.6279	0.4464	0.4632	0.2287
3	-0.7956	-0.4532	-0.3665	-0.2469	-0.6973	-0.3416
4	-1.5801	-0.8020	-0.7293	-0.4382	-1.0695	-0.5122
5	-2.6578	-1.2308	-2.1093	-1.1852	-2.2171	-0.9880
6	-3.1174	-1.2550	-2.8513	-1.4273	-2.8943	-1.1814
7	-3.7668	-1.3375	-3.5769	-1.5966	-3.5273	-1.3365
8	-4.3100	-1.4615	-3.6245	-1.5382	-3.5017	-1.2073
9	-2.8747	-0.8429	-3.2057	-1.1790	-2.5955	-0.9172
10	-3.5152	-0.9131	-3.7130	-1.2319	-2.7145	-0.8858
11	-3.0263	-0.7800	-4.0566	-1.3297	-2.4755	-0.7343
12	-1.2089	-0.2983	-4.6793	-1.4174	-2.1626	-0.5865
13	-1.1684	-0.2822	-4.9834	-1.4380	-2.7131	-0.7346
14	-0.0546	-0.0125	-4.3726	-1.1750	-2.5048	-0.6770
15	0.2745	0.0612	-4.6696	-1.2256	-2.5407	-0.6699
16	1.7697	0.3807	-4.3727	-1.0772	-1.4536	-0.3755
17	2.1634	0.4602	-5.0923	-1.2089	-1.7528	-0.5224
18	2.5838	0.5553	-5.1494	-1.1999	-2.3031	-0.5485
19	2.3236	0.4838	-6.2616	-1.4061	-2.9159	-0.6354
20	2.7729	0.5619	-6.8136	-1.5017	-3.9437	-0.7021
21	2.6365	0.5310	-8.1951*	-1.7856	-5.1107	-0.7915
22	3.2581	0.6684	-8.6047*	-1.8641	-6.4393	-0.9063
23	2.9081	0.5990	-9.3744**	-2.0062	-7.0538	-0.9354
24	3.8589	0.7976	-8.6626*	-1.9003	-6.1051	-1.1996
25	3.9992	0.8395	-9.4428**	-2.0705	-7.4298	-1.4652
26	4.7095	0.9806	-8.9892*	-1.9291	-7.9717	-1.6188
27	3.4609	0.6973	-10.6433**	-2.2297	-9.1230*	-1.7990
28	2.7346	0.5249	-11.5814**	-2.3204	-10.0062**	-1.9862
29	3.2226	0.5995	-11.9763**	-2.3188	-10.0638**	-1.9599
30	3.9560	0.7292	-12.0537**	-2.3198	-10.9074**	-2.1076
31	3.0263	0.5478	-14.0215***	-2.6811	-12.4909**	-2.3404
32	3.5399	0.6361	-14.1716***	-2.6765	-12.2095**	-2.1571
33	3.9742	0.6880	-14.6172***	-2.6937	-12.3553**	-2.0190
34	4.6170	0.7968	-14.2445***	-2.6024	-13.1135**	-2.1213
35	3.8942	0.6677	-15.4746***	-2.7871	-14.1462**	-2.2343
36	4.9420	0.8386	-15.1306***	-2.6987	-13.9243**	-2.1022

Notes: This table reports acquiring firm cumulative abnormal returns (in percentage) in the long-run. Abnormal returns are computed as: (1) average monthly cumulative returns [$R_{i,t} = (P_{i,t} - P_{i,t-1})/P_{i,t-1}$]; (2) the cumulative market-adjusted abnormal returns (KLCI adjustment); (3) the buy-and-hold abnormal returns (KLCI adjustment). The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$.

***, ** and * indicate significant at the 1% level, 5% level and 10% level, respectively.

To examine the models sensitivity, the last column of the Table 4.16(b) reports the test of the difference between the CMAR and BHAR. The *t*-statistic does not support the H_a10 hypothesis that there is a significant difference in CMAR and BHAR. The *t*-statistic for the sub-periods leads to conclusion that the long-term post-acquisition performance using CMAR and BHAR are not statistically different. This finding is consistent with Brown and Warner (1985) that the estimation of excess return is generally insensitive to the model selected.

Figure 4.10 shows the long-term trend of the cumulative raw returns (CRR), the cumulative market-adjusted abnormal return (CMAR) and the buy-and-hold abnormal returns (BHAR). The figure shows that CRR takes a negative trend in the first year, but turns positive beginning from the second and going into the third year. For CMAR there is a similar negative trend in the first year, but it remains negative in year two, and becomes even more negative in year three. This trend is similarly shown by the BHAR. Therefore, there seems to be no substantial difference between the two methods of return adjustment.

Table 4.16(b)

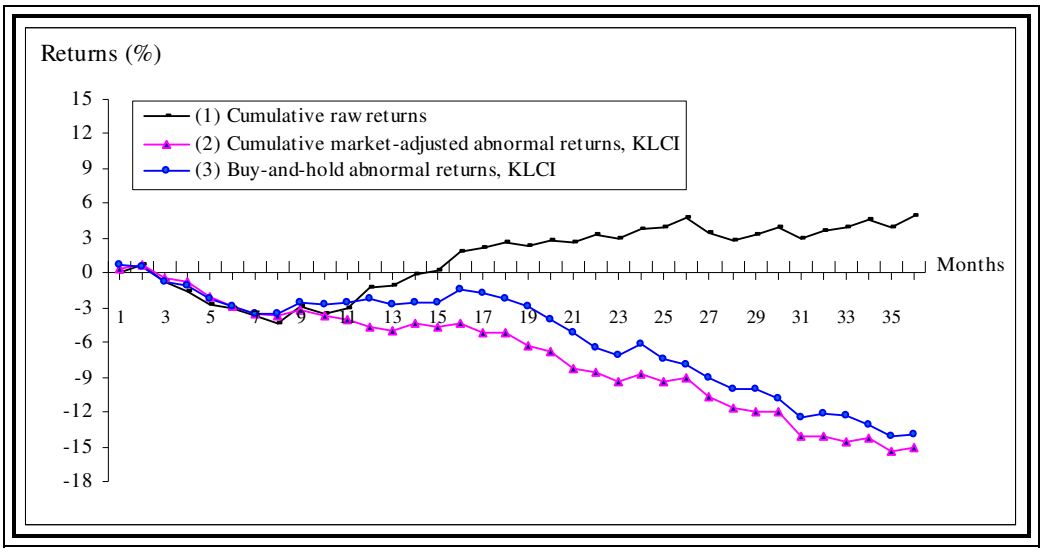
Long-term post-acquisition performance of acquiring firms: cumulative market-adjusted abnormal returns (CMAR) versus buy-and-hold abnormal returns (BHAR), 2000-2004

Interval	**CRR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**	***t*-stat for difference[a]**
Month 1 to 12	-1.2089	-0.2083	-4.6793	-1.4174	-2.1626	-0.5861	-1.0877
Month 13 to 24	5.0677	1.4503	-3.9833	-1.2353	-3.9425	-1.2144	-0.0717
Month 25 to 36	1.0831	0.3207	-6.4679*	-1.8988	-7.8192*	-1.8698	0.5029

Notes: The returns are expressed in percentage. The columns 'CRR' represent cumulative raw returns; 'CMAR' represent cumulative market-adjusted returns; and 'BHAR' represent buy-and-hold abnormal returns. H_0: cumulative abnormal returns in the interval of T_1 to $T_2 = 0$. H_0: there is no significant difference in CMAR and BHAR to acquirers in the interval of T_1 to T_2, i.e., $\mu_1 = \mu_2$.
***, ** and * indicate significant at the 1% level, 5% level and 10% level, respectively.
[a] *t*-statistic for difference of CMAR and BHAR.

Figure 4.10

Post-acquisition performance of Malaysian acquiring firm, 2000 – 2004



Notes: This graph shows the long-term post-acquisition returns of acquiring firms every month for 36 months after the acquisition. To measure abnormal performance, it uses the common technique of computing cumulative abnormal returns: (1) cumulative raw returns are the average monthly cumulative returns for the acquiring firms compute as $R_{i,t} = (P_{i,t} - P_{i,t-1})/P_{i,t-1}$; (2) cumulative market-adjusted abnormal returns (KLCI adjustment); and (3) buy-and-hold abnormal returns (KLCI adjustment).

4.5.2 Determinants of Acquiring Firms Long-term Performance

Previous studies suggest various factors may influence the long-term post-acquisition performance. These factors include: (i) target status; (ii) method of payment; (iii) overlapping acquisitions; (iv) firm size; and (v) book-to-market ratio. Again, both the market-adjusted model and buy-and-hold approach are used in this analysis. Relevant results are discussed in the following section.

4.5.2.1 Target Status – Public Acquisitions versus Private Acquisitions

Investors' expectation on the gains to acquisition may be different when a firm acquires a public listed target as opposed to acquiring an unlisted private firm. Table 4.17(a) presents results of the abnormal returns analysis for acquiring firms according to the target status (public versus private target acquisition). The result

shows that the monthly CMAR for acquirer of public targets are insignificant for the 36 months. While for those acquirers of private targets significant negative returns occur from the month of 21 to 36. The *t*-statistic in Table 4.17(b) shows that the CMAR of acquirers is significantly different between acquirers of public and private acquisition in year three.

The second part of Table 4.17(a) shows the BHAR for acquirer of public and private targets. This study finds that the results using BHAR are qualitatively similar to those of CMAR. The monthly BHAR for acquirer of public acquisitions are insignificant for the 36 months. While the monthly BHAR for acquirer of private acquisitions is significant from the month of 26 to 36. The *t*-statistic in Table 4.17(b) also shows that the BHAR of acquirers is significantly different between acquirers of public and private acquisition in year three.

This study finds that the abnormal returns for public acquisitions are insignificant while the private acquisitions show negative returns. The result does not support the $H_a11.1$ that there is a significant abnormal return for acquirers of public target, while support the $H_a11.2$ that there is a significant abnormal returns for acquirers of unlisted private target. Our result is in contrast with previous studies, notably Conn *et al.* (2005) on UK acquiring firms. In their study, Conn *et al.* (2005) using the buy-and-hold approach, find a significant negative abnormal return of -19.78% for public acquirers and insignificant -4.78% for private acquirers over a three year period after acquisition.

Table 4.17(a)

Long-term post-acquisition performance of acquiring firms by target status, 2000-2004

Month	Public Acquisitions (N = 32)		Private Acquisitions (N = 92)		Public Acquisitions (N = 32)		Private Acquisitions (N = 92)	
	CMAR (%)	*t*-statistic	CMAR (%)	*t*-statistic	BHAR (%)	*t*-statistic	BHAR (%)	*t*-statistic
1	0.7390	0.4520	0.2983	0.2282	0.3168	0.0625	0.9235	0.5745
2	2.0992	0.8933	0.1162	0.0678	0.3292	0.0614	0.5098	0.2526
3	-1.0050	-0.3695	-0.1444	-0.0815	-3.5463	-0.7006	0.2936	0.1382
4	-3.2110	-1.0092	0.1339	0.0686	-5.3416	-1.1357	0.4164	0.1821
5	-3.2534	-0.9171	-1.5442	-0.7596	-5.1906	-0.9740	-1.1829	-0.4927
6	-2.4569	-0.5808	-2.8212	-1.2559	-3.9988	-0.6512	-2.5101	-0.9875
7	-3.8530	-0.8138	-3.3137	-1.3063	-6.1783	-1.0163	-2.6052	-0.9057
8	-3.3823	-0.7259	-3.5416	-1.2932	-5.5818	-0.9081	-2.7782	-0.8443
9	-6.0062	-1.1095	-2.0644	-0.6556	-3.6766	-0.5457	-2.2195	-0.7316
10	-7.3756	-1.1804	-2.2719	-0.6614	-4.4562	-0.6194	-2.1087	-0.6370
11	-6.7416	-1.1022	-2.9554	-0.8374	-5.8378	-0.8114	-1.3060	-0.3428
12	-8.1924	-1.3272	-3.2902	-0.8424	-6.7109	-0.9194	-0.5806	-0.1355
13	-8.6801	-1.2880	-3.5304	-0.8722	-7.4566	-1.0671	-1.0632	-0.2442
14	-5.2573	-0.6360	-3.8977	-0.9446	-4.9807	-0.6974	-1.6437	-0.3784
15	-2.8907	-0.3422	-5.1211	-1.2116	-2.3501	-0.3122	-2.6069	-0.5905
16	-2.8045	-0.3236	-4.7509	-1.0368	-0.4575	-0.0505	-1.8000	-0.4293
17	-1.6454	-0.1711	-6.1240	-1.3305	0.8409	0.0914	-2.6550	-0.6090
18	-1.8857	-0.1951	-6.1174	-1.2956	1.1791	0.1208	-3.5143	-0.7712
19	-3.9440	-0.3743	-6.9005	-1.4434	0.8067	0.0742	-4.2107	-0.8542
20	-2.2710	-0.2328	-8.2105	-1.6088	-1.2959	-0.1189	-4.8457	-0.9578
21	-4.3054	-0.4361	-9.3696*	-1.8134	-3.0142	-0.2468	-5.8248	-1.0973
22	-3.3921	-0.3556	-10.2298*	-1.9382	-3.8693	-0.3256	-7.3148	-1.4039
23	-3.9711	-0.4129	-11.0624**	-2.0675	-3.2862	-0.2649	-8.2959	-1.5873
24	-5.8004	-0.6181	-9.7672*	-1.8274	-5.0674	-0.4113	-6.4472	-1.1865
25	-4.5565	-0.4826	-11.0494**	-2.0918	-3.6945	-0.2979	-8.6613	-1.6109
26	-2.6396	-0.2851	-12.5633**	-2.2960	1.3179	0.1132	-11.0342**	-2.0860
27	-4.0082	-0.4196	-14.0918**	-2.5154	1.1883	0.0975	-12.5224**	-2.3226
28	-4.0438	-0.4270	-15.3275***	-2.5786	-0.4203	-0.0366	-13.1664**	-2.3882
29	-2.2007	-0.2424	-16.4602***	-2.6347	1.4297	0.1235	-13.8529**	-2.4594
30	-1.3444	-0.1477	-16.8453***	-2.6710	1.7241	0.1499	-15.0716***	-2.6418
31	-3.1906	-0.3503	-18.5394***	-2.9112	-0.2528	-0.0218	-16.5702***	-2.7847
32	-4.3123	-0.4660	-18.3656***	-2.8466	-0.0856	-0.0068	-16.2508***	-2.6041
33	-3.5921	-0.3639	-19.2042***	-2.9518	-2.3965	-0.2179	-17.9593***	-2.7579
34	-3.9393	-0.4009	-18.5887***	-2.8214	1.5028	0.1096	-18.0403***	-2.6470
35	-4.4264	-0.4696	-19.6199***	-2.9267	0.3452	0.0257	-18.9185***	-2.6568
36	-5.8584	-0.6207	-18.6772***	-2.7445	-2.5647	-0.1888	-17.7534**	-2.3412

Notes: This table reports the monthly cumulative market-adjusted abnormal returns and buy-and-hold abnormal returns for acquirer by target status. Public acquisitions refer to acquiring a listed target and private acquisitions refer to acquiring an unlisted target. The returns are expressed in percentage. The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$.

***, ** and * indicate significant at the 1% level, 5% level and 10% level, respectively.

Table 4.17(b)

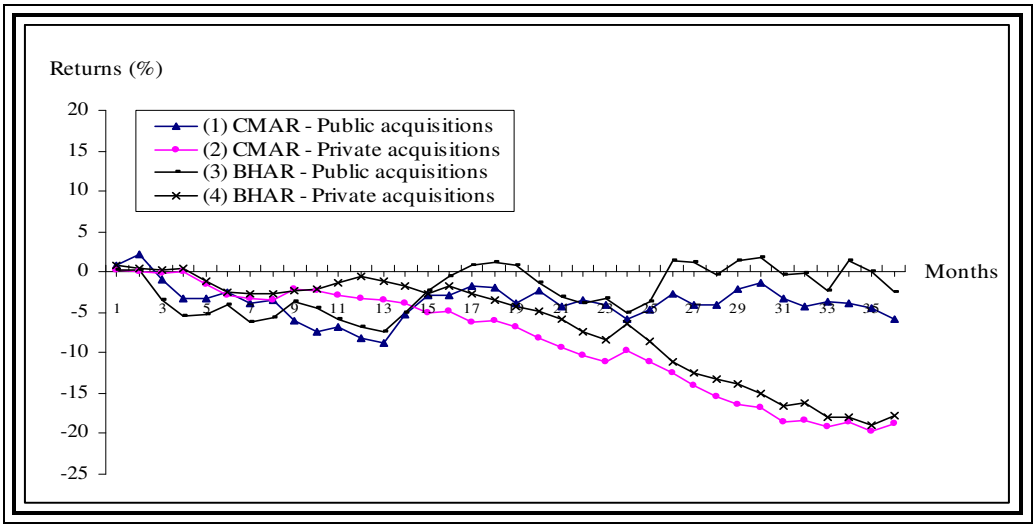
Long-term post-acquisition performance of acquiring firms: public acquisitions versus private acquisitions, 2000-2004

	Public Acquisitions (N = 32)		Private Acquisitions (N = 92)		*t*-stat for difference
Panel A: Cumulative market-adjusted abnormal returns (CMAR)					
Interval	**CMAR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	***t*-statistic**
Month 1 to 12	-8.1924	-1.3272	-3.2902	-0.8581	0.7243
Month 13 to 24	2.3920	0.3464	-6.4770*	-1.7588	-0.9012
Month 25 to 36	-0.0580	-0.0131	-8.9100**	-2.1008	-1.6659*
Panel B: Buy-and-hold abnormal returns (BHAR)					
Interval	**CMAR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	***t*-statistic**
Month 1 to 12	-6.7109	-0.9194	-0.5806	-0.1355	0.6711
Month 13 to 24	1.6435	0.2080	-5.8666*	-1.7204	-1.1464
Month 25 to 36	2.5027	0.4198	-11.3061**	-2.1878	-1.7220*

Notes: Acquisitions are classified according to the target status. Public acquisitions refer to acquiring a listed target and private acquisitions are acquiring an unlisted private target firms. Panel A reports the market-adjusted cumulative abnormal returns (CMAR) and Panel B reports the buy-and-hold abnormal returns (BHAR), with the adjustment of KLCI market index, in year 1, year 2 and year 3 post-acquisitions. The returns are expressed in percentage. H_0: cumulative abnormal returns in the interval of T_1 to $T_2 = 0$. H_0: there is no significant difference between acquirers of public listed target and unlisted private target in the interval of T_1 to T_2, i.e., $\mu_1 = \mu_2$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.11

Cumulative market-adjusted abnormal returns (CMAR) and buy-and-hold abnormal returns (BHAR) for acquiring firms by return adjustment method and target status, 2000-2004



Notes: This graph shows the long-term post-acquisition returns of acquiring firms every month for 36 months after the acquisition. To measure abnormal performance, it uses the common technique of computing cumulative abnormal returns: (1) and (2) is cumulative market-adjusted abnormal returns (CMAR); and (3) and (4) is buy-and-hold abnormal returns (BHAR). The full samples are divided based on the target status, public acquisitions refer to acquiring a listed target and private acquisitions refer to acquiring an unlisted target.

Figure 4.11 presents the post-acquisition CMAR and BHAR for public- and private-target acquiring firms. The figure reinforces the observation in Table 4.17(a). The figure shows very clearly that the CMAR and BHAR are negative for private-target acquiring firms and increases gradually. While for public-target acquiring firm returns are also negative, more so in the first 12 months, and then the returns increase somewhat but remain in the negative territory but close to zero until month 36.

The results of this study seem to be inconsistent with the competition hypothesis and managerial hypothesis, both of which argue that private acquisitions should result in greater returns than public acquisitions. However, the results seem to be in support of the bargaining power hypothesis proposed by Draper and Paudyal (2006), which states that private firms have greater bargaining power by virtue of being closely held and having a high proportion of manager ownership. As such private firms will only enter into acquisition agreements when it gives them maximum benefits, and to some extent at the expense of the acquiring firms. This explanation is particularly compelling in view of the fact that the private targets in Malaysia are mostly family-owned and very closely held. Another possible explanation for the more negative abnormal returns for acquirers of private targets is that for the year following the acquisition the market overestimates the efficiency gains from acquisitions or the market perceives that the integration costs involved in the acquisition are higher than the gains from operating synergies.

For the full sample (see Table 4.16) we obtain statistically negative monthly returns in year three. This finding suggests that acquiring firm lose over a three year period after the acquisition. In the short-term analysis, we found that acquirers earn positive and significant abnormal return when they acquire public targets, and insignificant negative returns in the pre- and post-acquisition period when they acquire private targets. In this section we find that the long-term returns to these public target acquirers experience negative abnormal returns, but insignificant at the 10% level. This evidence is therefore inconsistent with the short-term results. For acquirers of private target, we found that for the second and third year (see Table 4.17(b)) post-acquisition performances are statistically negative, which is consistent with our short-term results and also with Antoniou, Petmezas and Zhao (2007).

4.5.2.2 Method of Payment

Studies on short-term price reaction to acquisitions indicate that different method of payment results in different behaviour of abnormal returns around the announcement date. Many previous studies, and also this study find that cash settlement leads to greater returns compared to share settlement. But the question is whether the superiority of cash settlement over share settlement persists in the long run. In this section long run analysis is made on the method of payment sub-samples.

Myers and Majluf's (1984) signalling hypothesis suggests that acquiring firms will use share settlement in acquisition if they believe their shares are overvalued and use cash settlement if they believe their shares are undervalued. As a result, the market will view share offers less favourably than cash offers (Fuller *et al.,* 2002). Consistent with this theory, Loughran and Vijh (1997) and Gregory (1997) found

that the long-term post-acquisition returns for acquirers in cash offers are higher in comparison with share offers, while Moeller, Schlingemann and Stulz (2004) find that acquirers in share offers have insignificant returns over the three-year post-acquisition.

Use of share settlement for private acquisitions has further implications due to the particular ownership structure of private firms. If the acquisition transaction uses a share settlement, it may create a large block of shareholder who can effectively monitor the acquiring firm's management decisions at the post-acquisition period; hence the acquirers' share value should be negatively affected. On the other hand, according to the information hypothesis, acquiring a private target should bring a positive impact on the acquiring share prices due to the revelation of favourable private information. The positive impact may even be able to offset or even subsume the negative impact of accepting the block of majority shareholders of the private targets.

Table 4.18(a) presents acquiring firm monthly cumulative abnormal returns by methods of payment and target status. Panel A reports the cumulative market-adjusted abnormal returns (CMAR) and Panel B reports the buy-and-hold abnormal returns (BHAR). The results shows that public acquisitions, private acquisitions and all acquisitions using cash settlement is indeed the preferred mode compared with share settlement. Table 4.18(a) also shows that cash settlement leads to higher abnormal returns compared to share settlement in all the monthly returns. Nevertheless, both types of payment lead to negative performance. This observation is true for both CMAR and BHAR.

Table 4.18(b) present further analysis of acquirer's CMAR and BHAR for the first, second and three years after the acquisition. After controlling for the method of payment, it is found that for public acquisition, cash offer yields positive returns while share offer yields negative returns. But both are not significant at the 10% level. The differences in the CARs are also not significant. For acquirers of private targets, our result shows significant underperformance irrespective of the methods of payment. In year three of the post-acquisition period, private acquisitions in cash offers yield CMAR of -9.6461% (significant at the 5% level) and BHAR -11.8757% (significant at the 1% level). While private acquisitions using share offers yield a CMAR of negative -8.9219% (significant at the 10% level), and BHAR is -9.9194% (significant at the 10% level). The results for all cash and all share acquisitions are similar to the private acquisition where both methods of payment yields negative returns, with no significant difference between the two.

The evidence does not support $H_a12.3$ (and $H_a12.6$) that there is a significance difference in the acquirers of public targets (acquirers of private target) abnormal return between cash offer and share offer in the long-run. The last column of the *t*-statistic in Table 4.18(b) reports that method of payment between cash offer and share offer is insignificant different in each categories of public acquisition, private acquisition and all acquisition, except for year one in the BHAR in the category of all acquisition is significant at the 10% level.

Figure 4.12(a) and 4.12(b) presents the post-acquisition CMAR and BHAR for acquiring firm by target status and method of payment. The figure 4.12(a) reinforces the observation in Panel A of Table 4.18(a). The figure shows very clearly that CMAR in cash offers is positive for public acquisition; while share offers are negative. This trend is similar to the BHAR shown in figure 4.12(b). While for private acquisitions, the figure 4.12(a) and 4.12(b) show that the CMAR and BHAR are negative irrespective the methods of payment with share offers showing greater negative returns.

Our result suggests that for the all acquisitions (public and private acquisitions); the three-year post-acquisition performance is negative, irrespective of the methods of payment. In the short-term analysis, we found that acquiring firm have positive abnormal returns when using cash settlement and negative abnormal returns when using share settlement. When focusing on target status and methods of payment, for public acquisitions we obtain insignificant negative returns in share acquirers, while insignificant positive returns in cash acquirers. Our results on public acquisition in the long-term performance are inconsistent with our short-term results. In the short-term analysis, we found acquiring firm have positive abnormal returns, irrespective of the methods of payment. For acquisitions of private target, acquirers earn significant negative returns over a three year period after the acquisition. This result remains unchanged after controlling for the methods of payment. The long-term analysis in private acquisition is inconsistent with the previous short-term results. The short-term result indicates that acquirers in cash offer have positive returns and share offer have negative returns.

Table 4.18(a)

Long-term post-acquisition performance of acquiring firms by method of payment and target status, 2000-2004

Panel A: Cumulative market-adjusted abnormal returns (CMAR) for acquiring firms by method of payment and target status

	Public Acquisitions		Private Acquisitions		All acquisitions	
Month	Cash offers (N = 20)	Share offers (N = 11)	Cash offers (N = 70)	Share offers (N = 14)	Cash offers (N = 90)	Share offers (N = 25)
1	1.0553	1.7149	0.3935	0.1292	0.3184	0.6919
2	3.3569	-1.3412	1.2139	-1.9428	1.9290	-1.7293
3	1.2936	-2.9493	0.5632	-0.0275	0.7306	-1.7095
4	-0.8695	-3.7731	1.3876	-2.0624	0.3669	-2.2990
5	1.7673	-4.5435	-1.0518	-0.2577	-0.9444	-2.6612
6	1.4154	-2.8688	-2.4199	-1.0858	-2.0867	-2.3109
7	0.6704	-6.0257	-3.4053	0.5223	-3.0187	-2.3937
8	1.1661	-5.9666	-3.7084	0.6579	-3.1443	-2.2852
9	0.7235	-8.6775	-1.5434	-0.0307	-1.5587	-3.6914
10	0.7271	-11.2081	0.0802	-0.9020	-0.2951	-5.1515
11	2.8975	-12.4677	-0.7254	-1.3377	-0.4394	-5.8918
12	1.9901	-11.4364	-1.1905	-1.6137	-1.4151	-5.7039
13	3.0412	-13.6263	-1.8354	-0.4410	-1.6831	-5.8388
14	4.9306	-12.8474	-2.4926	-0.2756	-1.1077	-5.4557
15	7.6424	-12.1718	-3.4517	-2.3819	-1.1234	-6.5748
16	9.3980	-14.2180*	-2.2429	-4.9339	0.2068	-8.9474
17	9.2122	-12.1990	-3.8320	-5.9320	-1.0704	-8.2297
18	9.8427	-14.1696*	-4.9962	-4.4207	-1.8358	-7.9539
19	11.7184	-15.6399	-4.3964	-6.8849	-0.7326	-10.0654
20	11.0255	-13.6899	-5.8265	-8.9423	-2.0035	-10.7009
21	9.6004	-14.9009	-7.9204	-8.2104	-4.1802	-10.6584
22	8.0997	-12.3727	-8.5220	-9.6624	-4.9760	-10.3755
23	7.8043	-13.5763	-8.5793	-13.2447	-5.0826	-13.1137*
24	5.6431	-13.3189	-8.1043	-12.6987	-5.3254	-12.6701
25	4.8805	-13.5698	-8.5706	-14.9452	-5.8530	-13.7266
26	4.4614	-12.6601	-10.3029	-15.9809	-7.3136	-13.2009
27	3.1908	-11.1413	-10.7781*	-18.4479	-8.5452	-14.5638
28	4.7541	-13.0814	-10.7211*	-20.3977*	-8.1766	-16.5102**
29	5.9761	-10.0767	-12.6527*	-21.8809*	-9.4558	-16.4009
30	6.8216	-9.0290	-12.1704*	-24.1016**	-8.8983	-18.1066*
31	6.8610	-11.9768	-14.9388**	-22.8133*	-11.0790*	-18.3214*
32	5.1425	-12.3723	-14.3339**	-24.1430*	-10.9604*	-19.3197**
33	5.7509	-10.5963	-15.9479**	-23.4761*	-12.1038*	-18.2592*
34	6.7743	-12.4672	-15.1881**	-24.1260*	-11.2882*	-19.6144*
35	5.0432	-13.0446	-17.3008**	-24.4100**	-13.3201**	-19.3573*
36	6.0163	-13.7469	-17.7504**	-21.6206*	-13.4684**	-19.3831**

Notes: This table reports the monthly cumulative market-adjusted abnormal returns (CMAR) for acquirer by target status and method of payment. The returns are expressed in percentage. All acquisitions refer to public acquisitions and private acquisition in cash and share offers. To test whether the acquirer long-term post-acquisition performance is effected by the target status, samples are divided based on the target status. Public acquisition refers to acquiring a listed target and private acquisitions refer to acquiring an unlisted target. Cash offer refers to purely cash settlement and share offer is purely share settlement in an acquisition. The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

continued on next page

Table 4.18(a) (continued)

Long-term post-acquisition performance of acquiring firms by method of payment and target status, 2000-2004

Panel B: Buy-and-hold abnormal returns (BHAR) for acquiring firms by method of payment and target status

	Public Acquisitions		Private Acquisitions		All acquisitions	
Month	Cash offers (N = 20)	Share offers (N = 11)	Cash offers (N = 70)	Share offers (N = 14)	Cash offers (N = 90)	Share offers (N = 25)
1	1.6786	-2.5559	0.2983	1.1339	0.2717	0.1472
2	2.8141	-2.7655	1.1700	-0.5258	1.6464	-1.3206
3	-0.1354	-6.7266	0.5734	1.1077	0.4159	-2.3811
4	-0.9557	-7.5361	1.2901	-1.6679	-0.0009	-3.7502
5	-1.2782	-9.7675	-0.7496	-1.6396	-1.0955	-4.8463
6	0.1849	-10.1202	-2.0963	-2.7425	-2.1715	-5.3604
7	-1.5464	-11.1955	-2.6834	-0.8396	-3.0974	-5.1595
8	-1.0512	-10.8650	-3.0967	-2.4124	-3.4190	-6.4666
9	0.0310	-9.8797	-1.0380	-2.6936	-0.6893	-7.8202
10	0.0680	-12.6894*	0.0440	-4.0440	0.0493	-8.2085*
11	-0.1667	-12.5661*	1.0941	-4.4619	0.3695	-8.6468*
12	0.4377	-11.0512	1.7863	-4.8883	0.6187	-8.5913
13	2.3495	-9.7766	1.4224	-6.1302	-0.0851	-7.7467
14	2.5955	-8.8170	0.1397	-5.0278	-0.6769	-6.6627
15	4.2717	-9.8428	-0.5327	-6.3356	-0.3539	-7.1399
16	5.3648	-11.3447*	-1.0827	-6.0079	0.3501	-7.9663
17	5.5183	-9.4748	-1.7415	-4.8491	-0.1282	-6.2635
18	6.7320	-10.0486	-4.0193	-3.8311	-1.6301	-6.4033
19	8.9239	-13.3099*	-3.1698	-3.9529	0.1844	-9.3433
20	8.3832	-13.9925*	-3.6648	-6.7049	-1.0635	-10.7424*
21	7.3246	-15.0741**	-5.4807	-7.1654	-2.7159	-12.0250
22	6.4439	-14.9569**	-6.6434	-8.1912	-4.1098	-12.1468*
23	8.2719	-14.8942***	-6.7631	-10.6244	-3.6524	-14.0989*
24	6.1958	-13.5458***	-6.1903	-10.1411	-3.6276	-14.1992*
25	6.9689	-12.9617	-7.2757	-13.8904	-4.3285	-15.8687**
26	8.7053	-10.7162	-8.8624	-15.1777	-5.2277	-15.0277**
27	6.6704	-9.1684	-9.2083	-18.0449*	-5.9230	-15.7721**
28	5.2437	-8.9448	-8.7115	-21.3033**	-5.8242	-17.8706**
29	5.5489	-8.6714	-10.3394	-19.9244*	-7.0522	-16.3954**
30	6.2155	-9.0409	-11.3443*	-21.1894**	-7.7112	-16.9716**
31	6.9928	-12.0796	-13.1938*	-21.6223**	-8.9687	-16.5076**
32	6.3057	-12.0014	-13.2134*	-22.4909*	-8.5470	-16.4693*
33	6.6322	-11.4014	-15.3391**	-21.4757**	-11.7451*	-17.0191*
34	7.1132	-15.2014	-16.0858**	-20.9584*	-10.3644	-18.0999*
35	7.7348	-14.3961	-17.4506**	-20.1969*	-12.1172	-19.3837**
36	7.3783	-13.9115	-18.0660**	-19.9105*	-12.6778*	-19.8817**

Notes: This table reports the monthly buy-and-hold abnormal returns (BHAR) for acquirer by target status and method of payment. The returns are expressed in percentage. All acquisitions refer to public acquisitions and private acquisitions in cash and share offers. To test whether the acquirer long-term post-acquisition performance is effected by the target status, samples are divided based on the target status. Public acquisition refers to acquiring a listed target and private acquisitions refer to acquiring an unlisted target. Cash offer refers to purely cash settlement and share offer is purely share settlement in an acquisition. The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$. ***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.18(b)

Long-term post-acquisition performance of acquiring firms by method of payment and target status: cash offers versus share offers, 2000-2004

Panel A: Cumulative market-adjusted abnormal returns (CMAR)

Interval	Cash offers	*t*-statistic	Share offers	*t*-statistic	*t*-statistic for difference
Public acquisitions: cash offers (N = 20) and share offers (N = 11)					
Month 1 to 12	1.9901	0.2336	-11.4364	-1.1977	-1.0492
Month 13 to 24	3.6530	0.5018	-1.8825	-0.3146	-0.6325
Month 25 to 36	0.3732	0.0697	-0.4280	-0.0347	-0.0538
Private acquisitions: cash offers (N = 70) and share offers (N = 14)					
Month 1 to 12	-1.1905	-0.2569	-1.6137	-0.2011	-0.0457
Month 13 to 24	-6.9137*	-1.7883	-11.0850	-1.1381	-0.4031
Month 25 to 36	-9.6461**	-2.5191	-8.9219*	-1.8355	-0.0111
All acquisitions: cash offers (N = 90) and share offers (N = 25)					
Month 1 to 12	-1.4151	-0.3624	-5.7039	-0.8986	-0.5755
Month 13 to 24	-3.9103*	-1.6963	-6.9662*	-1.8011	-0.4124
Month 25 to 36	-8.1430**	-2.5882	-6.7130*	-1.7740	-0.1131

Panel B: Buy-and-hold abnormal returns (BHAR)

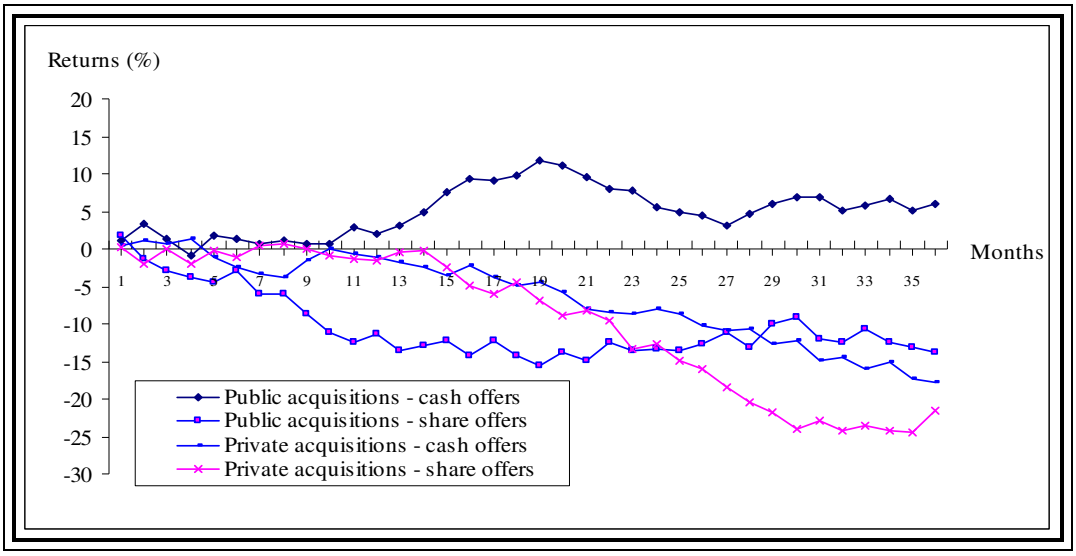
Interval	Cash offers	*t*-statistic	Share offers	*t*-statistic	*t*-statistic for difference
Public acquisitions: cash offers (N = 20) and share offers (N = 11)					
Month 1 to 12	0.4377	0.0374	-11.0512	-1.3902	0.8117
Month 13 to 24	5.7582	0.5031	-2.4946	-0.2658	0.5158
Month 25 to 36	1.1825	0.2037	-0.3657	-0.0260	0.0940
Private acquisitions: cash offers (N = 70) and share offers (N = 14)					
Month 1 to 12	1.7863	0.3493	-4.8883	-0.6568	0.7392
Month 13 to 24	-7.9766**	-2.2427	-5.2528	-0.6279	-0.2944
Month 25 to 36	-11.8757***	-2.7302	-9.9194*	-1.6851	-0.3168
All acquisitions: cash offers and (N = 90) and share offers (N = 25)					
Month 1 to 12	0.6187	0.1331	-8.5913*	-1.6954	1.6717*
Month 13 to 24	-4.2463	-1.1330	-5.6080	-0.8509	0.1955
Month 25 to 36	-9.0502**	-2.4817	-5.6824*	-1.7365	1.5654

Notes: Panel A reports the cumulative market-adjusted abnormal returns (CMAR) and Panel B reports buy-and-hold returns (BHAR) for acquirers over the periods of first, second and third year. Acquirer returns is based on method of payment and target status. H_0: cumulative abnormal returns in the interval of T_1 to $T_2 = 0$. H_0: there is no significant difference in acquirers return between cash offer and share offer in the interval of T_1 to T_2, i.e., $\mu_1 = \mu_2$.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.12(a)

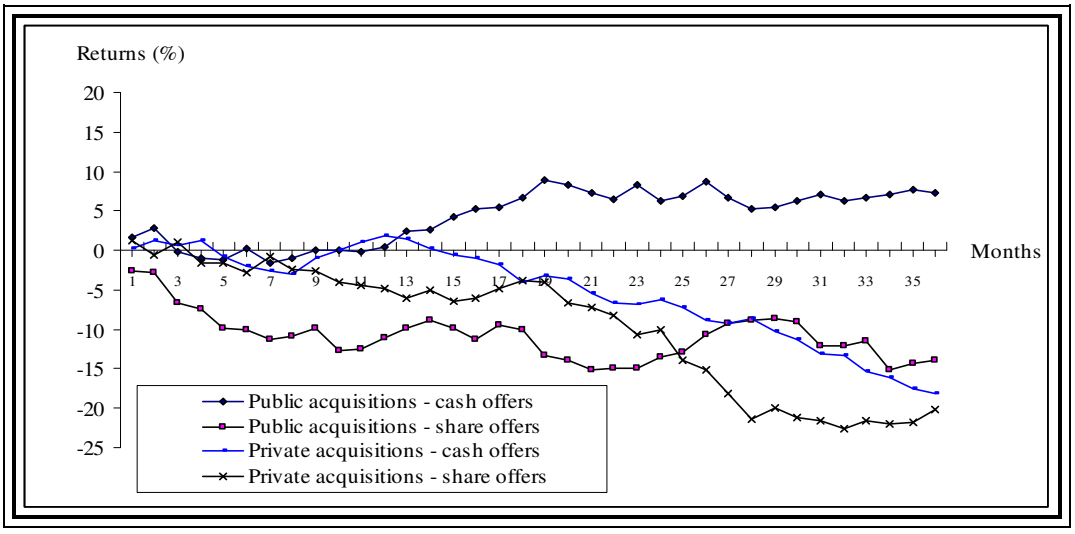
Post-acquisition performance of acquiring firms: cumulative market-adjusted abnormal return (CMAR) by method of payment and target status, 2000-2004



Notes: This graph shows the long-term post-acquisition in cumulative market-adjusted abnormal returns (CMAR) of acquiring firms every month for 36 months after the acquisition. The full samples are divided based on the target status, public acquisition refers to acquiring a listed target and private acquisition refers to acquiring an unlisted target. Cash offer refers to purely cash settlement and share offer is purely share settlement in an acquisition.

Figure 4.12(b)

Post-acquisition performance of acquiring firms: buy-and-hold abnormal return (BHAR) by method of payment and target status, 2000-2004



Notes: This graph shows the long-term post-acquisition in buy-and-hold abnormal returns (BHAR) of acquiring firms every month for 36 months after the acquisition. The full samples are divided based on the target status, public acquisition refers to acquiring a listed target and private acquisition refers to acquiring an unlisted target. Cash offer refers to purely cash settlement and share offer is purely share settlement in an acquisition.

4.5.2.3 Adjustment of Overlapping Acquisitions

Tuch and O'Sullivan (2007) note that a problem in assessing the long-term performance of acquiring firms is the overlapping events (for example, multiple acquisitions within the three-year period). To address this issue we remove the overlapping acquisition and recalculate the CMAR and the BHAR. In our sample, 19 firms acquire more than one target during any three-year period. Table 4.19(a) and 4.19(b) report the result after removing the overlapping firms. The result in Table 4.19(a) shows that the CMAR of non-overlapping acquisitions is significant for several months in the observation period, which is similar to the entire sample. This trend is similarly shown by the BHAR. Therefore, there seems to be no substantial difference between the two methods of return adjustment. Figure 4.13 presents the post-acquisition CMAR and BHAR for all acquisition and non-overlapping acquisition. The figure shows that the CMAR and BHAR for entire sample and non-overlapping are quite similar.

Our results are consistent with Loughran and Vijh (1997). They have addressed this issue by removing the overlapping acquisition from the sample and re-estimates BHAR. Loughran and Vijh (1997) find that the removal of overlapping acquisitions does not change the statistical significance of previous findings for the entire sample. The last column of *t*-statistic in the Table 4.19(b) reports that for each year in the CMAR and BHAR is insignificant. The evidence does not support the H_a13 that there is a significant difference of CMAR (or BHAR) between acquirer in single acquisition and acquirers in multiple acquisitions.

Table 4.19(a)

Adjustment of overlapping acquisitions and acquiring firms returns, 2000-2004

	All Acquisitions (N = 124)		Non-overlapping Acquisitions (N =105)		All Acquisitions (N = 124)		Non-overlapping Acquisitions (N =105)	
Month	**CMAR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**
1	0.4120	0.3908	0.5930	0.4886	0.7669	0.4362	0.4081	0.2000
2	0.6279	0.4464	1.2545	0.7662	0.4632	0.2287	0.4945	0.2115
3	-0.3665	-0.2469	0.0532	0.0309	-0.6973	-0.3416	-0.8949	-0.3818
4	-0.7293	-0.4382	-0.9857	-0.5063	-1.0695	-0.5122	-2.0519	-0.8603
5	-2.1093	-1.1852	-2.7709	-1.3417	-2.2171	-0.9880	-3.6099	-1.4213
6	-2.8513	-1.4273	-4.3264*	-1.9108	-2.8943	-1.1814	-5.3056**	-1.9912
7	-3.5769	-1.5966	-4.7926*	-1.8718	-3.5273	-1.3365	-5.5044*	-1.8707
8	-3.6245	-1.5382	-4.9299*	-1.8153	-3.5017	-1.2073	-5.5606*	-1.7124
9	-3.2057	-1.1790	-4.5024	-1.4395	-2.5955	-0.9172	-4.7678	-1.5590
10	-3.7130	-1.2319	-5.1744	-1.4945	-2.7145	-0.8858	-4.8286	-1.4240
11	-4.0566	-1.3297	-5.7935*	-1.6517	-2.4755	-0.7343	-4.7058	-1.2495
12	-4.6793	-1.4174	-6.0905	-1.5968	-2.1626	-0.5865	-4.4513	-1.0834
13	-4.9834	-1.4380	-6.4029	-1.5920	-2.7131	-0.7346	-4.9905	-1.2097
14	-4.3726	-1.1750	-5.3779	-1.2425	-2.5048	-0.6770	-4.2556	-1.0269
15	-4.6696	-1.2256	-5.5710	-1.2573	-2.5407	-0.6699	-4.0921	-0.9582
16	-4.3727	-1.0772	-5.4156	-1.1475	-1.4536	-0.3755	-3.1210	-0.7197
17	-5.0923	-1.2089	-6.1136	-1.2481	-1.7528	-0.5224	-3.4178	-0.7651
18	-5.1494	-1.1999	-5.8244	-1.1697	-2.3031	-0.5485	-3.7018	-0.7880
19	-6.2616	-1.4061	-6.1221	-1.1933	-2.9159	-0.6354	-3.1742	-0.6197
20	-6.8136	-1.5017	-6.5605	-1.2520	-3.9437	-0.7021	-4.0398	-0.7651
21	-8.1951*	-1.7856	-7.8502	-1.4828	-5.1107	-0.7915	-4.9914	-0.8767
22	-8.6047*	-1.8641	-8.2688	-1.5535	-6.4393	-0.9063	-6.4247	-1.1531
23	-9.3744**	-2.0062	-9.2231*	-1.7116	-7.0538	-0.9354	-7.1100	-1.2585
24	-8.6626*	-1.9003	-8.2910	-1.5638	-6.1051	-1.1996	-5.9925	-1.0752
25	-9.4428**	-2.0705	-9.3331*	-1.7671	-7.4298	-1.4652	-7.1499	-1.2466
26	-8.9892*	-1.9291	-8.9908*	-1.6670	-7.9717	-1.6188	-7.9529	-1.4395
27	-10.6433**	-2.2297	-10.8673**	-1.9829	-9.1230*	-1.7990	-9.6129*	-1.7167
28	-11.5814**	-2.3204	-12.1516**	-2.1339	10.0062**	-1.9862	-10.9939**	-1.9960
29	-11.9763**	-2.3188	-12.7840**	-2.1841	-10.0638**	-1.9599	-11.5339**	-2.0709
30	-12.0537**	-2.3198	-12.5770**	-2.1412	-10.9074**	-2.1076	-12.1127**	-2.1555
31	-14.0215***	-2.6811	-13.7914**	-2.3342	-12.4909**	-2.3404	-12.5375**	-2.1578
32	-14.1716***	-2.6765	-14.0501**	-2.3552	-12.2095**	-2.1571	-12.6540**	-2.0864
33	-14.6172***	-2.6937	-15.0206**	-2.4785	-12.3553**	-2.0190	-14.0468**	-2.2116
34	-14.2445***	-2.6024	-14.4275**	-2.3568	-13.1135**	-2.1213	-14.1560**	-2.1184
35	-15.4746***	-2.7871	-15.2499**	-2.4527	-14.1462**	-2.2343	-14.4078**	-2.0742
36	-15.1306***	-2.6987	-14.9464**	-2.3771	-13.9243**	-2.1022	-14.1410*	-1.9252

Notes: This table reports the monthly cumulative market-adjusted abnormal returns (CMAR) and buy-and-hold abnormal returns (BHAR). Overlapping firms are removed (i.e., if an acquisition occurred within three years of a previously included acquisition by the same firm, then the latter observation is excluded). The final sample consists of 105 acquiring firms with only one acquisition between 2000 and 2004.The returns are expressed in percentage. The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.19(b)

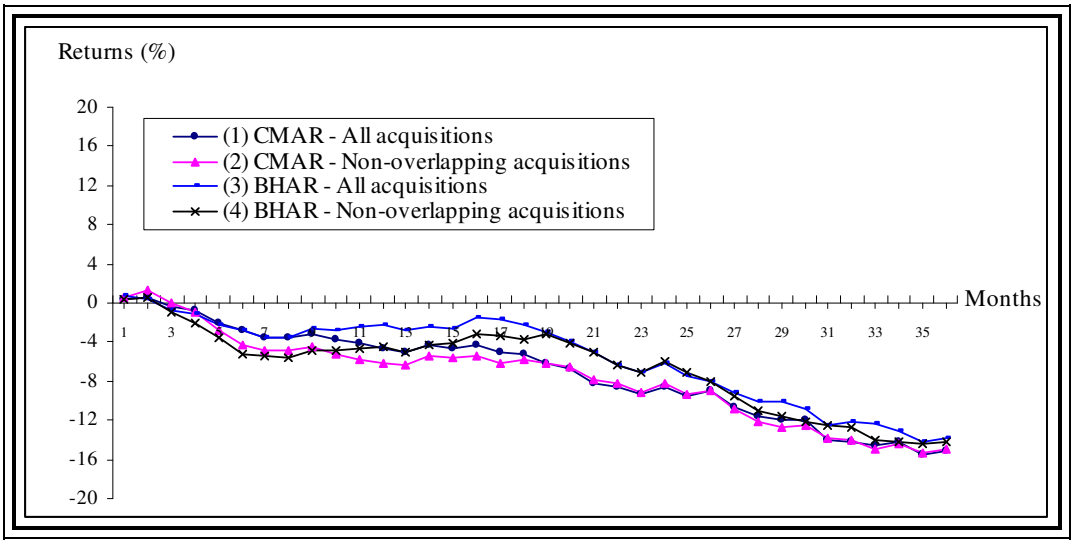
Long-term post-acquisitions performance of acquiring firms: acquirer returns (full sample) versus acquirer returns in non-overlapping acquisition, 2000-2004

	***All Acquisitions* (N = 124)**		***Non-overlapping Acquisitions* (N = 105)**		
Panel A: Cumulative market-adjusted abnormal returns (CMAR)					
Interval	CMAR (%)	*t*-statistic	CMAR (%)	*t*-statistic	*t*-statistic for difference
Month 1 to 12	-4.6793	-1.4174	-6.0905	-1.5968	-0.2798
Month 13 to 24	-3.9833	-1.2353	-2.2004	-0.6060	0.3676
Month 25 to 36	-6.4679*	-1.8988	-6.6555*	-1.7789	-0.0307
Panel B: Buy-and-hold abnormal returns (BHAR)					
Interval	BHAR (%)	*t*-statistic	BHAR (%)	*t*-statistic	*t*-statistic for difference
Month 1 to 12	-2.1626	-0.5865	-4.4513	-1.0834	-0.4146
Month 13 to 24	-1.7789	-1.2144	-1.5412	-0.4434	0.5098
Month 25 to 36	-7.8192*	-1.8698	-8.1485*	-1.7638	0.1738

Notes: If a firm makes multiple acquisitions within three years, the cases were considered 'overlapping acquisition', then the latter observation excluded. The final sample consists of 105 acquiring firms with only one acquisition between 2000 and 2004. The *t*-statistic for difference is the test of difference of overlapping acquisitions firm returns and non-overlapping firm returns. H_0: cumulative abnormal returns in the interval of T_1 to $T_2 = 0$. H_0: there is no significant difference returns between acquirers in single acquisitions and acquirers in multiple acquisition in the interval of T_1 to T_2, i.e., $\mu_1 = \mu_2$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.13

Long-term post-acquisition performance: acquirer returns (full sample) versus acquirer returns in non-overlapping, 2000-2004



Notes: This graph presents acquirer returns of non-overlapping (N = 105) that are subset of the full sample of 124 and satisfy the following criteria. Overlapping cases are removed, if a firm makes multiple acquisitions within three years, then the latter observation is excluded. Starting on the month after the acquisition date, cumulative market-adjusted abnormal return (CMAR) and a buy-and-hold abnormal return (BHAR) is calculated for both the acquirer return (full sample) and acquirer return of non-overlapping for up to thirty-six months after the acquisition.

4.5.2.4 Firm size, Growth Firms and Value Firms

Previous studies indicate that firm size and book-to-market ratios of the acquiring firms may influence the long-term performance. Moeller, Schlingemann and Stulz (2004) find that the magnitude of post acquisition performance is negatively related to firm size. They provide evidence that managers of large firms pay more for acquisitions. Demsetz and Lehn (1985) find that managers in small firms have more firm ownership than manager in large firms, thereby reduce agency costs.

The book-to-market ratio contains information that can be used to identify "value" or "growth" firms. A company with high book-to-market ratio is called a "value" company while a company with low ratio is called a "growth" company. Rau and Vermaelen (1998, p.226) states that '*companies with high book-to-market ratios (or 'value' stock), managers, directors, and large shareholders will be more prudent before approving a major transaction that may well determine the survival of the company. Because these acquisitions are not motivated by hubris, they should create shareholders value rather than destroy it'*.

This section presents the acquiring firms' post-acquisition performance based on their size and book-to-market ratios. This section's analysis is based on the non-overlapping sample. To analyse the size effect the sample is divided into two groups based on the market value of the acquiring firms. The market value is calculated using the end-of-year market price prior to the year of acquisition. It also divides the sample into two subsamples based on the firms' book-to-market ratio. The ratio is calculated by dividing net tangible assets with market value.

Table 4.20 reports the distribution of the acquiring firms' size (market value) and book-to-market ratio. Due to data non-availability, only 102 of the 105 acquiring firms with non-overlapping acquisition are included for analysis. As reported in Table 4.20, the median of acquirer market value is RM310,780 million and the book-to-market ratio is 0.88, respectively. The samples are split into small and large firms based on the median value.

Table 4.20

Acquiring firm size (market value) and book-to-market ratio (BTM), 2000-2004

Characteristics	**Market value**	**Book-to-market ratio**
Small size / low BTM ratio[a]	49	49
Large size / high BTM ratio[b]	53	53
Total	***102***	***102***
	(Millions RM)	**Percentage (%)**
Average	905,703	1.1483
Maximum	25,019,359	5.1381
Minimum	12,154	0.0663
Median	310,780	0.8832

Notes: Market value is share price multiplied by the number of outstanding shares on Bloomberg Database.
[a] Small size refers to the small acquiring firm size (market value) and low BTM (book-to-market) ratio that below the median value. [b] Large size refers to large acquiring firm size (market value) and high BTM (book-to-market) ratio that above the median value.

1. Acquiring Firm Size

To analyze the effect of firm size on long-term abnormal returns, the sample is divided into two size groups based on their financial year end market value in the beginning of the announcement year. Table 4.21(a) presents returns analysis based on firm size. The results show that both CMAR and BHAR suggest that the post-acquisition underperformance may be limited to small size acquirers as opposed to larger acquirers. Table 4.21(a) shows that none of the CMAR and BHAR for large acquirers is significant. For small size acquirers there are several months with significant negative returns; in CMAR these are month 5 to 6, months 10 to 11, and

months 17 to 36, while for BHAR these are month 6, months 8 to 10, month 18 and months 21 to 36.

Table 4.21(b) presents acquirer returns in CMAR and BHAR and the corresponding *t*-statistic for first, second and third year by firm size. It can be observed that for the second and third year, the CMAR and BHAR for small size acquirers are negatively significant, while for large size acquirer none is significant. The last column of *t*-statistic report that there is insignificant difference in small size and large size acquirers for each year in CMAR and BHAR, except in year one in CMAR. Figure 4.14 presents the post-acquisition CMAR and BHAR in small and large size acquirers. The figure reinforces the observation in Table 4.21(a). The figure shows very clearly that the CMAR and BHAR are negative for small size acquirers, while those for large size acquirers are positive and very close to zero.

Our finding is inconsistent with Moeller, Schlingemann and Stulz (2004) as they find that the magnitude of post-merger performance is negatively related to firm size. However, it is consistent with Malatesta's (1983) who found that small firm acquirers suffer significant losses in the post-merger period. The results support the H_a14 hypothesis that there is a positive relation between post-performance and acquiring firm's size. This finding indicates that small size acquirers underperform compared to large size acquirers. One possible explanation is that acquirers with a small market-value tend to have a low share price reflecting a recent slow growth in cash flow earnings as well as signalling low expected future growth to the market. Relying on such past performance, the market may doubt the acquisition plan and the future prospects of the firm.

Bhardway and Brooks (1993) and Kim and Burnie (2002) examine the size effect in the context of economic cycle. They find that small firms have greater abnormal returns than large firms during the expansion period. Hull, Mazachek and Ockree (1998) examine the size effect on firm returns listed on NYSE, AMEX, and NASDAQ during the common stock offering announcement period from 1979-1989. They find small firms experience returns that are significantly more negative than large firms during the announcement periods. The results held for all three stock exchanges, and as share returns are generally negative during announcement periods, and small stocks are 'more negative', this further supports that small firms have more extreme reactions to general market trends.

Rutledge, Zhang and Karim (2008) examine the China market and find that small firms have a stronger reaction to the direction of the market than large firms. This might imply that during bull markets (expansion periods) small firms have greater returns as compared to large firms, and vice versa. Rutledge, Zhang and Karim (2008) also find that small firms have significantly greater negative abnormal returns than large firms during the 2001-2003 bear market time period. The difference in the behaviour of small firms and large firms in relation to market cycle is consistent with the view that small firms is risky than large firms.

In sum, our result suggests that small size acquirers have significant negative returns, while large size acquirers have insignificant positive returns three year after acquisition. This long-term results is consistent with the previous short-term results.

Table 4.21(a)

Long-term post-acquisition performance of acquiring firms by firm size, 2000-2004

	Small size acquirers (N = 49)		Large size acquirers (N = 53)		Small size acquirers (N = 49)		Large size acquirers (N = 53)	
Month	**CMAR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**
1	-0.3332	-0.1938	1.4800	0.8197	-0.1711	-0.0650	0.2469	0.0850
2	0.6005	0.2357	3.3139	1.7016	0.0158	0.0054	2.2427	0.6892
3	-1.4497	-0.5420	3.2688	1.4348	-1.5280	-0.5407	1.7572	0.5387
4	-3.5973	-1.2311	3.2733	1.2846	-3.3078	-1.1437	0.9963	0.3040
5	-6.0500**	-1.9895	3.1483	1.2116	-4.9128	-1.6372	0.5947	0.1646
6	-6.1764*	-1.7818	0.7203	0.2453	-6.2290*	-1.8294	-1.4865	-0.4344
7	-5.3567	-1.3212	-1.2254	-0.3721	-5.0159	-1.2506	-2.9545	-0.7915
8	-7.0221	-1.5922	0.1129	0.0355	-7.4238*	-1.8547	-1.8793	-0.4602
9	-7.0513	-1.4647	2.5526	0.6542	-8.1101**	-2.1489	1.5402	0.3531
10	-8.3174*	-1.7188	4.5916	0.9985	-8.0030*	-1.9304	0.9599	0.2012
11	-9.3663*	-1.8571	3.8512	0.8464	-7.0076	-1.4292	1.2076	0.2335
12	-9.0228	-1.6152	3.8920	0.8365	-6.1725	-1.0836	1.5958	0.3041
13	-8.2520	-1.4051	2.5273	0.5243	-4.7439	-0.7954	0.5434	0.1028
14	-9.6581	-1.5871	4.1183	0.8540	-6.6660	-1.0810	2.1114	0.4092
15	-9.7184	-1.6125	3.6437	0.7078	-6.9978	-1.1223	1.7257	0.3061
16	-9.5598	-1.5130	4.2309	0.7500	-7.7920	-1.5152	2.0055	0.3172
17	-10.7437*	-1.6488	2.6866	0.4796	-8.1800	-1.5193	1.5456	0.2357
18	-11.6968*	-1.7265	3.2688	0.5480	-9.8852*	-1.7583	2.5330	0.3690
19	-12.3483*	-1.8343	4.9696	0.7961	-8.8908	-1.3228	3.6714	0.5570
20	-14.1895**	-2.0231	5.6552	0.8934	-9.7296	-1.4500	4.9698	0.6765
21	-15.9922**	-2.2075	4.5500	0.7038	-11.6636*	-1.6548	4.6532	0.5681
22	-16.2080**	-2.2842	4.0868	0.6101	-13.4303**	-1.9637	4.8317	0.5811
23	-17.6899**	-2.4876	4.2359	0.6180	-14.2858**	-2.0664	4.5850	0.5575
24	-16.7604**	-2.4227	4.2020	0.6017	-12.6310*	-1.7726	5.4671	0.6646
25	-17.9509***	-2.6581	4.2948	0.6078	-17.1013***	-2.5996	5.9313	0.7118
26	-18.2148***	-2.6663	4.5076	0.6172	-17.2847***	-2.6661	6.8182	0.8481
27	-20.0331***	-2.8529	3.4524	0.4502	-18.5340***	-2.7763	5.4779	0.6873
28	-21.6977***	-2.9759	3.0505	0.3906	-17.5351***	-2.5972	5.7205	0.7175
29	-23.5241***	-3.2732	2.3810	0.2923	-19.8589***	-3.0426	5.2631	0.6489
30	-22.1124***	-3.2575	1.3244	0.1516	-19.9262***	-3.0738	3.7158	0.4512
31	-23.4075***	-3.3316	-0.6664	-0.0746	-19.5827***	-2.8970	3.8294	0.4504
32	-24.0204***	-3.3790	-0.2759	-0.0308	-20.8379***	-3.0169	4.3490	0.5046
33	-25.2233***	-3.4345	-0.7690	-0.0853	-22.8964***	-3.0647	3.5107	0.4072
34	-24.0117***	-3.4492	-0.7256	-0.0765	-24.3406***	-3.2798	4.5176	0.4956
35	-26.0322***	-3.6282	0.2708	0.0283	-26.7489***	-3.4192	5.1286	0.5517
36	-26.4578***	-3.6176	-0.2064	-0.0214	-25.2296***	-2.9976	3.3270	0.3576

Notes: This table reports the monthly cumulative market-adjusted abnormal returns (CMAR) and buy-and-hold abnormal returns (BHAR) for acquirer by firm size. To analyse the size effect on the acquiring firm returns the non-overlapping sample is divided into two groups based on the market value of the acquiring firms. The market value is calculated based on acquiring firm financial year end value in the beginning of the announcement year (share price multiplied number of outstanding shares). Small (large) size acquirers refer to the small acquiring firm size that below (above) the median value. The returns are expressed in percentage. The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.21(b)

Long-term post-acquisitions performance of acquiring firms: small size versus large size, 2000-2004

Panel A: Cumulative market-adjusted abnormal returns (CMAR)

	Small size acquirers (N = 49)		Large size acquirers (N = 53)		*t*-statistic for difference
Interval	CMAR (%)	*t*-statistic	CMAR (%)	*t*-statistic	
Month 1 to 12	-9.0228	-1.6152	3.8920	0.8365	1.7764*
Month 13 to 24	-7.7375*	-1.8345	0.3100	0.0602	1.2129
Month 25 to 36	-9.6974**	-2.5060	-4.4084	-0.9054	0.6639

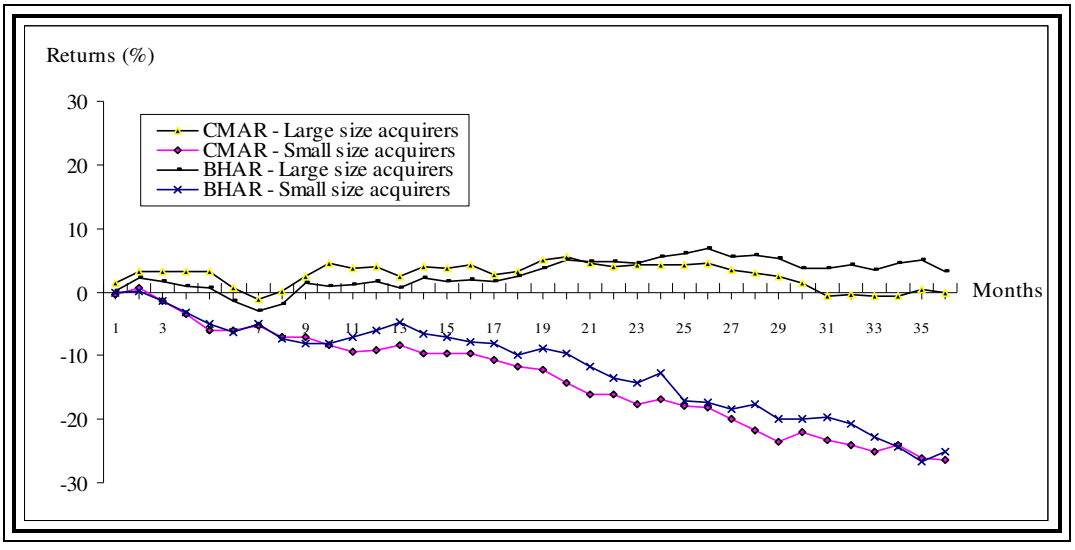
Panel B: buy-and-hold abnormal returns (BHAR)

	Small size acquirers (N = 49)		Large size acquirers (N = 53)		*t*-statistic for difference
Interval	BHAR (%)	*t*-statistic	BHAR (%)	*t*-statistic	
Month 1 to 12	-6.1725	-1.0836	1.5958	0.3041	1.0030
Month 13 to 24	-6.4585**	-2.0784	3.8713	0.6979	1.4282
Month 25 to 36	-12.5985***	-3.2713	-2.1401	-0.4215	1.5557

Notes: Acquiring firms are categorised as large and small depending on their size (market value). Acquiring firm's market value lower than the median value, is defined as 'small ', and if above median value is defined as 'large'. H_0: cumulative abnormal returns in the interval of T_1 to $T_2 = 0$.
** *, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.14

Long-term post-acquisition performance: small size versus large size acquirer returns, 2000-2004



Notes: This graph shows the long-term post-acquisition in cumulative market-adjusted abnormal returns (CMAR) buy-and-hold abnormal returns (BHAR) of acquiring firms every month for 36 months after the acquisition. The samples are divided based on the firm size (market value), acquiring firm's market value lower than the median value, is defined as 'small ', if above median value is defined as 'large'

2. Book-to-Market Ratio

To study the effects of book-to-market ratio of acquiring firm on long-term post-acquisition performance, the sample is divided into two group based on their financial year end value in the beginning of the announcement year. The book-to-market results in Table 4.22(a), suggests that underperformance may be limited to high book-to-market ratio (value company) acquirers. The result shows that the CMAR for low book-to-market ratio (growth company) is significant for the months of 1 and 3 only and none of the other months. While for BHAR for low book-to-market ratio acquirers none is significant. However, the high book-to-market acquirers show more months with significant negative abnormal returns. While for BHAR the significant negative returns are for months 5 to 10 only.

Table 4.22(b) shows that the CMAR for high book-to-market ratio acquirers earns significantly negative abnormal returns for two of the three sub-periods. For BHAR none of the sub-periods are significant. In contrast, low book-to-market ratio acquirers earn insignificant returns for all but one sub-period for both CMAR and BHAR. The evidence supports the H_a15 hypothesis, which states that there is negative relation between post-acquisition performance and acquiring firm book-to-market ratio. This might be due to the investors' belief that the high book-to-market ratio acquirers have less growth potential and, therefore, are pessimistic about the firm's earnings. In addition, when cross-checking is made between private acquisition and book-to-market ratio, it is found that the majority of the high book-to-market ratios are acquirers of private targets. Hence, the finding in this section is consistent with evidence on the target status in the previous section.

Figure 4.15 presents acquirers post-acquisition performance in CMAR and BHAR for the categories of low and high book-to-market ratio. The figure shows very clearly that the CMAR and BHAR are negative for high book-to-market ratio acquirers, while those for low book-to-market ratio acquirers have small positive returns. In the low book-to-market ratio acquirers, the figure shows that positive return occurs in months 1 to 26, and then negative returns from months 27 to 36. This trend is similar for BHAR; low book-to-market ratio acquirer has positive return from months 1 to 21, and then negative returns from months 22 to 36.

Our result is inconsistent with Rau and Vermaelen (1998), Sudarsanam and Mahate (2003) and Conn *et al.* (2005). They report long-term underperformance in acquisitions for acquirers with a low book-to-market ratio. This might be due to the investors assuming that acquiring firms with a low book-to-market ratio are more risky than those with a high book-to-market ratio. In contrast, Fama and French (1995) and Griffin and Lemmon ((2002) find that earnings of firms with high book-to-market ratio are considerably lower than those of firms with low book-to-market over the entire 11-year period.

Table 4.22(a)

Long-term post-acquisition performance of acquiring firms by book-to-market ratio, 2000-2004

	Low book-to-market ratio (N = 49)		High book-to-market ratio (N = 53)		Low book-to-market ratio (N = 49)		High book-to-market ratio (N = 53)	
Month	**CMAR (%)**	***t*-statistic**	**CMAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**	**BHAR (%)**	***t*-statistic**
1	3.6817*	1.8141	-2.3687*	-1.7108	2.7607	0.8768	-2.4952	-1.0721
2	5.7143**	2.5700	-1.6188	-0.7184	3.2415	1.1683	-0.9077	-0.2742
3	4.9362**	2.0181	-2.9914	-1.2109	2.8190	0.9806	-2.5097	-0.7996
4	4.4117	1.6045	-4.6498*	-1.7277	1.0023	0.3311	-3.3133	-1.0634
5	4.2002	1.4905	-6.6451**	-2.4991	2.2515	0.7364	-6.4445*	-1.8804
6	2.4062	0.7273	-7.1690**	-2.4107	-0.7344	-0.2290	-6.9243*	-1.9458
7	3.7729	1.0532	-9.1547***	-2.6147	0.3903	0.1152	-8.1083*	-1.9356
8	3.5605	0.8637	-9.3865***	-2.7680	-0.0128	-0.0036	-9.1494**	-2.1144
9	6.0504	1.3424	-9.4621**	-2.3715	1.7987	0.4621	-8.3490**	-1.9984
10	6.7879	1.3874	-9.5249**	-2.2166	1.4338	0.3613	-8.4411*	-1.7598
11	4.9338	1.0161	-9.5441**	-2.0837	0.6178	0.1488	-6.4623	-1.1369
12	4.7229	0.8776	-8.9679*	-1.8557	1.2566	0.2664	-5.8589	-0.9625
13	3.4479	0.6401	-8.2800	-1.5677	-1.3110	-0.3019	-3.0294	-0.4590
14	2.6857	0.4641	-7.5105	-1.4242	-0.6888	-0.1575	-4.0772	-0.6076
15	2.8826	0.4828	-8.1916	-1.5478	0.8737	0.2017	-6.2101	-0.8763
16	2.9200	0.4752	-7.5248	-1.2820	0.4122	0.0922	-6.3189	-0.9531
17	1.5824	0.2545	-8.8997	-1.4934	1.4610	0.3102	-8.1017	-1.1844
18	1.9782	0.3203	-9.5772	-1.4580	0.8898	0.1964	-8.3660	-1.1286
19	3.4238	0.5246	-9.9927	-1.5479	1.6851	0.3617	-7.0543	-0.8785
20	3.6836	0.5695	-11.2887	-1.6207	1.4054	0.2798	-6.8814	-0.8126
21	2.0652	0.3117	-12.5079*	-1.7310	-0.2507	-0.0494	-7.5919	-0.8098
22	1.0719	0.1513	-12.2048*	-1.7636	-0.7815	-0.1348	-8.7535	-0.9776
23	0.0661	0.0093	-12.6526*	-1.7733	-2.9780	-0.5366	-8.0063	-0.8767
24	0.4765	0.0927	-12.1008*	-1.7288	-1.6230	-0.2800	-6.5686	-0.7155
25	0.5692	0.0792	-13.3682*	-1.9309	-3.9034	-0.6682	-8.8453	-0.9966
26	0.5592	0.0772	-13.4424*	-1.8680	-3.0751	-0.5252	-9.0355	-1.0532
27	-0.8343	-0.1093	-14.8612**	-2.0203	-4.2103	-0.6797	-10.4802	-1.2388
28	-1.5329	-0.1888	-16.3108**	-2.2341	-2.3894	-0.3859	-10.9828	-1.2939
29	-3.2252	-0.3886	-17.4042**	-2.3325	-3.9817	-0.6294	-12.3064	-1.4693
30	-3.4766	-0.3933	-16.5536**	-2.3391	-4.4445	-0.6549	-13.3475*	-1.6553
31	-5.2758	-0.5797	-17.8753**	-2.4485	-4.4963	-0.6492	-12.6905	-1.5013
32	-5.6781	-0.6150	-17.7566**	-2.4451	-5.4715	-0.7820	-12.5595	-1.4462
33	-7.6569	-0.8212	-17.5332**	-2.3326	-6.1774	-0.8414	-12.0602	-1.3196
34	-6.0281	-0.6462	-17.6229**	-2.3195	-6.9452	-0.9179	-13.5302	-1.4622
35	-6.7281	-0.6999	-19.1997**	-2.4800	-6.8540	-0.8821	-14.7191	-1.5337
36	-7.0035	-0.7444	-19.6168**	-2.4187	-6.0340	-0.7792	-14.0643	-1.3808

Notes: This table reports the monthly cumulative market-adjusted abnormal returns (CMAR) and buy-and-hold abnormal returns (BHAR) for acquirer by book-to-market ratio. To analyse the book-to-market ratio effect on acquiring firm returns the non-overlapping sample is divided into two groups based on the book-to-market ratio of the acquiring firms. The book-to-market ratio is calculated by divided net tangible assets with market value based on their financial year end value in the beginning of announcement year. Low (high) book-to-market ratio refers to the acquiring firm book-to-market ratio that below (above) the median value. The returns are expressed in percentage. The corresponding *t*-statistic ($H_0 = 0$), H_0: cumulative monthly abnormal returns in the interval of T_1 to $T_2 = 0$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.22(b)

Long-term post-acquisitions performance of acquiring firms: low book-to-market ratio versus high book-to-market ratio, 2000-2004

Panel A: Cumulative market-adjusted abnormal returns (CMAR)

	Low book-to-market ratio		High book-to-market ratio		*t*-statistic for difference
Interval	CMAR (%)	*t*-statistic	CMAR (%)	*t*-statistic	
Month 1 to 12	4.7229	0.8776	-8.9679*	-1.8557	-1.8929
Month 13 to 24	-4.2463	-0.8263	-3.1329	-0.7296	0.1779
Month 25 to 36	-7.4801*	-1.6517	-7.5160**	-1.9821	0.1370

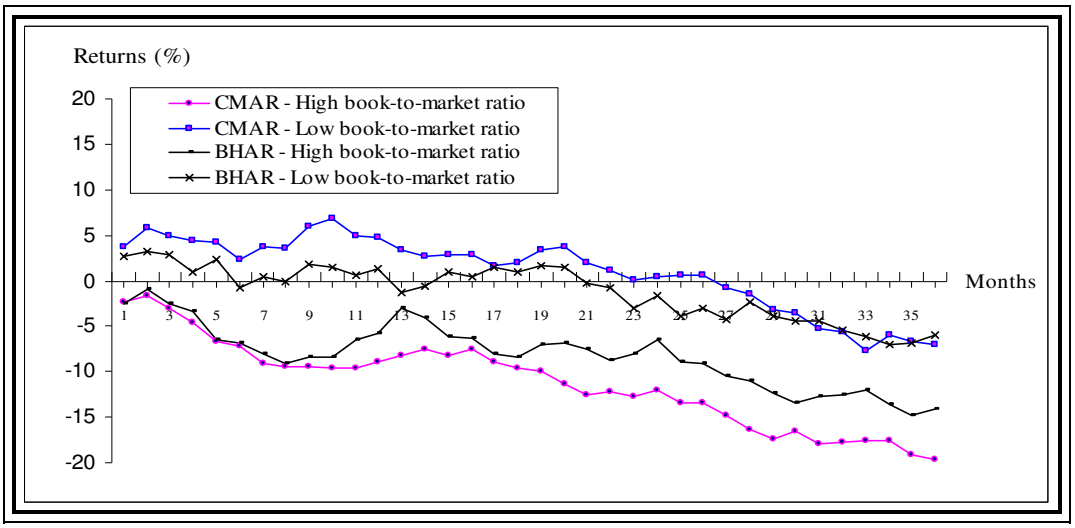
Panel B: buy-and-hold abnormal returns (BHAR)

	Low book-to-market ratio		High book-to-market ratio		*t*-statistic for difference
Interval	BHAR (%)	*t*-statistic	BHAR (%)	*t*-statistic	
Month 1 to 12	1.2566	0.2664	-5.8590	-0.9625	0.9240
Month 13 to 24	-2.8796	-0.6577	-0.7097	-0.1571	0.4041
Month 25 to 36	-4.4110	-0.9921	-7.4957	-1.6320	-0.9109

Notes: This table reports the yearly cumulative market-adjusted abnormal returns (CMAR) and buy-and-hold abnormal returns (BHAR). The returns are expressed in percentage. H_0: cumulative abnormal returns in the interval of T_1 to $T_2 = 0$.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Figure 4.15

Long-term post-acquisition performance: low book-to-market ratio versus high book-to-market ratio, 2000-2004



Notes: This graph shows the long-term post-acquisition in cumulative market-adjusted abnormal returns (CMAR) buy-and-hold abnormal returns (BHAR) of acquiring firms every month for 36 months after the acquisition. The samples are divided based on the book-to-market ratio, acquiring firm's book-to-market ratio below than the median value, is defined as 'low ', if above median value is defined as 'high' book-to-market ratio firms.

4.5.2.5 Acquiring Firms and Control Firms

Barber and Lyon (1997a) and Lyon, Barber and Tsai (1999) argue that long-term BHAR test statistics are biased. They recommend using a control sample approach in which acquiring firms are matched using industry classification, firm size and book-to-market ratio. A few of the previous studies, for example Loughran and Vijh (1997), and Datta, Datta and Raman (2001), use the matched-pair methodology to study the long-term performance of the acquiring firms. The advantage of this technique is to isolate the effect of acquisition to the acquiring firm above the normal performance of an otherwise similar firm. However, this technique is heavily dependent on finding a perfect match for each of the acquiring firm, which may be difficult. In the overall non-overlapping sample of 105 acquisitions, we manage to find only 78 matched-pairs based on industry classification, size and book-to-market ratio. However, caution must be exercised as the matching is far from perfect. This study accepts a pair that has the size and book-to-market ratio in the range of 75% to 125%, while the industry type is based on the broad industry classification of the Malaysian stock exchange.

Table 4.23 reports the buy-and-hold returns and also comparative statistics of the sample and the control firms. On average, the size ratio of control firms over the acquiring firms was 0.96 times and the book-to-market ratio of control firms over the acquiring firms was 0.97. This seems a close match of firm size and book-to-market ratio portfolio.

Table 4.23

Long-term post-acquisition performance: acquiring firm and matched firm buy-and-hold returns, 2000-2004.

Characteristics	Acquiring firm returns	Matched firm returns	Differences	*t*-statistic for differences[a]
Month 1 to 12	-10.7725**	-5.7692	-5.0033	-1.3295
Month 1 to 24	-11.2536**	-2.9549*	-8.2987	-1.5491
Month 1 to 36	-13.5509**	-6.8026	-6.7483	-1.1800
Firm size (RM million)	310,955 (958,387)	298,913 (1020,915)	12,042 (-62,528)	-
Book-to-market ratio	0.8828 (1.0861)	0.8517 (0.9629)	-	-

Notes: The buy-and-hold returns (BHAR) on stock *i*, $BHAR_i$, is calculated as

$$BHAR_i = \left[\prod_{t=1}^{T} (1 + R_{i,t}) - 1 \right] \times 100$$

The matched firms are chosen based on industry, size and book-to-market-ratio in the range of 75%-125%. The buy-and-hold return for matched is computed over the same holding period as the sample firms. The firm size (market value) and book-to-market ratio are obtained from the Bloomberg database. The market value (in RM million) is the number of shares multiplied by share price and the book-to-market ratio is calculated by dividing net tangible assets over market value. Means are reported below the medians in parentheses. The differences column refers to difference between buy-and-hold return of acquiring firm and matched firm.

[a] The *t*-statistic for differences between buy-and-hold returns of bidding firms and matched firms.

***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Table 4.23 shows that the overall sample of 78 acquiring firms has a 3-year buy-and-hold return of -13.5509% compared to -6.8026% for matching firms, giving a difference of -6.7483% (*t*-statistic = -1.1800) which is not significant at 10% level. In fact, the difference between the acquiring sample and matched firm holding returns are insignificant for all the sub-periods. Our results here do not support the H_a16 hypothesis that there is a significant difference between the acquiring firm returns and the matched firm returns. On average acquiring firms do not do better or worse than non-acquisition firms. It should be noted that the differences are quantitatively quite large, yet none is significant. This may be due to large pool-variance of the two samples. Loughran and Vijh (1997) examine acquisitions for the 1970 to 1989 period and also find that acquirers do not underperform matched firms over the post-acquisition period. Datta, Datta and Raman (2001) also find that

bidding firms do not significantly underperform their matched firm over the three-year post-acquisition period.

4.5.3 Regressions of Post-acquisition Abnormal Returns

In this section, multivariate regression is used to test the determinants of the acquirer's long-term post-acquisition returns. The regressors variable are as follow:

$$CAR_{T1,T2} / BHAR_{T1,T2} = \alpha_0 + \beta_1(TS) + \beta_2(MP) + \beta_3(NOL) + \beta_4 Ln(s) + \beta_5(BTM) + \varepsilon$$

Where,

TS = target status dummy, where TS = 1 if target is private (unlisted) and 0 otherwise,

MP = method of payment dummy, where MP = 1 if acquirer use cash settlement and 0 otherwise,

NOL = non-overlapping dummy, where NOL = 1 if acquiring firm makes single acquisition within three years and 0 otherwise,

Ln(S) = acquiring firm size measured by the log of the market value, and

BTM = acquiring firm book-to-market ratio measured by the net tangible assets divided with firm value.

Table 4.24 presents the regression results. Due to the unavailability of information on firm size and book-to-market ratio, a few firms are excluded and the sample size reduces to 121. Panel A reports the CMAR regressions, and Panel B reports the BHAR regressions. The regression model for the acquirer is significant at the 10% level for period of 1 to 12 months, 1 to 24 months, and 1 to 26 months, but the model's explanatory power is generally low (adjusted *R*-squared range from 3% to

8%). The negative intercept for the full sample (CMAR and BHAR) indicate that on average acquirer lose.

Table 4.24

Regressions of post-acquisition abnormal returns

Panel A: Cumulative market-adjusted abnormal returns (CMAR)

Dependent Variables	$CMAR_{(Month\ 1\ to\ 12)}$		$CMAR_{(Month\ 1\ to\ 24)}$		$CMAR_{(Month\ 1\ to\ 36)}$	
	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Constant	-0.4206	0.2981	-1.1702**	0.0354	-1.8559***	0.0079
D_1TS	0.0222	0.7848	-0.0274	0.805	-0.0869	0.5312
D_2MP	0.1054	0.1767	0.0822	0.4393	-0.0562	0.6717
D_3NOL	-0.0473	0.6076	-0.1657	0.1888	-0.1948	0.2161
LnS	0.0312	0.2558	0.0788**	0.0370	0.1290***	0.0066
BTM	-0.1435**	0.0412	-0.1746*	0.0685	-0.1775	-0.1371
Adjusted *R*-squared	4.48%		6.06%		8.29%	
F-statistic	2.1248*		2.5491**		3.1686***	
N	121		121		121	

Panel B: Buy-and-hold abnormal returns (BHAR)

Dependent Variables	$BHAR_{(Month\ 1\ to\ 12)}$		$BHAR_{(Month\ 1\ to\ 24)}$		$BHAR_{(Month\ 1\ to\ 36)}$	
	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Constant	-0.5979	0.1964	-1.5761**	0.0157	-2.5761***	0.0022
D_1TS	0.0653	0.4830	-0.0505	0.7037	-0.0178	0.9166
D_2MP	0.0815	0.3598	0.0322	0.7951	-0.0332	0.8344
D_3NOL	-0.0950	0.3671	-0.1628	0.2672	-0.1791	0.3392
LnS	0.0477	0.1298	0.1058**	0.0167	0.1843***	0.0012
BTM	-0.1142	0.1534	-0.0593	0.5944	-0.0767	0.5916
Adjusted *R*-squared	3.97%		2.91%		8.03%	
F-statistic	1.9924*		1.7002*		3.0070***	
N	121		121		121	

Notes: Acquiring firm in CMAR and BHAR for 12, 24 and 36 months are regressed against a set of explanatory variables. The first (D_1) dummy variable is target status defined as whether target is private (unlisted) or public (listed) firms. Second (D_1) dummy variable is method of payment defined as whether acquisitions deal is cash settlement or share settlement. Third (D_1) dummy variable is non-overlapping acquisition defined as whether acquirer makes single acquisition or multiples acquisition within three years. LnS is log of acquiring firm size, and BTM is book-to-market ratio is calculated by dividing net tangible assets with market value.
***, ** and * indicate significance at the 1% level, 5% level and 10% level, respectively.

Panel A of the table shows that using CMAR as dependent variable, none of the dummy coefficients of target status, method of payment and non-overlapping acquisitions are significant at the 10% level. The acquiring firm size and book-to-

market ratio coefficients are significant for two out of three regressions. The estimates confirm earlier findings that abnormal returns is positively related to size and negatively related to book-to-market ratio. Panel B of the table, using BHAR as dependent variable, largely confirms the results of CMAR in Panel A: none of the dummy coefficients are significant, the size coefficient is positive and significant, and the book-to-market coefficient are negative (although not significant).

In sum, the multivariate analysis confirms the results in the subgroups analysis as to how the variables studied influence the post-acquisition performance of acquiring firms. Moreover, it shows that the size of acquiring firm is a dominant factor explaining the long-term performance of the acquiring firms.

4.6 SUMMARY

In this chapter, the findings of the present study are presented based on various analyses conducted. This study uses event-type analysis to study price reaction of the acquiring and target firms for a period of 61 days around the announcement. Market model with Scholes-Williams parameters are used to calculate abnormal returns. The Scholes-Williams parameters with one lead and one lag adjustment are used to adjust for thin trading in the Malaysian stock market.

It is noticed that target firms have higher returns than acquiring firms; and target firms in successful acquisitions show permanent positive returns after the outcome date, while the unsuccessful acquirers tend to suffer losses. The relative size of target to acquiring firm also impacts significantly on the acquiring firm's returns. The larger the target firms relative to the acquiring firm, the greater the effect of the

acquisition on the acquirer's returns. As regards the industry relatedness, there is not sufficient evidence that acquirers that acquired targets in the same industry (non-conglomerate) perform better than acquirers that acquired targets in an unrelated industry (conglomerate).

The evidence of target status to acquiring firms returns strongly contrast with most prior studies in developed markets (e.g., Chang, 1998; Fuller *et al.,* 2002; and Draper and Paudyal, 2006). Our results indicate that acquirers of public listed targets do experience positive announcement period returns. However, acquirers of unlisted private target firms have negative returns. This supports the bargaining power hypothesis proposed by Draper and Paudyal (2006). Further, acquisition of public targets and private targets do not lead to risk increasing behaviour.

The method of payment in cash offers consistently show a positive and significant impact on the acquiring and target firm returns around the announcement period. This study also finds that acquirers who use share offers gain abnormal returns on the announcement day and quickly lose their earlier gain after the announcement day. With regards to acquiring firm returns and method of payment and target status, the results indicate that acquiring firms that acquired unlisted targets suffer losses during the entire event window when payment is in shares. This study's results indicate the superiority of cash offers over share offers for private (and also public) acquisitions.

The market-adjusted model and buy-and-hold abnormal return approach are used to explore the acquirer's long-term post-acquisition performance. The results indicate

that acquirers underperform in the long-term post-acquisition period. Additionally, the study also reports no significant difference between market-adjusted model returns and buy-and-hold abnormal returns. Interestingly, when the samples are further divided according to the target status, the findings suggest that acquirer's long-term post-acquisition performance is dependent on the target status. The acquirers of public targets experience insignificant negative returns, while acquirers of private targets have significant negative returns over a post three year period. The effect of method of payment on the acquirers' long-term post-acquisition performance shows a consistently significant negative return for acquirers of unlisted private targets.

The removal of overlapping acquisitions does not change the statistical significance of acquirers' returns. After the adjustment of overlapping acquisitions, the samples are further categorised according to the acquiring firm size and book-to-market ratio. The results suggest that the post-acquisition underperformance may be limited to small size acquirers and high book-to-market ratio acquirers. Regarding the matched sample analysis, this study finds insignificant differences between acquiring firms and the matched firms holding returns over the three year period.

.

Multivariate tests are also performed on the determinants of acquirer's long-term returns. The coefficient estimates confirm the importance of firm size and book-to-market ratio. But target status, method of payment and non-overlapping acquisitions are found to be insignificant. Having presented and discussed the findings, the next chapter draws the conclusions, implications, limitations as well as suggestions for future research of the study.

CHAPTER 5

SUMMARY AND CONCLUSION

5.1 INTRODUCTION

The purpose of this chapter is to reflect on the findings and discuss the contribution and limitations of the study as well as suggestions for future research. This chapter is organised as follows. Section 5.2 summarises the overall findings of this study. Section 5.3 addresses the potential implications of the study, followed by a discussion on research limitations in section 5.4. Section 5.5 offers several possible avenues for further research. Section 5.6 concludes the chapter with brief conclusions.

5.2 SUMMARY OF RESEARCH FINDINGS

This study examines the Malaysian acquisition performance for the period 2000 to 2004, through the analysis of target status and method of payment both in the short- and long-term. A total of 139 (in short-term analysis) and 124 (in long-term analysis) non-financial firms listed on Bursa Malaysia, with complete data for acquisition announcement date, outcome date, method of payment, acquisition size, share price and firm annual report were selected. A quantitative research based on the event analysis approach has been adopted to answer specific hypotheses developed in this study. The next section will discuss the summary of research findings and Table 5.1 shows the summary of results.

Table 5.1

Summary of findings

Panel A: Announcement Period Returns for the Day_0 and $Day_{(-1 \text{ to } +1)}$ Window

Hypotheses	Day_0	$Day_{(-1 \text{ to } +1)}$	N	Day_0	$Day_{(-1 \text{ to } +1)}$	N
	Acquiring Firms			Target Firms		
Value creation (H1)	1.0335***	1.4822**		4.1219***	6.9724***	
	(5.4707)	(3.3597)	139	(6.1194)	(6.9006)	32
Supported H_a1.1 and H_a1.2 value creation hypothesis.						
Information hypothesis (H2) or synergy hypothesis (H3):	Successful Acquirers			Unsuccessful Acquirers		
Returns around the announcement date	1.1532***	1.5544***		0.1747	0.9648	
	(5.7709)	(3.4879)	124	(0.7885)	(0.7784)	15
	Successful Acquirers			Unsuccessful Acquirers		
Returns around the outcome date	0.9847**	1.3263**		-0.0220	0.4204	
	(2.5525)	(1.9593)	124	(-0.6967)	(1.0495)	15
	Successful Targets					
	2.1023**	5.4525				
	(2.9650)	(1.9094)	32			
Inconsistent with the information hypothesis (H2). Unsuccessful acquirers suffer loss both around the announcement day and the outcome announcement. Successful targets have permanent increase in wealth and successful acquirers show a small gain or do not lose, both around the announcement day and the outcome announcement. The evidence can be considered to be consistent with the synergy hypothesis (H3.1 and H3.2).						
Returns and relative size:	Less than 20% (Small target)			20% or more (Large target)		
Acquiring firms	1.0380**	1.2088***		1.0826***	1.7983**	
	(5.5262)	(2.6528)	73	(3.7582)	(2.5502)	66
Supported H_a3.3 hypothesis that there is a relation between the acquiring return and the relative size of target to acquiring.						
Acquiring returns and industry relatedness	Non-conglomerate			Conglomerate		
Acquiring firms	1.3921***	2.1237***		1.2919***	1.9604**	
	(4.6461)	(2.7869)	97	(3.4652)	(2.1446)	42
H_a3.4: there is a significant difference of abnormal return between acquirers of non-conglomerate and conglomerate target. Test of the different of AR between non-conglomerate and conglomerate yield insignificant *t*-statistic of 0.6183 and 0.7412 for day 0 and day -1 to 1, respectively. Hence hypothesis is not supported.						
Returns and target status hypothesis (H4)	Public Acquisitions			Private Acquisitions		
Acquiring firms	1.2730**	2.2025**		0.9728**	1.2442**	
	(2.8205)	(2.0413)	32	(4.6894)	(2.8426)	107
Supported H_a4.1 and H_a4.2 that there is significant AR to acquirers of public targets and acquirers of private target. The results are not consistent with either the managerial motive or the liquidity hypothesis, but support the bargaining power hypothesis. Test of the different of AR public acquisition and private acquisition yield insignificant *t*-statistic of 0.5387 and 0.3992 for day 0 and day -1 to 1, respectively. Hence hypothesis (H_a4.3) is not supported.						
	Public Acquisitions			Private Acquisitions		
Acquiring firm returns and risk hypothesis (H5)	n/a	5.83†	32	n/a	5.32†	107
Does not support H_a5 risk hypothesis that the change in the risk for acquirers of private target is larger than that for acquirers of public targets. The *t*-statistic is 0.1007 † refers to standard deviation.						

continued on next page

Table 5.1(continued)

Summary of findings

Panel A: (continued)

Hypotheses	Day $_0$	Day $_{(-1 \text{ to } +1)}$	N	Day $_0$	Day $_{(-1 \text{ to } +1)}$	N
Returns and method of payment	Cash Offers			Share Offers		
(H6): Acquiring firm returns and information-signalling hypothesis	1.0281*** (5.2612)	1.4252*** (3.2171)	99	0.8132* (1.9489)	1.8675 (1.2137)	26
Test of the different of AR yield insignificant *t*-statistic of 0.6912 and 0.5370 for day 0 and day -1 to 1, respectively. Hence can not reject the hypothesis ($H_0$6) that there is no difference in the acquiring firm's abnormal return between cash acquisition and share acquisition, possibly due to the two samples size.						
	Cash Offers			Share Offers		
Target firm returns and taxes hypothesis (H7)	2.9610*** (6.2059)	6.9942*** (6.4532)	20	1.7973** (2.6376)	3.0039 (1.0006)	11
Test of the different of AR yield insignificant *t*-statistic of 0.4094 and 0.4632 for day 0 and day -1 to 1, respectively. Hence can not reject the hypothesis ($H_0$7) that there is no difference in the target's abnormal return between cash acquisition and share acquisition.						
Acquiring firms returns by methods of payment and target status (H8)	Cash Offers			Share Offers		
Public acquisitions	1.2259*** (4.0146)	2.6987*** (2.6255)	20	0.3758 (0.1310)	0.7801 (0.5119)	11
Private acquisitions	0.9081** (3.9012)	1.0237** (2.3344)	79	0.6536* (1.7837)	1.9813 (1.1474)	15
Supported the method of payment and target status hypothesis that acquiring firms' returns are affected by method of payment and target status.						

Panel B: Acquiring Firms Post-acquisition Performance over Three Years After the Acquisitions

Hypotheses	N	CMAR	BHAR
Post-acquisition performance (H9)	124	-15.1306** (-2.6987)	-13.9243** (-2.1022)
Supported H_a9 that there is a significant abnormal return for acquiring firm in long-run. The *t*-statistic test of the different of abnormal returns between CMAR and BHAR is insignificant (*t*-value = -0.1073). Hence, can not reject the model sensitivity hypothesis ($H_0$10) that the two models are the same.			
Returns and target status (H11)			
Public acquisitions	32	-5.8584 (-0.6207)	-2.5647 (-0.1888)
Private acquisitions	92	-18.6772*** (-2.7445)	-17.7534** (-2.3412)
Does not support the hypothesis (H_a11.1) that acquirers of public targets generate significant returns. But support the hypothesis (H_a11.2) that there is a significant return for acquirers of unlisted target.			

continued on next page

Table 5.1(continued)

Summary of findings

Panel B: (continued)

Hypotheses	N	CMAR	BHAR
Returns and method of payment (H12)			
Public acquisitions – cash offers	20	6.0163 (0.5363)	7.3783 (0.3718)
Public acquisition – share offers	12	-13.7469 (-0.7632)	-13.9115 (-0.8160)
Private acquisitions – cash offers	70	-17.7504** (-2.3850)	-18.0660** (-2.2526)
Private acquisition – share offers	22	-21.6206 (-1.3515)	-19.9105 (-1.0761)
Weak support H12 hypothesis that acquirers of public targets and acquirers of private targets returns are not affected by method of payment.			
Returns and adjustment overlapping acquisitions (H12)			
All acquisitions	124	-15.1306** (-2.6987)	-13.9243** (-2.1022)
Non-overlapping acquisitions	105	-14.9464** (-2.3771)	-14.1410* (-1.9252)
Does not support H_a13 hypothesis that there is a significant difference of returns between acquirers in single acquisition and acquirers in multiple acquisition transactions. Test of the different between all acquisitions and non-overlapping acquisitions yield insignificant *t*-statistic of -0.03 (CMAR) and 0.17 (BHAR), respectively.			
Firm size and book-to-market ratio:			
Large firm size	53	-0.2064 (-0.0214)	3.33270 (0.3576)
Small firm size	49	-26.4578*** (-3.6176)	-25.2296*** (-2.9976)
Supported H_a14 hypothesis that there is a significant relationship between post-acquisition performance and acquiring firm size. The *t*-statistic test of the different of abnormal returns between large firm size and small firm size is significant. Hence, support for the hypothesis.			
High book-to-market ratio	53	-19.6168** (-2.4187)	-14.0643 (1.3808)
Low book-to-market ratio	49	-7.0035 (-0.7444)	-6.0340 (-0.7792)
Supported H_a15 hypothesis that there is a significant relationship between post-acquisition performances of acquiring firm and book-to-market ratio.			
Matched portfolio hypothesis (H16)		Acquiring firms	Matched firms / Difference
Buy-and-hold returns	78	-13.5509	-6.8026 / -6.7483 (-1.1800)
Does not support H_a16 hypothesis that there is a significant difference between acquiring returns and the matched firm returns.			

Notes: Panel A is summary of findings relating to announcement period returns for the Day_0 and $Day_{(-1\ to\ +1)}$ window and Panel B is summary of findings relating to acquiring firms post-acquisition performance over three years after the acquisitions. Figures in parentheses are the t-statistic.
***, ** and * refer to 1%, 5% and 10% significance levels, respectively.

5.2.1 Announcement Period Return

Panel A of Table 5.1 summarises the results from the event study around the announcement date. From the analyses conducted, it was found that the acquisition event has a contemporaneous impact on the Malaysian acquiring and target firms share prices. The evidence indicates a strong relation between unexpected acquisition events and firms share returns during the immediate period around the announcement date. This is consistent with the efficient market hypothesis. It is also noticed that after the announcement the share price does not exhibit post-announcement drift, which is an evidence of market efficiency. The evidence suggests that acquisition activities create positive gains (supported H1), most of which go to the target firms, while acquiring firms have small returns.

At the outcome date of acquisition event, the upward revaluation of the successful target's shares shows a permanent revaluation, while the successful acquiring firms do not lose or show a small gain, and the unsuccessful acquirers tend to suffer losses. This behaviour is consistent with the synergy gains hypothesis. The amount of synergy gain may be determined by the relative size of the target to acquiring firms and industry relatedness of the acquisition. The findings suggest that acquirer returns are positively related to the relative size (supported $H_a3.3$ hypothesis). Acquisition of related industry is wealth-creating but does not necessarily perform better than unrelated industry; both sub-groups have positive returns on acquirers returns (does not support $H_a3.4$).

With regards to target status on acquiring firm returns, this study finds that acquirers of public targets have higher returns than acquirers of private targets around the announcement period (weak support for H4). These findings support the bargaining power hypothesis proposed by Draper and Paudyal (2006). The hypothesis states that unlisted private target firms have greater bargaining power by virtue of being closely held and having a large portion of manager ownership. To see the impact of the target status on acquiring firm returns this study further examines the risk implications on acquirers of public and acquirers of private targets. The standard deviation and beta in this study does not support the hypothesis H_a5 that the change in the risks for acquirers of private targets is larger than that for acquirers of public target.

Further analysis is carried out to explain the link between the choice of the methods of payment on both the acquiring and target firms. This study finds that methods of payment are one of the most important determinants of the Malaysian firms' returns around acquisition announcement. The market takes the unexpected acquisition announcements as a kind of signal from the acquiring firm, while the investors are concerned with what kind of information the acquiring firm is trying to signal. The market has tried to give different explanations to the kind of information that is being signalled. A cash offer will signal that the market is expecting an increase in the acquiring and target firms, and vice versa. This is known as the information-signalling hypothesis.

As for the method of payment, it seems that the Malaysian market prefers cash offers to share offers. This study finds that target firms involved in cash offers earn

higher positive returns than share offers around the announcement period. This study also finds that acquirers who used cash offers gain abnormal returns, while those who used share offers only gain on announcement day and suffer losses in the post-announcement period. This phenomenon is consistent with the type of financing signalling model of Myers and Majluf (1984) where cash offers are considered 'good news' and share offers are considered 'bad news' by the market.

The analysis of acquiring firms excess returns by the method of payment and the target status allows an examination of the validity of the information asymmetry and the corporate monitoring hypothesis. As private target firms tend to have very concentrated ownership, this unique ownership structure suggests that when share-settlement is used to acquire a private target, block holders are likely to emerge in the combined firm, which may monitor the firm's activities making it more effective and leading to reduced agency costs. Hence, share settlement should lead to higher prices for acquisition of private target. However, this study finds that acquirers in cash offers have higher returns than share offers, in both the public and private acquisitions. This lends support to the predictions of information-signalling hypothesis that settlement in cash is preferred regardless of the target status (support H8).

5.2.2 Long-term Post-acquisition Performance

With regard to the long-term post-acquisition performance, this study uses two approaches, the market-adjusted model and the buy-and-hold model to estimate the acquiring firm's abnormal returns. Panel B of Table 5.1 summarises the acquiring firms' post-acquisition performance over a three-year period after the acquisition.

This study finds that acquiring firms show underperformance in the three-year post-acquisition period (support H_a9). The market-adjusted abnormal returns and buy-and-hold abnormal returns are not significant for year one and year two, but significant for year three. This is consistent with Agrawal *et al*. (1992) who find significant negative returns for acquiring firms in the third year after the merger. The post-acquisition underperformance supports the behavioural arguments that the market slowly corrects its overvaluation of the acquiring firms' shares (Baker, Ruback and Wurgler, 2007). The results also indicate that the long-term post-acquisition performance of acquirers is not sensitive to either the market-adjusted model or the buy-and-hold approach (support H_a10).

After controlling for the target status, the results show that underperformance is only observable in private acquisitions and is only in year two and three. This is similar to the market reaction at the time of announcement. For the acquirers of public listed targets it is found that they do not under-perform three years after the acquisition (weak support H11). With regards to the method of payment, based on Myers and Majluf's signalling model (1984), if the acquisition is driven by miss-valuation, the manager of acquiring firms will use their shares for financing rather than cash when their private information indicates that the shares are overvalued by the market. Following the acquisitions in which shares are used as the method of payment, the market valuation in the long-term should converge to the fundamental value, which is lower than the valuation at the time of the announcement. Therefore, the acquiring firms who use share offers underperform over long holding periods. Our results indicate that the acquirers of public targets do not underperform, regardless of the

method of payment. However, acquirers of private targets who use share offers suffer more losses than acquirers that use cash offers (weak support H12).

Tuch and O'Sullivan (2007) noted that a problem in assessing the long-term performance of an acquiring firm is the overlapping events (multiple acquisitions in the event period). We run separate test for non-overlapping sample and find no significant difference between the single acquisitions and multiple acquisitions (does not support H_a13). The result is consistent with Loughran and Vijh (1997).

This study further categorizes the sample according to the acquiring firms' size and book-to-market ratio. The market value is the proxy of the acquiring firm's size. It is found that underperformance is only to the small size acquirers (support H_a14). The post-acquisition abnormal returns for high book-to-market ratio acquirers are significantly negative, while the low book-to-market ratio acquirers experience insignificant negative abnormal returns (support H_a15).

This study does not document any significant difference between the acquiring firm and matched sample based on the criteria of similar industry, firm size and book-to-market ratio. The difference between the acquiring sample and matched firm holding returns is not statistically significant for the entire observation period (i.e. does not support H_a16). This suggests that the acquirers involved in acquisitions do not do better or worse than non acquiring firms.

5.3 IMPLICATIONS OF THE STUDY

The findings of this study have a number of implications.

1. Implications for Theory

The results of this study are contrary to prior studies on the abnormal return of the acquiring firms based on target status. All documented evidence show that acquiring firms gain from acquiring private targets, but we found the opposite. This might imply that acquisitions of unlisted private targets may not universally improve acquirers' performance. Previous studies argue that private targets suffer from a lack of market liquidity (Chang, 1998; and Fuller *et al*., 2002). Capron and Shen (2007) argue that acquirers should take into account information asymmetry when choosing a target. Generally, the information on public firms is more widely and easily available to acquirers, whereas managers of private firms typically have better control over the information they want to communicate. Accordingly, acquirers incur higher costs when buying a private firm as ignoring the information asymmetry factor when choosing a target will reduce acquirer returns. Moreover, the private targets, notably small ones, tend to face greater difficulties to signal their value to investors (Becchetti and Trovato, 2002). The lesson to be learnt is that future acquiring firms need to be extra cautious in their negotiations when acquiring an unlisted target so as not to overpay.

Prior studies employed the neoclassical profit maximization theories as one of the theories in explaining acquisition firm performance such as Berkovitch and Narayanan (1993), and Martynova and Renneboog (2006). This study contributes towards the neoclassical profit maximization theories (value creation, information and synergy) in explaining the acquiring and target firms performance. The result of

this research indicates that the target status effect is present. We find that acquirers in public acquisitions gain while acquisition in private do not show significant abnormal returns, furthermore, we find that information-signalling effect is present only in public acquisition. But the effect is not significant for the private acquisitions. Hence, our evidence is also consistent with the signalling model of Myers and Majluf (1984) that due to information asymmetry, cash financing is considered "good news" whereas share financing is considered "bad news" by the market.

2. Implications for Management and Shareholders

The results presented in this study could be useful to management and shareholders who are concerned with corporate acquisition activities in their firms. It should create awareness for both the acquiring and target firm management and shareholders on the importance of the best choice for financing acquisitions that signals information to the market. This will assist them in their attempt to acquire another firm and also to be more sensitive in their financing decision, thus, enhancing their ability to maximize shareholder wealth.

Our results indicate that acquiring firms gain more from acquiring a public target as opposed to acquiring a private target. This finding is in contrast to the results of many previous studies in developed markets. We explained that this may be due to the scarcity of information, secrecy of operation and the closely held ownership of the private targets that result in them having a superior bargaining power in the negotiation. The policy implication of this is that firms looking for asset acquisition are better off considering public listed targets as information and market evaluation on

these companies are readily available, as opposed to the "secluded" private targets. However, if the assets need to be acquired from a private company, the acquiring firms need to acquire complete information on the target so as to have a reasonable strength in the bargaining process.

In terms of method of payment, if a firm is acquiring a public target, the deal is better off settled by cash settlement because market sees share settlement as a negative signal to the value of the acquiring firm. Therefore using share to purchase a listed public targets will result in devaluation of the acquiring firm shares. However, in acquiring a private target, it is better to use share settlement as the signalling effect is not seen in this context. Further, our results also do not indicate that block ownership of the private target would become an effective monitoring force after acquisition.

As for investors, the information content of acquisition events will help them make better investment decisions in the future by encouraging them to analyse the fundamental aspects of the company when making their investments. Perhaps the findings from this extensive performance analysis of acquisition will encourage them to do so as well as being less speculative in their investment strategy the future.

3. Implications to Academics

The findings of this study are useful in establishing a starting point for empirically exploring the importance of target status and method of payment in the context of Malaysian acquisition performance. The results presented in this study could be useful to academic researchers studying target status and method of payment of

acquisition performance in both the short- and long-term analysis. Instead of focusing solely on the impact of acquisition and method of payment and acquiring and target firm returns, this study provides evidence that target status also has an influence on the acquiring firm's returns and are worth extending to other markets in future, especially in the developing markets.

Malatesta (1983, p.179) states that there are a few possible explanations for the significantly negative abnormal returns that accrue to acquiring firms after the acquisition announcement: *(1) the securities market is inefficient in processing merger-related information, (2) the methods employed are incapable of accounting for shift in risk parameters occurring around the time of a merger. Post-merger losses are statistical artefacts.*

Market inefficiency is an unlikely explanation for negative abnormal long-term post-acquisition returns to acquiring firms found in this study. This is because the evidence of short-term performance shows that the market is efficient. Previous empirical works used different techniques to estimate long-term post-acquisition performance. Of course these may be due to deficient methodology in the sense of explanation (2). This study use CMAR and BHAR techniques to estimate post-acquisition performance. The evidence show that results are not sensitive to these choices and acquiring firms earned significantly negative returns in year two and year three only which consistent to many US studies. Still, explanation (2), however, cannot be ruled out. We expect long-term performance methodologies debate will continue.

4. Implications to Policy Makers

Based on short-term acquisition announcement results (day -1 to day 1) in this study shows that Bursa Malaysia is efficient, investors without prior information concerning the acquisition announcements could not benefit from the price increase. Though the efficiency of Bursa Malaysia is well established, there is no indication shown of insider trading in relation to corporate acquisition activities. The results of this study indicate full market compliance with the existing policy and regulations.

The data collection for this study was difficult. The information requires is not available in any computerise form. This is because there is no database; data have to collect from different sources, therefore data collection is time consumer and subject to error. It is recommended to policy maker to have proper database where complete acquisition announcement would be made available to researchers.

5.4 LIMITATIONS OF THE STUDY

Our findings that are inconsistent with previous studies present a serious challenge for researches to propose appropriate explanations; and these are listed below:

1. The Malaysian acquisition data in this study only covers a five year period (2000-2004) and, therefore, may not be generalized for other periods such as prior or post financial crisis or during the financial crisis. The sample cannot be further extended to include periods post financial crisis, partly because of the various restructuring plans taking place and the economic disturbance during that period, which would result in biased findings and might not be fully representative of the acquisition performance in Malaysia. Generalising the results to other years should be viewed with caution.

2. The firms that were included in the sample were not retrieved from the database. Rather, the firms were selected based upon the data availability in the acquisition announcement in the library of the Malaysia Stock Exchange. In Malaysia there are no published statistics available on mergers and acquisition activities. The data has to be collected manually by searching all the relevant documents, i.e., monthly *Investor Digest* and the exchange (Bursa Malaysia) website. Such data, when collected and compiled independently, may be subject to errors and omissions.

3. This study focused on the univariate test methodology (i.e., target status, method of payment, acquisition size, relative size, etc). In addition, using multivariate regression of acquiring abnormal returns on target status, method of payment, industry relatedness and firm size. However, multivariate regression in this study does not distinguish between acquirers of public acquisitions and acquirers of private acquisitions, and the determinants of acquirer abnormal returns (such as Fuller *et al.,* 2002; and Moeller, Shingemann and Stulz, 2004). This is because the sample size for public and private acquisitions in the Malaysian scenario is relatively small compared to the US studies.

5.5 SUGGESTIONS FOR FUTURE RESEARCH

The extension to the current study is possible in the following areas:

1. In this study, the sample size of the acquiring firms is 139 and target firms is 32, which is relatively small compared to previous empirical studies in developed markets. This is because there are fewer firms listed on Bursa Malaysia. Similar research should be re-examined in the future; perhaps a longer time period may increase the sample size. This may give better benefits in analyzing the impact of

acquisition to provide greater support of the evidence between target status, method of payment and performance of acquisition in Malaysia.

2. All the previous studies referred to only analyse the excess return to the acquirers of public targets and acquirers of private targets for a short window period in the developed markets. To date, only the studies by Moeller, Schlingemann and Stulz (2004) for the US and Conn *et al.* (2005) and Antonios, Petmezas and Zhao (2007) for the UK explore the target status in relation to the long-term post-acquisition performance of acquiring firms. For this study, the analysis is repeated for a long horizon period of three years after the acquisition announcement. As presented in Chapter 4 (section 4.4.5.1 and section 4.5.2.1) it reveals that shareholders of acquiring firms fail to gain from acquiring an unlisted private target firms in both the short- and long-term. The result of this study is inconsistent to Moeller, Schlingemann and Stulz (2004), and Conn *et al.* (2005) who suggest that acquirers of private targets experience positive gains. However, it supports Antonios, Petmezas and Zhao (2007) who find that acquirers of private targets experience significant wealth losses in the long run. Similar research should be re-examined in the future, or extend the research to the determinants of the performance of acquirers of public targets.

3. This study employs share price data to establish the distribution of gains and losses to acquiring and target firm shareholders by focusing on acquisitions of publicly listed firms. It would be useful for future studies to include unlisted private firms to examine the financial performance and different performance measures to capture directly the extent of the long-term post-acquisition

performance. The post-acquisition performance should perhaps be compared with the objectives that initiate the acquisition.

4. This research is situated in the positivism paradigm, which relies mainly on the secondary data and quantitative based research approach. Perhaps future research might follow up this study using an interpretive perspective to search into issues not clearly explainable in this thesis – by studying the acquisition financing strategy and investigating the factors that motivate acquirers buying another firm, and measuring the success of the acquisition. This can help us to understand the acquiring firm share price behaviour in both the short- and long-term.

5.6 CONCLUSION

This study investigates the target status, method of payment and acquisition performance for the Malaysian public listed firms on Bursa Malaysia for the period 2000 to 2004. The study sets out to accomplish five objectives. The first research objective is to examine if established acquisition theories in the developed markets are equally applicable in the Malaysian developing market. The results of the short-term analysis are consistent with value maximizing behaviour on the part of acquiring firms. Unfortunately our studies are unable to identify clearly which of the many value maximization theories is applicable in the Malaysian market. Both the information and synergy arguments remain viable theories to explain acquisitions. In addition, our result on public versus private acquisition reveals a stark contrast with the majority of findings in developed markets. Further, our long-term post-acquisition negative performance result seems to dismiss the value maximizing

argument. But it could also well be the case of "illusions of market efficiency" shown in the short-term gains around the announcement. Therefore as far as the first objective goes, there is no clear indication that the Malaysian market behaves in a manner consistent with established markets.

The second research objective is to examine the share price performance of acquiring and target firms around an acquisition announcement. We find that both the acquiring and target firms share price react positively to an acquisition announcement, most of which go to target firms. After the announcement day, targets' prices remain relatively stable, while acquirers' prices decline, losing most of the prior gains. The average gain of 1.0335% for acquiring firms on the announcement day initiates a temporary positive share price movement, whereas for long-term, three years after acquisition there are significant negative returns. The negative result of the long-term performance is consistent with earlier studies. The possible explanation of acquiring firms losing value could be that the anticipated acquisition gains will not be completely achieved or that the acquiring firm's management does not act in the best interests of the shareholders after acquisition. Also, the acquiring firms tend to be considerably larger than the target firms and, thus, the relative effect will be small.

The third objective of the study is to investigate the impact of target status on acquiring firm returns. The results indicate that acquirers of public targets earn positive returns while acquirers of private targets suffer losses around the announcement period, which is inconsistent with developed market results. These findings are, however, not surprising since private target firms have greater

bargaining power by virtue of being closely held and having a high proportion of manager ownership. The findings of target status on acquiring firm returns are clearly not consistent with the managerial motive or with the liquidity hypothesis, but support the bargaining power hypothesis proposed by Draper and Paudyal (2006). This might also be due to the fact that private acquisition creates a relatively small amount of synergy due to the relatively small size of the target firms. The standard deviation and beta results indicate that acquisition of public targets and private targets do not lead to risk increasing behaviour. However, given that the short-term results may be driven by market mispricing, it is not prudent to draw a conclusion based solely on the short-term results. Looking at long-term performance, this study finds that acquirers of unlisted private targets suffer significant wealth losses, while acquirers of listed targets experience neither gains nor losses over a post three year period.

The fourth research objective is to examine the impact of different method of payment on acquiring and target firm's return. The methods of payment examine are pure cash or pure share settlement. This objective tests whether the market interprets an announcement of acquisition with cash payment differently from one with payment in shares, in both public and private acquisitions. This study finds that the acquiring and target firms in cash offers earn higher returns than share offers around the announcement period. This study also indicates the superiority of cash offers over share offers for public/private acquisitions. For the long-term, acquirers in shares settlement suffer more losses than acquirers in cash settlement. This phenomenon is consistent with the signalling-information model, which says that the market regards cash offers as favourable news.

The fifth research objective is to examine the long-term post-acquisition performance of acquiring firms using different return adjustment models. In general, we find that the performance of acquiring firm is significantly negative over the three-year post-acquisition period. When analyze by the target status, it is found that private acquisitions result in significantly negative returns, while public acquisitions experience neither gains nor losses, which is consistent with the short-term analysis. Long-term analysis based on the method of payment shows that acquirers in share settlement suffer more losses than acquirers in cash settlement. For the adjustment of overlapping acquisitions long-term analysis shows that there is no significant difference for acquirers in a single acquisition compared to multiple acquisitions. When controlling for firm size, book-to-market ratio the results suggest that underperformance may be associated with small size acquirers as opposed to large size acquirers, and to acquirers with high book-to-market ratio. The results also show that there is no difference in return between acquiring firms and the matched sample firm. In terms of differences due to the method of adjustments, our results show that there is no significant difference between the CMAR and BHAR models.

REFERENCES

Agrawal, A., Jaffe, J.F. and Mandelker, G.N. (1992). The post-merger performance of acquiring firms: A re-examination of an anomaly. *Journal of Finance.* 47(4).1605-1621

Ali, Ruhani. and Gupta, G.S. (1999). Motivation and outcome of Malaysian takeovers: An international perspective. *Journal of Decision Maker*. 24(3). 41-49

Ali, Ruhani. and Gupta, G.S. (2000). Corporate takeovers in Malaysia: Discriminant analysis for bidder and target firms. *Asian Academy of Management Journal.* 5(1). 1-14

Amihud, Y. and Lev, B. (1981). Risk reduction as a managerial motive for conglomerate mergers. *Bell Journal of Economics.* 12(2). 605-617

Amihud, Y., Lev, B. and Travlos, N.G. (1990). Corporate control and the choice of investment financing: The case of corporate acquisitions. *Journal of Finance.* 45(2). 603-616

Amihud, Y., DeLong, G.L. and Saunders, A. (2002). The effects of cross-border bank mergers on bank risk and value. *Journal of International Money and Finance*. 21(6). 857-877

Andrade, G., Mitchell, M. and Stafford, E. (2001). New evidence and perspective on mergers. *Journal of Economic Perspective.* 15(2). 103-120

Ang, J. and Kohers, N. (2001). The take-over market for privately held companies: The US experience. *Cambridge Journal of Economics.* 23(26). 723-747

Annuar, M.N., Ariff, M. and Shamsher, M. (1994). Is Kuala Lumpur's emerging share market efficient? *Journal of International Financial Markets Institutions and Money.* 4(1/2). 89-100

Antoniou, A., Petmezas, D. and Zhao, Huainan. (2007). Bidders gains and losses of firms invloved in many acquisitions. *Journal of Business Finance and Accounting.* 34(7-8). 1221-1224

Ariff, M., Shamsher, M. and Annuar, M.N. (1997). *Stock pricing in Malaysia: Corporate financial and investment management.* Universiti Putra Malaysia Press

Asquith, P. (1983). Merger bids, uncertainty, and stockholder returns. *Journal of Financial Economics.* 11(1). 51-83

Asquith, P. and Mullins, Jr.D. (1986). Equity issues and offering dilution. *Journal of Financial Economics.* 15(1-2). 61-90

Asquith, P., Burner, R.F. and Mullins, Jr.D. (1983). The gains to bidding firms from mergers. *Journal of Financial Economics.* 11(1). 121-139

Athukorala, Prema-chandra. (2001). *Crisis and recovery in Malaysia: The role of capital controls*. Cheltenham. U.K: Edward Elgar Publishing Limited

Auerbach, A.J. and Reishus, D. (1988). The impact of taxation on mergers and acquisitions. Auerbach, A.J. (Ed.), *Mergers and Acquisitions.* 157-190. Chicago: University of Chicago Press

Baker, M. Ruback, R.S. and Wurgler, J. (2007). Behavioral corporate finance, in Eckbo, B.E., Ed: *Handbook of Corporate Finance: Empirical Corporate Finance.* 1. Chapter 4 (Elsevier/North-Holland, Handbooks in Finance Series)

Ball, R. and Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research.* 6(2). 159-178

Bank Negara Malaysia Annual Reports. (2001). Bank Negara, Malaysia. Retrieved August 15, 2006, from http://www.bnm.gov.my

Barber, B.M. and Lyon, J.D. (1997a). Detecting long-run abnormal stock returns: The empirical power and specification of test statistics. *Journal of Financial Economics.* 43(3). 341-372

Barber, B.M. and Lyon, J.D. (1997b). Firm size, book-to-market ratio, and security returns: A holdout sample of financial firms. *Journal of Finance*. 52(2). 875-883

Bartholdy, J. and Riding, A. (1994). Thin trading and the estimation of betas: The efficacy of alternative techniques. *Journal of Financial Research*. 17(2). 241-254

Beaver, W.H. (1981). Econometric properties of alternative security return methods. *Journal of Accounting Research*. 19(1). 163-184

Becchetti, L. and Trovato, G. (2002). The determinants of growth for small and medium sized firms: The role of the availability of external finance. *Small Business Economic.* 19(4). 291-306

Bellamy, D.E. and Lewin, W.L. (1992). Corporate takeover, method of payment, and biddings firms shareholders returns: Australia evidence. *Asia Pacific Journal of Management.* 9(2). 137-149

Ben-Amar, W. and Andre, P. (2006). Separation of ownership from control and acquiring firm performance: The case of family ownership in Canadian. *Journal of Business Finance and Accounting.* 33(3&4). 517-543

Berk, J.B., Green, R.C. and Naik, V. (1999). Optimal investment, growth options, and security returns. *Journal of Finance*. 54(5). 1553-1607

Berkovitch, E. and Narayanan, M.P. (1993). Motives for takeovers: An empirical investigation. *Journal of Financial and Quantitative Analysis.* 28(3). 347-362

Betton, S., Eckbo, B.S. and Thorburn, K. (2008). Corporate takeovers, in B.E. Eckbo, ed.: *Handbook of Corporate Finance: Empirical Corporate Finance.* 2. Chapter 15. (Elsevier/North-Holland, Handbooks in Finance Series)

Bhardway, R.K. and Brooks, L.D. (1993). Dual betas from bull and bear markets: Reversal of the size effect. *Journal of Financial Research*. 16(4). 269-283

Bhagat, S., Dong, M., Hirshleifer, D. and Noah, R. (2005). Do tender offers create value? New methods and evidence. *Journal of Financial Economics.* 76(1). 3-60

Black, F. (1993). Beta and return. *Journal of Portfolio Management*. 20(1). 8-18

Blume, M.E. (1975). Betas and their regression tendencies. *Journal of Finance.* 30(3). 785-799

Boehmer, E., Musumeci, J. and Poulsen, A. (1991). Event-study methodology under conditions of event-induced variance. *Journal of Financial Economics.* 30(2). 253-272

Bolton, P. and Von-Thadden, E.L. (1998). Blocks, liquidity, and corporate control. *Journal of Finance.* 53(1). 1-25

Bradley, M. (1980). Interfirm tender offers and the market for corporate control. *Journal of Business*. 53(4). 345-376

Bradley, M., Desai, A. and Kim, E.H. (1983). The rationale behind interfirm tender offers: Information or synergy? *Journal of Financial Economics.* 11(1-4). 183-206

Bradley, M., Desai, A. and Kim, E.H. (1988). Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics.* 21(1). 3-40

Brav, A. (2000). Inferences in long-horizon event studies: A bayesian approach with applications to initial public offerings. *Journal of Finance*. 55(5). 1979-2016

Brown, D.T. and Ryngaert, M.D. (1991). The mode of acquisition in takeovers: Taxes and asymmetric information. *Journal of Finance*. 46(2). 653-669

Brown, S.J. and Warner, J.B. (1980). Measuring security price performance. *Journal of Financial Economics.* 8(3). 205-208

Brown, S.J. and Warner, J.B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics.* 14(1). 3-31

Brown, S.J. And Weinstein, M.I. (1985). Derived factors in event studies. *Journal of Financial Economics.* 14(3). 205-258

Bugeja, M. and Walter, T. (1995). An empirical analysis of some determinants of the target shareholder premium in takeovers. *Accounting and Finance.* 35(2). 33-60

Bujang, Imbarine. and Annuar, M.N. (2007). The relevance of Gordon's model and earnings multiplier approached in emerging stock market: Test with appropriate refinements. *International Research Journal of Finance and Economics.* 7. 140-152

Burner, R.F. (1988). The use of excess cash and debt capacity as a motive for merger. *Journal of Financial and Quantitative Analysis.* 23(2). 199-217

Bursa Malaysia Listed Companies Statistics. (2007). Bursa Malaysia, Malaysia. Retrieved December 10, 2007, from http://www.bursamalaysia.com

Campa, J.M. and Hernando, I. (2004). Shareholder value creation in European M&As. *European Financial Management.* 10(1). 47-81

Campbell, J.Y., Lo, A.W. and MacKinlay, A.C. (1997). *The Econometrics of Financial Markets.* New Jersey: Princeton University Press

Capron, L. (1999). The long-term performance of horizontal acquisitions. *Strategic Management Journal.* 20(11). 987-1018

Capron, L. and Shen, J.C. (2007). Acquisitions of private vs public firms: Private information, target selection and acquirer returns. *Strategic Management Journal.* 28(9). 891-911

Carhart, M. (1997). On persistence in mutual fund performance. *Journal of Finance*. 52(1). 57-82

Carleton, W.T., Guilkey, D.K., Harris, R.S. and Stewart, J.F. (1983). An empirical analysis of the role of the medium of exchange in mergers. *Journal of Finance*. 38(3). 813-826

Cartwright, S. and Schoenberg, R. (2006). Thirty years of merger and acquisitions research: Recent advances and future opportunities. *British Journal of Management*. 17(Ps1-s5). 1-6

Chan, Louis K.C., Hamao, Y. and Lakonishok, J. (1991). Fundamentals and stock return in Japan. *Journal of Finance*. 46(5). 1739-1764

Chang, Saeyoung. (1998). Takeovers of privately held targets, methods of payment, and bidder returns. *Journal of Finance.* 53(2). 773-784

Chatterjee, R. (1992). Sources of value in takeovers: Synergy or restructuring-implications for target and bidder firms. *Strategic Management Journal.* 13(4). 267-286

Chatterjee, R. and Kuenzi, A. (2001). Mergers and acquisitions: The influence of methods of payment on bidder's share price. *Research Papers in Management Studies.* University of Cambridge

Chen, N.F. and Zhang, F. (1998). Risk and return of value stocks. *Journal of Business*. 71(4). 501-535

Cheng, F.F. (2000). The impact of accounting earnings disclosures on stock prices in Malaysia, an emerging market. Unpublished PhD Thesis, Universiti Putra Malaysia

Cheung, Y.L. and Shum, C.K. (1993). Corporate takeover and shareholders' wealth in Hong Kong. *British Accounting Review*. 25(3). 213-226

Chong, B.S., Liu, M.H. and Tan, K.H. (2006). The wealth effect of forced mergers and cronyism. *Journal of Banking and Finance.* 30(11). 3215-3233

Clark, K. and Ofek, E. (1994). Mergers as a means of references restructuring distressed firms: An empirical investigation. *Journal of Financial and Quantitative Analysis*. 29(4). 541-565

Claessens, S., Djankov, S. Lang, L. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics.* 58(1-2), 81-112

Cohen, K., Hawawini, G.S., Maier, R., Schwartz, R. and Whitcomb, D. (1983). Estimating and adjusting for the intervalling-effect bias in beta. *Management Science*. 30(1). 135-148

Companies Act and Regulations: Malaysian Code on Take-Overs and Mergers 1998. (2002). Kuala Lumpur: MIDC publisher

Conn, R., Cosh, A.D., Guest, P.M. and Hughes, A. (2005). The impact on UK acquirers of domestic, cross-border, public and private acquisitions. *Journal of Business Finance and Accounting.* 32(5&6). 815-870

Cowan, A. and Sergeant, A. (1996). Trading frequency and event study test specification. *Journal of Banking and Finance.* 20(10). 1731-1757

Da Silva Rosa, R., Izan, H.Y., Steinback, A. and Walter, T. (2000). The method of payment decision in Australia takeovers: An investigate of causes and effects. *Australia Journal of Management*. 25(1). 76-94

Datta, S., Datta, M.I. and Raman, K. (2001). Compensation and corporate acquisition decisions. *Journal of Finance.* 56(6). 2299-2336

Davis, J.L. (1994). The cross-section of realized stock returns: The pre-COMPUSTAT evidence. *Journal of Finance*. 49(5). 1579-1593

DePamphilis, D. (2005). *Mergers, acquisitions, and other restructuring activities.* 3rd edition. Elsevier Academic Press. London

Department of Prime Minister. (n.d.). Foreign Investment Committee. *Guidelines for the regulation of acquisitions of assets, mergers and take-overs by local and foreign interest and guidelines on the acquisition of properties by local and foreign* interests. Retrieved May 4, 2006, from http://www.epu.gov.my/home

Demsetz, H. and Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*. 93(61). 1155-1177

Dennis, D.K. and McConnell, J.J. (1986). Corporate mergers and security returns. *Journal of Financial Economics.* 16(2). 143-187

Dimson, E. (1979). Risk measurement when shares are subject to infrequent trading. *Journal of Financial Economics.* 7(2). 197-226

Dimson, E. and Marsh, P. (1983). The stability of UK risk measures and the problem of thin trading. *Journal of Finance.* 38(3). 753-783

Dimson, E., and Marsh, P. (1986). Event study methodologies and the size effect: The case of UK press recommendations. *Journal of Financial Economics.* 17(1). 113-142

Dodd, P. (1980). Merger proposals, management discretion, and stockholder wealth. *Journal of Financial Economics.* 8(2). 105-138

Dodd, P. and Ruback, R.S. (1977). Tender offers and stockholders returns: An empirical analysis. *Journal of Financial Economics.* 5(3). 351-374

Draper, P. and Paudyal, K. (1999). Corporate takeovers: Mode of payment, returns and trading activity. *Journal of Business Finance and Accounting*. 26(5&6). 521-558

Draper, P. and Paudyal, K. (2006). Acquisitions: Private versus public. *European Financial Management*. 12(1). 57-80

Duta, S. and Jog, V. (2009). The long-term performance of acquiring firms: A re-examination of an anomaly. *Journal of Banking and Finance*. 33(8). 1400-1412

Eckbo, B.E. (1983). Horizontal, mergers, collusion, and stockholder wealth. *Journal of Financial Economics.* 11(1-4). 241-273

Eckbo, B.E., Maksimovic, Y. and Williams, J. (1990). Consistent estimation of cross-sectional models in event studies. *Review of Financial Studies*. 3(3). 343-365

Espenlaub, S., Gregory, A. and Tonks, I. (2000). Re-assessing the long-term under-performance of UK initial public offerings. *European Financial Management.* 6(3). 319-342

Faccio, M. and Masulis, R.W. (2005). The choice of payment method in European mergers and acquisitions. *Journal of Finance.* 60(3). 1345-1388

Faccio, M., McConell, J. and Stolin, D. (2006). Returns to acquirers of listed and unlisted targets. *Journal of Financial and Quantitative Analysis.* 41(1). 197-220

Fama, E.F. (1965). The behavior of stock market prices. *Journal of Business*. 38(1). 34-105

Fama, E.F., Fisher, L., Jensen, M.C. and Roll, R. (1969). The adjustment of stock prices to new information. *International Economics Review.* 10(1). 1-21

Fama, E.F. and Jensen, M.C. (1983a). Separation of ownership and control. *Journal of Law and Economics.* 26(2). 301-325

Fama, E.F. and Jensen, M.C. (1983b). Agency problems and residual claims. *Journal of Law and Economics.* 26(2). 327-349

Fama, E.F. (1998). Market efficiency, long-term returns and behavioral finance. *Journal of Financial Economics.* 49(3). 283-306

Fama, E.F. and French, K.R. (1992). The cross-section of expected stock returns. *Journal of Finance.* 47(2). 427-465

Fama, E.F. and French, K.R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics.* 33(1). 3-56

Fama, E.F. and French, K.R. (1995). Size and book-to-market factors in earnings and returns. *Journal of Finance.* 50(1). 131-155

Firth, M. (1980). Takeovers, shareholders return and the theory of the firm. *Quarterly Journal of Economics.* 94(2). 235-260

Fishman, M. (1989). Preemptive bidding and the role of the medium of exchange in acquisitions. *Journal of Finance.* 44(1). 41-57

Fowler, D. Rorke, C. H. and Jog, V. (1980). A bias-correcting procedure for beta estimation in the presence of thin trading. *Journal of Financial Research.* 12. 23-32

Franks, J.R, Harris, R.S. and Mayer, C. (1988). Means of payment in takeovers: Results for the United Kingdom and the United States. In Auerbach, A.J. (Ed.), *Corporate takeovers: Causes and consequences.* 221-258. Chicago: University of Chicago Press

Franks, J.R. and Harris, R.S. (1989). Shareholder wealth effects of corporate takeovers: The U.K. experiences 1955-1985. *Journal of Financial Economics.* 23(2). 225-249

Franks, J.R, Harris, R.S. and Titman, S. (1991). The postmerger share-price performance of acquiring firms. *Journal of Financial Economics.* 29(1). 81-96

Franks, J.R., Broyles, J.E. and Hecht, M.J. (1997). An industry study of the profitability of merger in the U.K. *Journal of Finance.* 32(5). 1513-1525

Fuller, K., Netter, J. and Stegemoller, M. (2002). What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *Journal of Finance*. 57(4). 1763-1793

Gaughan, P.A. (2002). *Mergers, acquisitions, and corporate restructurings.* 3rd ed. John Wiley, New York

Ghosh, A. and Ruland, W. (1998). Managerial ownership, the method of payment for acquisitions, and executive job retention. *Journal of Finance*. 53(2). 785–798

Ghosh, A. and Jain, P. C. (2000). Financial leverage changes associated with corporate mergers. *Journal of Corporate Finance.* 6(4). 377–402

Gilson, R.J., Scholes, M.S. and Wolfson, M.A. (1988). Taxation and the dynamics of corporate control: The uncertain case of tax-motivated acquisitions, in Coffe, J.C., Lowenstein, L. and Rose-Ackerman, S. (ED). *Knights, Raiders and Targets: The impact of the hostile takeover.* 271-199. Oxford University Press: New York

Goergen, M. and Renneboog, L. (2004). Shareholder wealth effects of European domestic and cross-border takeover bids. *European Financial Management.* 10(1). 9-45

Goergen, M., Khurshed,A. and Mudambi, R. (2007). The long-run performance of initial public offerings (IPOs): Can it be predicted? *Managerial Finance.* 33(6). 401-417

Gregory, A. (1997). An examination of the long run performance of UK acquiring firms. *Journal of Business Finance and Accounting.* 24(7/8). 971-1002

Gregory, A. (2005). The long run abnormal performance of UK acquirers and the free cash flow hypothesis. *Journal of Business Finance and Accounting.* 32(5&6). 777-814

Gregory, A. and McCorriston, S. (2005). Foreign acquisitions by UK limited companies: Short- and long-run performance. *Journal of Empirical Finance.* 12(1). 99-125

Griffin, J.M. and Lemmon, M.L. (2002). Book-to-market equity, distress risk, and stock returns. *Journal of Finance*. 57(5). 2317-2336

Gujarati, D.N. (1999) *Essential of Econometrics.* 2nd edition, New York, McGraw-Hill

Halpern, P. (1983). Corporate acquisitions: A theory of special cases? A review of event studies applied to acquisitions. *Journal of Finance*. 28(2). 297-317

Harris, R.S., Franks, J. and Mayer, C. (1987). Means of payment in takeovers: Results for the U.S. and U.K. *NBER working paper series.* Retrieved November 21, 2006, from http://www.ssrn.com

Harris, M. and Raviv, A. (1988). Corporate control contests and capital structure. *Journal of Financial Economics*. 20(1). 55–86

Hayn, C. (1989). Tax attributes as determinants of shareholders gains in corporate acquisitions. *Journal of Financial Economics*. 23(1). 121-153

Healy, P.M., Palepu, K.G. and Ruback, R.S. (1992). Does corporate performance improve after mergers? *Journal of Financial Economics*. 31(2). 135-175

Henderson, Jr.G.V. (1990). Problems and solutions in conducting event studies. *The Journal of Risk and Insurance.* 57(2). 282-306

Hitt, M., Ireland, R. and Hoskisson, R. (2005). *Strategic management: Competitiveness and globalization (concepts) 6th ed.* Mason, OH: Thompson-South-Western

Holland, K.M. and Hodgkinson, L. (1994). The pre-announcement share price behaviour of UK takeover targets. *Journal of Business Finance and Accounting.* 21(4). 467-488

Huang, Y.H. and Walking, R.A. (1987). Target abnormal returns associated with acquisition announcements: Payment, acquisition form, and managerial resistance. *Journal of Financial Economics*. 19(2). 329-349

Hull, R.M., Mazachek, J. and Ockree, K.A. (1998). Firm size, common stock offerings, and announcement period returns. *Quarterly Journal of Business and Economics.* 37(3). 3-24

Jakobsen, J.B. and Voetmann, T. (2003). Post-acquisition performance in the short and long run: Evidence from the Copenhagen Stock Exchange 1993-1997. *The European Journal of Finance.* 9(4). 323-342

Isa, M. and Lim, L.L. (1993). Share price behaviour around acquisition announcement in Malaysia. *Capital Market Review.* 1(2). 1-23

Isa, M. (1994). The effects of acquisition announcement and method of payment on shareholder returns in the Malaysian stock market. *Security Industry Review.* 20(1). 20-31

Isa, M. (2002). Reverse takeovers in Malaysia: Motives, regulations and market reaction. *Malaysian Journal of Economic Studies.* 39(1&2). 95-113

Isa, M. and Yap, C.M. (2003). Market reaction to merger announcement: The case of consolidation of the banking sector in Malaysia. *Proceedings of the Malaysia Finance Association 5th Annual Symposium.* Malaysia. 509-539

Ismail, Ahmad. (2008). Which acquirers gain more, single or multiple? Recent evidence from the USA market. *Global Finance Journal.* 19(1). 72-84

Jarrell, G.A., Brickley, J.A. and Netter, J.M. (1988). The market for corporate control: The empirical evidence since 1980. *Journal of Economics Perspectives.* 2(1). 49-68

Jarrell, G.A. and Poulsen, A.B. (1989). The returns to acquiring firms in tender offers: Evidence from three decades. *Financial Management.* 18(3). 12-19

Jensen, M.C (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review.* 76(2). 323-339

Jensen, M.C. (1988). Takeovers: Their causes and consequences. *Journal of Economics Perspectives.* 2(1). 21-48

Jensen, M.C. and Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial Economics*. 3(4). 305-360

Jensen, M.C. and Ruback, R.S. (1983). The market for corporate control: The scientific evidence. *Journal of Financial Economics.* 11(1-4). 5-50

Jung, Kooyul., Kim, Y.C. and Stulz, R.M. (1996). Timing, investment opportunities, managerial discretion, and the security issue decision. *Journal of Financial Economics.* 42(2). 159–185

Kawai, M (2001). East Asian Economic Recovery and Structural Reform, FASID Forum VIII, Challenges of Globalization for International Cooperation, Published by: Foundation Advanced Studies on International Development. 51-76

Kim, M.K. and Burnie, D.A. (2002). The firm size effect and the economic cycle. *Journal of Financial Research.* 25(1). 111-124

Koeplin, J., Sarin, A. and Shapiro, A.C. (2000). The private company discount. *Journal of Applied Corporate Finance.* 12(4). 94-101

Koh, Francis. and Lee, S. H., (1988). Risks and returns of acquiring and acquired firms in Singapore: An empirical analysis. *Asia Pacific Journal of Management.* 5(3). 157-183

Kothari, S.P. and Warner, J.B. (1997). Measuring long-horizon security price performance. *Journal of Financial Economics.* 43(3). 301-340

Kummer, D. and Hoffmeister, J.R. (1978). Valuation consequences of cash tender offer. *Journal of Finance*. 33(2). 505-516

Lakonishok, J. and Vermaelen, T. (1990). Anomalous price behavior around repurchase tender offers. *Journal of Finance.* 45(2). 455-477

Lang, H.P., Stulz, R.M. and Walking, R. (1989). Managerial performance, tobin's q, and the gains from successful tender offers. *Journal of Financial Economics.* 24(1). 137-154

Langetieg,T. (1978). An application of a three-factor performance index to measure stockholders gains from merger. *Journal of Financial Economics.* 6(4). 365-384

Leland, H. and Pyle, D. (1977). Information asymmetries, financial structure and financial intermediaries. *Journal of Finance*. 32(2). 371-387

Limmack, R.J. (1991). Corporate mergers and shareholder wealth effects: 1977-1986. *Accounting and Business Research.* 21(83). 239-251

Linn, S.C. and Switzer, J.A. (2001). Are cash acquisitions associated with better post combination operating performance than stock acquisitions? *Journal of Banking and Finance.* 25(6). 1113-1138

Lintner, J. (1965). The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets. *Review of Economics and Statistics.* 47(1). 13-37

Loderer, C. and Martin, K. (1990). Corporate acquisition by listed firms: The experience of a comprehensive sample. *Financial Management.* 19(4).17-33

Loderer, C. and Martin, K. (1992). Postacquisition performance of acquiring firms. *Financial Management.* 21(3). 69-79

Loughran, T. and Vijh, A.M. (1997). Do long-term shareholders benefit from corporate shareholders? *Journal of Finance.* 52(2). 765-791

Lyon, J. D., Barber, B. M. and Tsai, C. L. (1999). Improved methods for test of long-run abnormal stock returns. *Journal of Finance.* 54(1). 165-201

MacKinlay, C.A. (1995). Multifactor models do not explain deviations from the CAPM. *Journal of Financial Economics.* 38(1). 3-28

MacKinlay, C.A. (1997). Event studies in economics and finance. *Journal of Economics Literature.* 35(1). 13-27

Malatesta, P. (1983). The wealth effects of merger activity and the objective functions of merging firms. *Journal of Financial Economics*. 11(1-4). 155-181

Malaysia Economic Report (2000). Treasury Malaysia. Retrieved March 5, 2006, from http://www.treasury.gov.my

Malmendier, U. and Tate, G. (2008).Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics.* 89(1). 20-43

Mandelker, G. (1974). Risk and return: The case of merging firms. *Journal of Financial Economics.* 1(4). 303-335

Manne, H.G. (1965). Mergers and the market for corporate control. *Journal of Political Economy.* 73(2). 110-120

Mantecon, T. (2008). An analysis of the implications of uncertainty and agency problems on the wealth effects to acquirers of private firms. *Journal of Banking and Finance.* 32(5). 892-905

Markides, C.C. and Ittner, C.D. (1994). Shareholder benefits from corporate international diversification: Evidence from U.S. international acquisitions. *Journal of International Business Studies.* 25(2). 343-360

Martin, K.J. and McConnell, J.J. (1991). Corporate performance, corporate takeovers, and management turnover. *Journal of Finance*. 46(2). 671-687

Martin, K.J. (1996). The method of payment in corporate acquisitions, investment opportunities, and management ownership. *Journal of Finance*. 51(4).1227-1246

Marsh, P. (1979). Equity right issues and the efficiency of the UK stock market. *Journal of Finance.* 34(4). 839-862

Martynova, M., Oosting, S. and Renneboog, L. (2006). The long-term operating performance of European mergers and acquisitions. *ECGI - Finance Working Paper No. 137/2006.* Retrieved May 12, 2007, from http://www ssrn.com

Martynova, M. and Renneboog, L. (2006). The performance of the European market for corporate control: Evidence from 5th takeover wave. *ECGI-Finance Working Paper No. 135/2006.* Tilburg University, the Netherlands

Martynova, M. and Renneboog, L. (2008). A century of corporate takeovers: What have we learned and where do we stand? *Journal of Banking and Finance.* 32(10)**.** 2148–2177

Mat-Nor, Fauzias. (1992). Corporate takeover and market efficiency: The Malaysian experience. *Jurnal Pengurusan.* 11. 75-94

Mat-Nor, Fauzias. (1993a). The effects of acquisition announcement on the security prices of bidding and target firms: The Malaysian experience. *Irish Business and Administrative Research*. 14(2). 114 –126

Mat-Nor, Fauzias. (1993b). Acquisition Announcement and stock price behaviour: The Malaysian experience. *Jurnal Pengurusan.* 12. 85-109

Mat-Nor, Fauzias. and Muhamed, Hisham. (2003). Effect of mergers and acquisitions on efficiency of banking institutions in Malaysia: A DEA approach. *Proceedings of the Malaysia Finance Association 5th Annual Symposium.* Malaysia. 351-360

Mat-Nor, Fauzias. (2004). A note on market reactions on the choice between equity and cash: evidence from bidder's return on takeovers by non banking and banking sector. *Proceedings of the Malaysia Finance Association 6th Annual Symposium.* Malaysia. 56-68

Mat-Nor, Fauzias. and Ismail, Razali. (2006). Direct takeovers, privately-held targets and methods of payment: Evidence of bidder`s return on takeovers. *Jurnal Pengurusan*. 25. 19-45

Miller, M.H. (1977). Debt and taxes. *Journal of Finance*. 32(2). 261-275

Mitchell, M.L. and Stafford, E. (2000). Managerial decisions and long-term stock performance. *Journal of Business.* 73(3). 287-329

Modigliani, F. and Miller, M. H. (1958**).** The cost of capital, corporation finance and the theory of investment**.** *The American Economic Review*. 48(3). 261-297

Moeller, S.B., Schlingemann, F.P. and Stulz, R.M. (2004). Firm size and the gains from acquisitions. *Journal of Financial Economics.* 73(2). 210-228

Moeller, S.B., Schlingemann, F.P. and Stulz, R.M. (2005). Wealth destruction on a massive scale? A study of acquiring-firms returns in the recent merger wave. *Journal of Finance.* 60(2). 757-782

Moeller, S.B., Schlingemann, F.P.(2005). Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions. *Journal of Banking and Finance.* 29(3). 533-564

Morck, R., Shleifer, A. and Vishny, R.W. (1990). Do managerial objectives drive bad acquisitions? *Journal of Finance*. 45(1). 31-48

Myers, S.C. (1984). The capital structure puzzle. *Journal of Finance*. 39(3). 575-592

Myers, S.C. and Majluf, N.J. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*. 13(2). 187-221

Myers, S.C. (2001). Capital structure. *Journal of Economics Perspective*. 15(2). 81-102

Nurwati A, Ahmad-Zaluki., Campbell, K. and Goodacre, A. (2007). The long run share price performance of Malaysian initial public offerings (IPOs). *Journal of Business Finance and Accounting.* 34(1-2). 78-110

Nur-Adiana, H.A. (1997). A cross-sectional analysis between the effects of right issue announcements and its determinants. *Capital Market Review*. 5(1). 1-22

Officer, M.S. (2007). The price of corporate liquidity: Acquisition discounts for unlisted targets. *Journal of Financial and Economics.* 83(3). 571-598

Palepu, K. (1986). Predicting takeover targets: A methodological and empirical analysis. *Journal of Accounting and Economics.* 8(1). 3-35

Patell, J. (1976). Corporate forecasts of earnings per share and stock price behavior: Empirical tests. *Journal of Accounting Research.* 14(2). 246-276

PricewaterhouseCoopers. (2004, June). *Stepping on the investment accelerator*. (Asia-Pacific M&A Bulletin: June 2004). Malaysia

PricewaterhouseCoopers. (2004, December). *Full steam ahead*. (Asia-Pacific M&A Bulletin: Year-ended 2004). Malaysia

PricewaterhouseCoopers. (2005, June). *Optimism takes root*. (Asia-Pacific M&A Bulletin: June 2005). Malaysia

PricewaterhouseCoopers. (2005, December). *Up, up and abroad*. (Asia-Pacific M&A Bulletin: Year ended 2005), Malaysia

PricewaterhouseCoopers. (2006, May). *Malaysia M&A outlook.* (PWC Alert: Issue 49). Malaysia

PricewaterhouseCoopers. (2006, June). *Setting the pace for an outstanding year*. (Asia-Pacific M&A Bulletin: June 2006). Malaysia

PricewaterhouseCoopers. (2006, December). *Reaching new highs*. (Asia-Pacific M&A Bulletin: Year-ended 2006). Malaysia

PricewaterhouseCoopers. (2007, March). *A spectacular M&A year for Malaysia.* (PWC Alert: Issue 57). Malaysia

PricewaterhouseCoopers. (2008, March). *Steaming into Choppy Waters*. (Asia-Pacific M&A Bulletin: Year-ended 2007). Malaysia

Private companies' statistics. (2007). *Companies Commission of Malaysia*, Malaysia. Retrieved December 10, 2007, from http://www.ssm.com.my

Pryor, F.L. (2001). Dimensions of the worldwide merger boom. *Journal of Economic Issues.* 35(4). 825-840

Rau, P.R. and Vermaelen, T. (1998). Glamour, value and the post-acquisition performance of acquiring firms. *Journal of Financial Economics.* 49(2). 223-253

Ritter, J.R. (1991). The long-run performance of initial public offerings. *Journal of Finance.* 46(1). 3-27

Rodrigues, V. (2003). Takeover bids: Evidence from the Portuguese market. *Portuguese Economic Journal.* 2(3). 145-171

Roll, R. (1986). The hubris hypothesis of corporate takeovers. *Journal of Business.* 59(2). 197-216

Rutledge, R.W., Zhang, Z.H, and Karim, K. (2008). Is there a size effect in the pricing of stocks in the Chinese stock markets? The case of bull versus bear markets. *Asia-Pacific Financial Markets.* 15(2). 117-133

Scholes, M. and William, J.T. (1977). Estimating betas from nonsynchronous data. *Journal of Financial Economics.* 5(3). 309-327

Schwert, G.W., (1996). Markup pricing in mergers and acquisition. *Journal of Financial Economics.* 41(2). 153-162

Securities Commission Act 1993, (Act 498) and Regulations and Rules and Malaysian Code on Takeovers and Mergers, Compiled by Legal Research Board. International Law Book Services, 2005

Securities Commission of Malaysia (n.d.).The *Malaysian Code on Takeovers and Mergers (Amendment) 2004 and its practice notes*. Retrieved August 16, 2006, from http://www.sc.com.my

Servaes, H. (1991). Tobin's q and the gains from takeovers. *Journal of Finance.* 46(1). 409-419

Seth, A. (1990). Value creation in acquisitions: A re-examination of performance issues. *Strategic Management Journal.* 11(2). 99-115

Seth, A., Song, K. and Pettit, R. (2000). Synergy, materialism or hubris? An empirical examination of motives for foreign acquisitions for US firms. *Journal of International Business Studies.* 31(3). 387-405

Shleifer, A. and Vishny, R.W. (1988). Value maximization and the acquisition process. *Journal of Economic Perspective.* 2(1). 7-20

Shleifer, A. and Vishny, R.W. (1989). Managerial entrenchment: the case of manager-specific investment. *Journal of Financial Economics.* 25(1). 123-139

Shleifer, A. and Vishny, R.W. (2003). Stock market driven acquisitions. *Journal of Financial Economics.* 70(3). 295-311

Strong, N. (1992). Modelling abnormal returns: A review articles. *Journal of Business Finance and Accounting.* 19(4). 533-553

Stulz, R.M. (1988). Managerial control of voting rights: Financing policies and the market for corporate control. *Journal of Financial Economics.* 20(1-2). 25-55

Sudarsanam, P.S., Holl, P. and Salami, a. (1996). Shareholders wealth gains in mergers: Effect of synergy and ownership structure. *Journal of Business Finance and Accounting.* 23(5 & 6). 673-698

Sudarsanam, P.S. and Mahate, A.A. (2003). Glamour acquirers, method of payment and post acquisition performance: The UK evidence. *Journal of Business Finance and Accounting.* 30(1-2). 299-341

Sudarsanam, P.S. and Mahate, A.A. (2006). Are friendly acquisitions too bad for shareholders and managers? Long term value creation and top management turnover in hostile and friendly acquirers. *British Journal of Management*. 17(s1). s7-s30

Suk, David, Y. and Sung, H.M. (1997). The effects of the method of payment and the type of offer on target returns in mergers and tender offers. *The Financial Review*. 32(3). 591-607

Travlos, N. (1987). Corporate takeover bids, methods of payment, and bidding firms' stock returns. *Journal of Finance*. 42(4). 943-963

Travlos, N. and Papaionnou, G. (1991). Corporate acquisitions: Method of payment effects, capital structure effects, and biddings firms' Stock returns. *Quarterly Journal of Business and Economics.* 30(4). 3-22

Tuch, C. and O'Sullivan, N. (2007). The impact of acquisitions on firm performance: A review of the evidence. *International Journal of Management Reviews.* 9(2). 141-170

Vasicek, O. (1973). A note on using cross-sectional information in Bayesian estimation of security betas. *Journal of Finance.* 28(5). 1233-1239

Walker, M. (2000). Corporate takeovers, strategic objectives and acquiring firm shareholders wealth. *Financial Management.* 29(1). 53-66

Wansley, J., Lane, W. and Yang, H. (1983). Abnormal returns to acquired firms by type of acquisition and method of payment. *Financial Management*. 12(3). 16-22

Wansley, J., Lane, W. and Yang, H. (1987). Gains to bidder firms in cash and securities transactions. *The Financial Review.* 22(4). 403-414

Weston, J.F., Siu, J, A.S. and Johnson, B. (2001). *Takeovers, restructuring, and corporate governance.* 4th ed. Prentice Hall, New Jersey

Weston, J.F., Mitchell, M.L. and Mulherin, J.H. (2004). *Takeovers, restructuring, and corporate governance.* 3rd ed. Prentice Hall, New Jersey

Yuce, A. and Ng, Alex (2005). Effects of public and public Canadian mergers. *Canadian Journal of Administrative Services.* 22(2). 111-124

APPENDIX A: Regulatory Framework of Takeovers and Mergers

Takeovers bids, mergers and the substantial acquisition of shareholding of public companies were one of the earliest areas of security market activities to be regulated in Malaysia. The main regulatory authorities are the Securities Commission, Foreign Investment Committee (FIC), and Bursa Malaysia.[14] The function of all of these bodies is mainly concerned with inspecting the business of exchange participants, monitoring their compliance with conduct rules, information transparency and fair treatment of all parties involved in the process of takeovers and merger transactions.

A takeover or merger proposal invariably requires the approval of one or several of the regulatory bodies, aside from the approval of the shareholders. They are:

a. The Malaysian Code on Takeovers and Mergers 1998 in accordance with Securities Commission Act 1993, Section 33A (The Code),
b. The Capital Issues Committee guidelines (The CIC Guideline),
c. The Foreign Investment Committee (The FIC), and
d. Bursa Malaysia.

However, not all the above approvals are a must for every merger and acquisition or takeover transaction. Acquisition by cash and those acquisitions involving unlisted firms do not require the approval of the Securities Commission. The Foreign Investment Committee is required for acquisitions amounting to more than RM10 million, whether satisfied by cash or shares or both. The functions of these authorities and bodies in relation to the takeovers or merger are discussed in detail in the remainder of this section.

[14] Also known as the Malaysian stock exchange.

1. The Malaysian Code on Takeovers and Mergers 1998 (The Code)

The Malaysian Code on Takeovers and Mergers 1998 (amendment at 2004), which is referred to as the "Code" is the principal rule governing Malaysian takeovers and mergers. The aim of the Code is to provide an orderly framework when takeover activity is conducted. The first version of the Malaysian Code on Takeovers and Mergers came into force on 1 April 1987, which is the oldest part of the current securities regulatory framework. This reflects that effective takeover and merger regulation is critical to the promotion of investor confidence in the fairness, efficiency, and orderliness of the securities market.

Prior to 1993, takeovers and mergers were regulated by the Panel on Takeovers and Mergers under Section 179 of the Companies Act 1965. After March 1993, upon the coming into force of the Securities Commission Act 1993, the functions of the Panel on Takeovers and Mergers were absorbed by the Securities Commission. The rationale for the change was to have transparent regulation by a single authority and to enhance standards of practice by market participants and professionals. Moreover, to ensure adequate protection is given to those who invest in the securities of public firms and in the securities market.

From time to time, The Code will be revised, which takes into account changes in the market and business practices. The Code is mainly administered by the Executive, which is made up of full-time professionals of the Securities Commission who regulate takeovers and mergers as part of their duties. The Executive conducts investigations, monitors takeover and merger dealings and rules on all matters before and during takeovers.

The Malaysian Code on Takeovers and Mergers has similar standards and practices to Codes in other jurisdictions, namely, in London, Hong Kong and Singapore. Unlike the London City Code (the London Code), the Code of Malaysia is statutory; it is enforceable in the courts, creates rights between parties, and breaches constitute an offence. Although, the Code is modelled upon the London City Code on Takeovers and Mergers, the Malaysian Code operates in a very different way, which takes into account changes in the market and business practices in the Malaysian environment.

The London code's principal objective is to regulate the proposed takeover offer, which in many cases is hostile in nature. In contrast, the majority of Malaysian listed companies are highly concentrated, with most companies firmly controlled by a single shareholder or by a group of shareholders (often a family group) acting in concert. Therefore, a change of control in such firms through private agreement with shareholders is almost invariably achieved. As a result, unlike the UK, most listed companies are not vulnerable to hostile takeover bids that seek to acquire control of a target firm. These are indeed still rare in the Malaysian market, and this explains the relatively common occurrence of mandatory offers in Malaysia.

The provisions of the Code are for the general principles of conduct, which should be observed in any takeover, acquisition or merger transaction. The general principles are summarized as follows:

(1) To provide fair and equal treatment to all shareholders.

(2) If control of a public company changes or is acquired or consolidated, a general offer to all other shareholders is required. The Code defines "control" as a

holding of 33% or more of the voting rights of a public company. The acquirer is obligated to make a mandatory offer to all remaining shareholders.

(3) During the course of an offer,[15] or when an offer is in contemplation, information must be furnished to all shareholders.

(5) The documents or advertisements issued in relation to takeovers and mergers should be prepared with the highest degree of care and accuracy possible.

(6) The persons[16] involved in takeovers and mergers should make full and timely disclosure of all relevant information to avoid the creation of a false market.

(7) The rights of control should be exercised in good faith and the oppression of minority or non-controlling shareholders is unacceptable.

(8) All parties concerned are required to cooperate with the takeover and merger Executive, and to provide all relevant information.

The Code applies to all public listed companies that are listed on Bursa Malaysia or incorporated in Malaysia. It also applies to a takeover of a private company that has either shareholders' funds or a paid-up capital of RM10 million or more, or where the purchase consideration is RM20 million or more for the voting shares over a period of 12-months before the date of written notice and announcement. For those who wish to take advantage of the securities markets in Malaysia, it is required that they should conduct themselves in matters relating to takeovers and mergers in accordance with the Code.

[15] An offer is legal term which mean takeover or merger or acquisition offer.
[16] In the Code, person includes individual and company.

1.1 Mode of Takeover Offers

1. Mandatory General Offer

A mandatory offer is carried out to fulfil the regulatory obligation when the acquirer obtains control of the target company. Part II of the Code requires that a person or company must make a mandatory general offer to all other shareholders in the following situations:

1. If a person acquires 33% or more of the voting shares of the company.
2. If a person who holds more than 33% but less than 50% of the voting shares of a company and thereafter acquires more additional voting rights that increases his or her holdings of voting rights by more than 2% during the immediately preceding six-month period.

The situation of item (1) is also known as the "threshold" or "trigger point" for a mandatory general offer. This means that if a person wants to take more than 33% shares in another company, they have to take over all shares held by the minority shareholders at the same price offered to the controlling shareholders. This trigger point is relatively high compared with 20% in the UK and 25% in Singapore.

The situation of item (2) implies that a controlling shareholder who own 33% or more voting rights of the company may buy up to another 2% in six-months with no need to make a mandatory offer obligation. This is also called "creeper". The creeper is to help the controlling shareholders fight against any potential hostile takeover by rapidly buying stocks in the market at a premium for strengthening his/her control. The Securities Commission states the 2% creeper scope in the

Malaysian market, which seems quite an emphasis to ensure a competitive market for corporate control.

2. Reverse Takeover – "Back-door" Listing

The Securities Commission defines reverse takeover as a situation whereby a listed firm acquires other assets or businesses and, as a result, there is a change in the control of the listed firm through the introduction of a new dominant shareholder or group of shareholders. A reverse takeover may occur in a situation where a listed firm acquires unlisted assets or businesses either by way of cash (or issue of shares) and, as a result, there is a significant change in the business direction of the listed firm towards that of the acquired assets (Isa, 2002). The common end result is that the unlisted firm obtains an indirect listing through the listed firm; thus, a reverse takeover is also known as back-door listing. On 28 June 1993, the SC issued the reverse takeover rule for regulating reverse takeovers involving Second Board companies. The main concern of the regulation is to ensure that Second Board companies are not simply used as a convenient tool by companies otherwise unqualified for listing. The rule strictly requires that the SC's approval must be obtained for any reverse takeover involving Second Board companies. On 4 April 1994, these regulations were later expanded to cover the Main Board companies as well.

The following criteria will apply for reverse takeovers or backdoor listings:

(1) *Time criterion:* Reverse takeovers are only allowed for companies that have been admitted to the Main Board or Second Board for a period of at least two years;

(2) *Profit record:* If the new assets to be acquired are complementary in nature to the existing assets of the listed company, the new assets should already be income-generating with a satisfactory profit record in a period of between one to two years. This condition applies to Main Board and Second Board listings.

(3) *Profit projection:* The future profit trend of the assets acquired should have a steady growth over the projected period and this acquisition should not result in a decline in the earnings of the listed company. This condition applies to both boards of listing.

(4) *Shareholding spread:* At least 25% of the issued and paid-up capital of the listed public company after the acquisition should be in the hands of the public.

The Securities Commission requires that all announcements in relation to reverse takeovers or back-door listing should be timely and based on full disclosure of relevant information. The announcements should include but not be limited to the above information presently required under the listing requirements of Bursa Malaysia and the Securities Commission.

3. Partial Offers

Partial offer means a voluntary takeover offer, Part III of the Code states that unless otherwise approved by the Securities Commission in writing, no person shall make a partial offer. The offer must acquire the same percentage of voting right shares to which the takeover offer relates from all offeree shareholders. Where an offeror makes a partial offer that would result in the offeror, and any person acting in concert with the offeror, holding in aggregate more than 33% but not more than 50%

of any class of voting shares of the offeree[17], by means of the partial offer, the offeror must state in the offer document the number of such voting shares offered to be acquired in the takeover offer.

In examining an application of a partial offer, the Securities Commission is concerned with the interest of the applicant against the interests of the minority shareholders. Where a partial offer will not result in a change of control, and the offeror is buying less than 33% of the public company by means of the partial offeror, the Securities Commission will normally approve the partial offer.

4. Method of Payment in an Offer

In light of the Code, an offeror must make an offer in cash or with a cash alternative in the condition of mandatory offer. When an offeror makes a share-for-share exchange offer, the offeror must provide additional information to the shareholders of the public company on its business, and financial and trading records including its published profit and loss accounts for the last five financial years.

5. Timing of the Offer

In a takeover situation, the moment the offeror proposes to carry out a mandatory or a voluntary offer, the offeror is required to announce and subsequently submit a written notice to the Securities Commission, Bursa Malaysia and the Board of Directors of the target company. The press will also be informed. The Board of Directors of the target company will then notify its shareholders of the potential takeover plan.

[17] "Offeree" and "offeror" are legal terms which mean target and acquirer, respectively.

Part VI of The Code requires that offer documents and other information in relation to the takeover offer issued by the offeror must be submitted to the Securities Commission within four days. An offer must be open for at least 21 days from the date the offer document is first posted in accordance with subsection 13(7). Where an offeror revises or is required to revise the offeror's takeover, the offeror shall keep the takeover offer open for acceptance for at least another fourteen days from the date of posting of the written notification of the revised takeover offer. Where a takeover offer has become or is declared unconditional, it must remain open for acceptance for not less than 14 days thereafter. An offer shall not be kept open after 60 days from the day of which the offer document is posted in accordance with subsection 13(7).

1.2 The Capital Issues Committee (CIC) Guidelines

The Capital Issues Committee was set up in June 1968 under the Ministry of Finance with the aim of being a watchdog for the investing public and to supervise the growth of the capital market. After March 1993, with the establishment of the SC and upon the coming into force of the Securities Commission Act 1993, the CIC was dissolved and the CIC guidelines were adopted as guidelines and rules of the Securities Commission for revaluing the securities of the target or the issue price of any new securities to be issued by public listed companies.

The CIC guideline sets down in relation to public company takeovers and mergers that they may be satisfied by a choice of cash, exchange of shares, or partly by cash and partly by the issues of shares. One of the functions of the CIC when examining takeover proposals is to examine the valuation of the securities of the participating

companies. The approval of the SC is compulsory for takeovers and mergers that involve an issue of shares by public companies. The CIC may also revalue the securities of the target or the issue price of any new securities to be issued.

1.3 The Foreign Investment Committee (FIC)

The FIC was established in February 1974 under the Prime Minister's department with the main function of implementing the Government's guidelines on the foreign acquisition of assets or any interests, mergers or takeovers of companies and businesses incorporated or registered in Malaysia. The government is very concerned with this particular matter because it has been observed that the acquisition of assets or interests has resulted in a greater concentration of wealth in the hands of a minority group and an increasing imbalance in ownership and control. The FIC committee is to ensure that the proposed takeover or merger has a balanced Malaysian participation in the ownership, and control of companies, and they should lead to net economic benefits in the light of the objectives of the New Economic Policy.

The FIC guidelines apply to any proposed acquisition of interest dealing with the acquisitions or disposal of assets or interest, and mergers or takeovers of companies and business. The guidelines apply specifically to the acquisition by foreigners as noted below:

- Any acquisition of 50% or more of the business or company in Malaysia or outside of Malaysia by local interests, regardless of whether the value is less than RM10 million;

- Acquisition of every 15% or more of the business or company in Malaysia by foreign interest, regardless of whether the value is less than RM10 million; or
- Acquisition of every 30% or more of the business or company in Malaysia by any associated or non-associated group of foreign interests, regardless of whether the value is less than RM10 million.

Although the above FIC guidelines are not statutory and have no force in law, compliance is a prerequisite.

1.4 Bursa Malaysia

Bursa Malaysia is one of the stock exchanges in Malaysia (formerly known as Kuala Lumpur Stock Exchange). Unlike the above mentioned regulatory bodies that were mandated by governmental authority, Bursa Malaysia is a self-regulatory organization with its own Memorandum and Articles of Association, and is operating on provisional rules, by-laws, listing requirements and a corporate disclosure policy to its members. During a merger or takeover deal Bursa Malaysia requires the timely disclosure of the accumulation of substantial shareholdings and of significant changes in them, thereby enabling the management of a listed company to determine the beneficial ownership of the company's shares. All the takeover, merger or acquisition deals involving the addition of shares to be listed on Bursa Malaysia require the approval of Bursa Malaysia.

Where new securities are issued by the acquirer or the target firm in an acquisition and takeover, the approval of Bursa Malaysia is required for the quotation and listing of the new shares. In addition all the public listed firms are also required to adhere to the information disclosure requirement as outlined in Part Five of the Listing Manual of Bursa Malaysia.

1.5 Disclosure Rule

The Code, CIC and FIC have certain requirements on the disclosures of interests. A person who acquires interest of 10% or more of the nominal value of a listed company's issue voting share capital must disclose such interest to Bursa Malaysia within five days. During the offer period, the offeror and the public company concerned must publicly disclose such dealings. The disclosure must be made in writing by the offeror, the public company concerned, and at the same time, it must also submit a copy to Bursa Malaysia.

APPENDIX B: Criteria for Selecting the KLSE CI Components Stocks

The KLSE CI[18] is based on a sample of stock listed on the KLSE. The selection of the component stock is based on six criteria, which are consistent with the board objectives of constructing the KLSE CI. These criteria are:[19]

(1) Companies listed on Bursa Malaysia, and their major business activities contribute significantly to the Malaysian economy. This criterion would, therefore, ensure that movements of the KLCI are generally reflective of changes in the Malaysian economy.

(2) Inactive companies, whose shares are not traded for more than three consecutive months, whether for reasons of suspension or inactivity, will be excluded.

(3) Companies with trading volumes less than 1000 lots (1 lot = 1,000 shares) per calendar year will be excluded unless suitable alternatives to maintain adequate sector representation are not available.

(4) The new listed companies will only be considered for inclusion after a minimum period of three months, which is to eliminate the distortion of the index through price volatility.

(5) Subsidiary companies, companies with a majority owned by any KLCI component company are excluded to minimize or avoid double counting or distortion of the weights used in the index.

(6) The methodology used to compute the KLCI, which considers any stock split, bonus issue, restructuring exercise, capital change, and effect of large and small capitalization of component stocks.

[18] The KLCI is now known as the FTSE Bursa Malaysia KLCI and the enhancements were implemented on Monday, 6 July 2009.

[19] Bursa Malaysia

An important objective of the KLCI is that the composition of the component stock must reflect the sectoral developments of the economy. This means that the index must not be unduly biased by the component stocks over-representing or under-representing certain sectors. The KLCI is constructed by using the market value of each component stock as the weight and the arithmetic mean as the method of averaging. Thus, the KLCI can be used as one of the leading indicators of the market portfolio.

APPENDIX C

Summary of samples

Panel A: Acquiring Firms

No.	Date Announcement	Acquiring Firms	Deal Value (RM million)	Industry	Method of Payment
1	31/07/2000	Malaysia Mining Corp Bhd	744,094	Trading/Services	Cash only
2	29/02/2000	United Engineering (M) Bhd.	360,921	Construction	Cash only
3	24/08/2000	Bandar Raya Developments Bhd	351,159	Properties	Cash only
4	10/07/2000	Bukit Katil Resources Bhd.	22,116	Plantation	Cash only
5	05/01/2000	Cement Industries of Malaysia Bhd.	78,624	Industrial Products	Cash only
6	05/06/2000	Gamuda Bhd.	67,997	Construction	Cash only
7	24/08/2000	Hap Seng Consolidated Bhd	105,000	Trading/Services	Cash only
8	21/03/2000	IOI Corporation Bhd.	18,000	Plantation	Cash only
9	12/05/2000	Kejora Harta Bhd	103,319	Properties	Cash only
10	16/05/2000	Kian Joo Can Factory Bhd.	13,750	Industrial Products	Cash only
11	08/12/2000	KPJ Healthcare Bhd	35,396	Trading/Services	Cash only
12	09/08/2000	Malaysian Oxygen Bhd	14,533	Trading/Services	Cash only
13	12/06/2000	OCB Bhd	64,548	Trading/Services	Cash only
14	03/03/2000	Perusahaan Otomobil Nasional Bhd	675,510	Consumer Products	Cash only
15	06/06/2000	Southern Steel Bhd	1,358,000	Industrial Products	Cash only
16	31/05/2000	Talam Corporation Bhd.	12,800	Properties	Cash only
17	26/06/2000	Tenggara Oil Bhd	29,500	Industrial Products	Cash only
18	09/10/2000	Techventure Bhd.	55,000	Industrial Products	Cash only
19	30/03/2000	The Store Corporation Bhd.	30,103	Trading/Services	Cash only
20	27/09/2000	YTL Cement Bhd	14,865	Industrial Products	Cash only
21	17/03/2000	Hirotako Hldgs Bhd	20,090	Industrial Products	Mixed
22	06/12/2000	Tongkah Hldgs Bhd	176,891	Trading/Services	Mixed
23	16/10/2000	Fourseason (M) Bhd	57,500	Industrial Products	Share only
24	23/02/2000	Quality Concrete Holdings Bhd	40,000	Industrial Products	Share only
25	15/08/2000	Texchem Resources Bhd	73,570	Trading/Services	Share only
26	28/02/2000	DRB-Hicom Bhd	1,043,740	Industrial Products	Share only
27	29/05/2000	IGB Corporation Bhd	644,820	Properties	Share only
28	14/05/2001	United Merchant Group Bhd	71,000	Trading/Services	Cash only
29	21/03/2001	Konsortium Logistik Bhd	180,768	Trading/Services	Share only
30	13/04/2001	Analabs Resources Bhd.	13,975	Trading/Services	Cash only
31	17/05/2001	Gamuda Bhd	71,600	Construction	Cash only
32	03/01/2001	Hap Seng Consolidated Bhd	111,000	Trading/Services	Cash only
33	16/03/2001	Loh & Loh Corporation Bhd	14,100	Construction	Cash only
34	22/03/2001	Magnum Corporation Bhd.	40,300	Trading/Services	Cash only
35	14/12/2001	OCB Bhd	54,433	Trading/Services	Cash only
36	01/11/2001	PJ Development Holdings Bhd	10,325	Properties	Cash only
37	04/05/2001	Road Builder (M) Holdings Bhd.	210,000	Construction	Cash only
38	13/07/2001	Subur Tiasa Holdgins Bhd	21,765	Industrial Products	Cash only
39	09/03/2001	Unza Holdings Bhd	63,000	Trading/Services	Cash only
40	15/10/2001	EG Ind Bhd	40,000	Industrial Products	Share only
41	20/06/2001	Boustead Properties Bhd	114,000	Plantation	Mixed
42	19/07/2001	Bonia Corporation Bhd.	11,600	Consumer Products	Mixed
43	17/01/2001	Hubline Bhd	140,000	Trading/Services	Mixed
44	08/02/2001	Berjaya Land Bhd	885,373	Trading/Services	Cash only
45	16/07/2001	IOI Corporation Bhd	535,893	Plantation	Cash only
46	21/05/2001	Talam Corp Bhd	658,853	Properties	Share only
47	28/02/2002	Hume Industries (Malaysia) Bhd	359,751	Industrial Products	Cash only
48	03/04/2002	Malaysian Oxygen Bhd	154,926	Industrial Products	Cash only
49	21/01/2002	M'sian Resources Corp Bhd	284,300	Construction	Share only
50	13/05/2002	Sunway Building Tech Bhd	195,235	Industrial Products	Cash only

Notes: Cash only (share only) are when 100% of the consideration is cash (share) offers; and mixed are combination of cash and share payment.

continued on next page

APPENDIX C

Summary of samples

Panel A: Acquiring Firms (continued)

No.	Date Announcement	Acquiring Firms	Deal Value (RM million)	Industry	Method of Payment
51	23/04/2002	United Plantations Bhd	440,635	Plantation	Mixed
52	07/01/2002	Amtek Hldgs Bhd	13,392	Consumer Products	Cash only
53	27/09/2002	Antah Hldgs Bhd	56,000	Trading/Services	Cash only
54	22/11/2002	Bandar Raya Developments Bhd	12,826	Properties	Cash only
55	04/12/2002	Computer Systems Advisers (M) Bhd	32,000	Technology	Cash only
56	03/05/2002	Ekran Bhd	155,295	Properties	Cash only
57	12/04/2002	Eng Teknologi Holdings Bhd	37,172	Technology	Cash only
58	19/06/2002	Gamuda Bhd	28,754	Construction	Cash only
59	23/05/2002	Hume Industries (M'sia) Bhd	50,000	Industrial Products	Cash only
60	11/01/2002	Ecofirst Consolidated Bhd	27,000	Trading/Services	Cash only
61	08/03/2002	KUB Malaysia Bhd	65,000	Trading/Services	Cash only
62	27/02/2002	Merger Housing Bhd	19,000	Properties	Cash only
63	21/06/2002	Matrix International Bhd	28,000	Properties	Cash only
64	29/05/2002	Malakoff Bhd	281,996	Trading/Services	Cash only
65	02/07/2002	Ramatex Bhd	24,201	Industrial Products	Cash only
66	27/12/2002	Ranhill Bhd.	54,350	Construction	Cash only
67	08/02/2002	Seal Incorporated Bhd	17,010	Industrial Products	Cash only
68	09/08/2002	Seacera Tiles Bhd	20,600	Industrial Products	Cash only
69	27/06/2002	SHL Consolidated Bhd	32,700	Properties	Cash only
70	27/12/2002	Sindora Bhd	17,589	Industrial Products	Cash only
71	04/04/2002	Stamford College Bhd	11,800	Trading/Services	Cash only
72	02/08/2002	Star Publication (M'sia) Bhd	27,300	Trading/Services	Cash only
73	08/02/2002	Telekom Malaysia Bhd	20,000	Trading/Services	Cash only
74	25/02/2002	United Merchant Group Bhd	65,389	Trading/Services	Cash only
75	03/09/2002	Avenue Resources Bhd	115,634	Trading/Services	Share only
76	31/07/2002	Ranhill Power Bhd	62,600	Industrial Products	Share only
77	19/12/2002	Konsortium Logistik Bhd	12,667	Trading/Services	Share only
78	21/06/2002	Permaju Industries Bhd	180,000	Industrial Products	Share only
79	08/04/2002	Tebrau Teguh Bhd	84,530	Properties	Mixed
80	31/01/2002	Audrey International (M) Bhd	50,000	Consumer Products	Mixed
81	04/03/2002	Road Buider (M) Holdings Bhd	101,399	Construction	Mixed
82	27/06/2002	Tronoh Mines M'sia Bhd	140,000	Industrial Products	Share only
83	21/01/2002	Lafarge Malayan Cement Bhd	216,684	Industrial Products	Cash only
84	28/02/2002	Magna Prima Bhd	40,000	Construction	Share only
85	18/02/2002	Island & Pennisular Bhd	500,000	Properties	Cash only
86	08/08/2003	Ancom Bhd	16,700	Industrial Products	Cash only
87	13/08/2003	Pan Malaysia Industries Bhd	375,199	Industrial Products	Cash only
88	29/09/2003	Petra Perdana Bhd	248,560	Trading/Services	Cash only
89	18/03/2003	Atlan Hldgs Bhd	29,853	Industrial Products	Cash only
90	12/05/2003	Cycle & Carriage Bintang Bhd.	30,263	Industrial Products	Cash only
91	29/07/2003	DKLS Industries Bhd	20,298	Construction	Cash only
92	17/11/2003	Faber Group Bhd	10,926	Trading/Services	Cash only
93	19/12/2003	Harvest Court Industries Bhd (HCIB)	18,000	Industrial Products	Cash only
94	30/06/2003	Hume Industries (Malaysia) Bhd	124,372	Industrial Products	Cash only
95	21/03/2003	Narra Ind Bhd	57,720	Industrial Products	Cash only
96	10/04/2003	Integrated Logistics Bhd	10,945	Trading/Services	Cash only
97	25/08/2003	MBM Resources Bhd	33,745	Trading/Services	Cash only
98	15/01/2003	Malaysian Resources Corp Bhd	88,001	Construction	Cash only
99	08/07/2003	Malakoff Bhd	835,000	Trading/Services	Cash only
100	25/09/2003	Puncak Niaga Holdings Bhd	38,010	Infrastructure	Cash only
101	21/01/2003	Sarawak Oil Palms Bhd.	63,600	Plantation	Cash only

Notes: Cash only (share only) are when 100% of the consideration is cash (share) offers; and mixed are combination of cash and share payment.

continued on next page

APPENDIX C

Summary of samples

Panel A: Acquiring Firms (continued)

No.	Date Announcement	Acquiring Firms	Deal Value (RM million)	Industry	Method of Payment
102	13/11/2003	SP Setia Bhd	106,250	Properties	Cash only
103	08/12/2003	Symphony House Bhd	200,000	Trading/Services	Cash only
104	10/06/2003	Texchem Resources Bhd.	16,200	Trading/Services	Cash only
105	24/07/2003	TH Group Bhd	43,000	Plantation	Cash only
106	07/01/2003	Tien Wah Press Hldgs Bhd	12,146	Industrial Products	Cash only
107	28/08/2003	M3nergy Bhd	61,000	Trading/Services	Cash only
108	09/12/2003	YTL Cement Bhd	138,000	Industrial Products	Share only
109	18/04/2003	AKN Technology Bhd	25,000	Technology	Share only
110	22/09/2003	Gopeng Bhd	152,011	Industrial Products	Share only
111	16/04/2003	Suiwah Corporation Bhd	18,783	Trading/Services	Share only
112	06/01/2003	Techventure Bhd.	32,000	Industrial Products	Share only
113	10/03/2003	Boustead Holdings Bhd	1,021,573	Plantation	Cash only
114	08/08/2003	Cosway Corp Bhd	244,177	Consumer Products	Cash only
115	21/10/2003	IGB Corporation Bhd	131,198	Properties	Cash only
116	17/01/2003	MMC Corp Bhd	68,021	Trading/Services	Cash only
117	15/01/2003	Sapura Technology Bhd	183,055	Technology	Cash only
118	26/09/2003	Island & Pennisular Bhd	401,545	Properties	Mixed
119	16/05/2003	Kulim (Malaysia) Bhd.	36,104	Plantation	Mixed
120	19/10/2004	OSK Property Holdings Bhd	138,561	Properties	Share only
121	02/04/2004	Sime Darby Bhd	421,852	Trading/Services	Share only
122	03/06/2004	Astral supreme Bhd.	19,380	Industrial Products	Cash only
123	19/03/2004	Johor Port Bhd	21,000	Industrial Products	Cash only
124	10/09/2004	Luster Industries Bhd	11,000	Industrial Products	Cash only
125	15/04/2004	MESB Bhd	36,000	Trading/Services	Cash only
126	12/10/2004	MTD Infraperdana Bhd	245,000	Trading/Services	Cash only
127	15/12/2004	The Store Corporation Bhd	15,167	Trading/Services	Cash only
128	13/10/2004	Tradewinds (M) Bhd	188,000	Consumer Products	Cash only
129	08/03/2004	Astino Bhd	45,000	Industrial Products	Share only
130	10/03/2004	Ornapaper Bhd	15,599	Industrial Products	Share only
131	16/07/2004	Degem Bhd.	14,400	Consumer Products	Mixed
132	26/07/2004	EP Manufacturing Bhd	105,000	Industrial Products	Mixed
133	31/05/2004	E & O Property Development Bhd	15,000	Properties	Mixed
134	06/05/2004	IJM Corp Bhd.	271,785	Construction	Cash only
135	20/05/2004	Naluri Bhd	104,037	Trading/Services	Cash only
136	25/11/2004	Lion Corporation Bhd	285,177	Industrial Products	Share only
137	22/12/2004	Padiberas Nasional Bhd	25,000	Trading/Services	Cash only
138	16/07/2004	YTL Cement Bhd	109,658	Industrial Products	Cash only
139	01/12/2004	Kumpulan Europlus Bhd	473,495	Construction	Share only

Notes: Cash only (share only) are when 100% of the consideration is cash (share) offers; and mixed are combination of cash and share payment.

continued on next page

APPENDIX C

Summary of samples (continued)

Panel B: Target Firms

No.	Date Announcement	Target Firms	Deal Value (RM million)	Industry	Method of Payment
1	31/07/2000	Malakoff Bhd	744,094	Trading/Services	Cash only
2	29/02/2000	Intria Bhd.	360,921	Construction	Cash only
3	24/08/2000	Multi-Purpose Holdings Bhd	351,159	Trading/Services	Cash only
4	10/03/2000	Ann Joo Steel	201,626	Industrial Products	Cash only
5	17/04/2000	HIL Industries Bhd	190,912	Industrial Products	Share only
6	28/02/2000	Hicom Hldgs Bhd.	1,043,740	Industrial Products	Share only
7	29/05/2000	Goldis Bhd	644,820	Properties	Share only
8	21/03/2001	Pelikan International Corp Bhd	180,768	Trading/Services	Share only
9	24/05/2001	Pos Malaysia & service Holding Bhd	800,000	Trading/Services	Share only
10	08/02/2001	Matrix International Bhd	885,373	Consumer Products	Cash only
11	16/07/2001	Palmco Holdings Bhd	535,893	Industrial Products	Cash only
12	21/05/2001	Kumpulan Europlus Bhd	658,853	Properties	Share only
13	27/03/2002	Lion Industries Corp Bhd	1,503,005	Industrial Products	Cash only
14	04/10/2002	Southern Steel Bhd	132,321	Industrial Products	Cash only
15	28/02/2002	Narra Industries Bhd	359,751	Industrial Products	Cash only
16	03/04/2002	Nissan-Industrial Oxygen Bhd	154,926	Industrial Products	Cash only
17	21/01/2002	The New Straits Times Press Bhd	284,300	Trading/Services	Share only
18	13/05/2002	Dolomite Corp Bhd	195,235	Construction	Cash only
19	18/02/2002	Austral Enterprises Bhd	500,000	Industrial Products	Cash only
20	08/08/2003	Eastern & Oriental Bhd.	16,700	Properties	Cash only
21	13/08/2003	Metrojaya Bhd	375,199	Trading/Services	Cash only
22	29/09/2003	UEM Builder Bhd	248,560	Construction	Cash only
23	10/03/2003	Kuala Sidim Bhd	1,021,573	Industrial Products	Cash only
24	08/08/2003	Unza Holdings Bhd	244,177	Trading/Services	Cash only
25	21/10/2003	Krisassets Holdings Bhd	131,198	Industrial Products	Cash only
26	15/01/2003	Sapura Crest Petroluem Bhd	183,055	Industrial Products	Cash only
27	26/09/2003	Negara Properties (M) Bhd	401,545	Properties	Mixed
28	29/08/2003	Tradewinds (M) Bhd	687,125	Consumer Products	Share only
29	02/04/2004	Hyundai Sime Darby Bhd	421,852	Industrial Products	Share only
30	06/05/2004	Industrial Concrete Products Bhd	271,785	Industrial Products	Cash only
31	25/11/2004	Amalgamated Containers Bhd	285,177	Industrial Products	Share only
32	01/12/2004	Talam Corporation Bhd	473,495	Properties	Share only

Notes: Cash only (share only) are when 100% of the consideration is cash (share) offers; and mixed are combination of cash and share payment.

APPENDIX D – Acquiring Firm's Beta

No.	Acquiring Firms	Pre-period (Day -31 to day -130)		Post-period (Day +31 to day +130)	
		OLS Beta	SW Beta	OLS Beta	SW Beta
1	Malaysia Mining Corp Bhd	0.2646	0.6360	0.4333	0.9104
2	United Engineering (M) Bhd.	-0.1969	-0.1880	-0.3265	-0.4634
3	Bandar Raya Developments Bhd	0.4511	0.1621	0.6283	0.7431
4	Bukit Katil Resources Bhd.	1.0151	1.0209	1.4267	1.6546
5	Cement Industries of Malaysia Bhd.	2.0612	2.0568	2.0578	2.0649
6	Gamuda Bhd.	1.1395	1.2080	1.1134	1.3145
7	Hap Seng Consolidated Bhd	1.3674	1.1830	2.0527	2.0436
8	IOI Corporation Bhd.	-0.0928	-0.0866	-0.0683	-0.0372
9	Kejora Harta Bhd	1.2114	1.3536	1.1812	1.2827
10	Kian Joo Can Factory Bhd.	1.0356	1.0347	1.1467	1.1371
11	KPJ Healthcare Bhd	1.0425	1.0693	1.0156	1.0121
12	Malaysian Oxygen Bhd	1.0560	1.0887	1.1255	1.1229
13	OCB Bhd	0.1096	0.1859	0.2820	0.3576
14	Perusahaan Otomobil Nasional Bhd	-0.1318	-0.0919	-0.2121	-0.2027
15	Southern Steel Bhd	0.1367	0.1380	0.2442	0.2647
16	Talam Corporation Bhd.	0.6776	0.9582	0.1331	0.3289
17	Tenggara Oil Bhd	0.2660	0.2566	0.6245	0.7033
18	Techventure Bhd.	2.1471	2.1861	2.0477	2.0771
19	The Store Corporation Bhd.	1.1549	1.1619	1.0354	1.0454
20	YTL Cement Bhd	1.3937	1.5497	1.1514	1.1867
21	Hirotako Hldgs Bhd	1.1742	1.1627	1.1574	1.1587
22	Tongkah Hldgs Bhd	0.5811	0.9916	0.3532	0.7621
23	Welli Multi Corp Bhd	0.4141	0.6239	0.3613	0.4786
24	Quality Concrete Holdings Bhd	1.1984	1.1397	1.1366	1.1443
25	Texchem Resources Bhd	1.4237	1.2770	1.1069	1.2986
26	DRB-Hicom Bhd	-0.3898	-0.4888	-0.1781	-0.2990
27	IGB Corporation Bhd	0.4271	0.5198	0.4184	0.4542
28	United Merchant Group Bhd	1.0677	1.0672	1.1220	1.4723
29	Konsortium Logistik Bhd	-0.5801	-0.7230	-0.2014	-0.4369
30	Analabs Resources Bhd.	-0.0532	-0.0305	0.0841	0.0669
31	Gamuda Bhd	0.1101	0.1200	0.0965	0.1034
32	Hap Seng Consolidated Bhd	1.0341	1.0460	1.2282	1.1744
33	Loh & Loh Corporation Bhd	1.0965	1.0969	1.0607	1.0661
34	Magnum Corporation Bhd.	1.0362	1.0508	1.0303	1.0379
35	OCB Bhd	1.0383	1.0386	1.2652	1.3776
36	PJ Development Holdings Bhd	1.1862	1.3998	1.0732	1.1568
37	Road Builder (M) Holdings Bhd.	-0.0801	-0.1132	-0.2573	-0.4416
38	Subur Tiasa Holdgins Bhd	-0.0816	-0.1057	-0.0580	-0.1113
39	Unza Holdings Bhd	-0.0643	-0.1721	-0.0891	-0.0691
40	EG Ind Bhd	1.0394	1.0715	1.0434	1.1317
41	Boustead Properties Bhd	1.0571	1.0424	1.2770	1.3029
42	Bonia Corporation Bhd.	1.0845	1.2025	1.3366	1.8567
43	Hubline Bhd	1.2417	1.1490	1.0739	2.0267
44	Berjaya Land Bhd	1.0329	1.0491	1.3949	1.6741
45	IOI Corporation Bhd	2.0158	2.0678	2.0371	2.0270
46	Talam Corp Bhd	2.0486	2.0605	2.1637	2.2529
47	Hume Industries (Malaysia) Bhd	0.8180	0.4140	0.6644	0.2115

Notes: OLS refers to Ordinary least square and SW refers to the Scholes-Williams (1977) estimation of beta with one lead and one lag adjustment. Separate beta is estimated pre- and post-announcement from day -130 to day -31 and from day 31 to day 130, respectively.

continued on next page

Appendix D: Acquiring Firm's Beta (continued)

No.	Acquiring Firms	Pre-period (Day -31 to day -130)		Post-period (Day +31 to day +130)	
		OLS Beta	SW Beta	OLS Beta	SW Beta
48	Malaysian Oxygen Bhd	0.8990	0.7459	1.1803	1.1715
49	M'sian Resources Corp Bhd	1.1865	1.0412	1.4196	1.4368
50	Sunway Building Tech Bhd	-0.3701	-0.5271	1.5204	1.7571
51	United Plantations Bhd	0.3019	0.3612	0.4433	0.3400
52	Amtek Hldgs Bhd	1.2322	1.0653	1.1051	1.1369
53	Antah Hldgs Bhd	1.5434	1.3521	1.8280	1.5987
54	Bandar Raya Developments Bhd	0.6144	0.5259	0.6404	0.2226
55	Computer Systems Advisers (M) Bhd	0.9229	0.4119	1.6602	1.1402
56	Ekran Bhd	1.1216	1.0304	1.0133	1.1426
57	Eng Teknologi Holdings Bhd	0.6901	0.7330	0.5222	0.4004
58	Gamuda Bhd	0.9238	0.7056	1.1932	0.9798
59	Hume Industries (M'sia) Bhd	0.4600	0.3457	0.9679	1.2580
60	Ecofirst Consolidated Bhd	1.0470	1.0396	1.0514	1.0691
61	KUB Malaysia Bhd	2.4034	2.5660	1.8642	1.9646
62	Merger Housing Bhd	0.7268	0.4382	1.1992	1.1739
63	Matrix International Bhd	0.4862	0.6166	1.0011	1.0464
64	Malakoff Bhd	0.5705	0.3497	0.5566	0.4927
65	Ramatex Bhd	-0.1838	-0.1420	0.5860	0.5014
66	Ranhill Bhd.	0.6410	0.6098	0.4397	0.7031
67	Seal Incorporated Bhd	1.1140	1.0860	1.0835	1.0903
68	Seacera Tiles Bhd	-0.5285	-0.8206	-0.0849	-0.1037
69	SHL Consolidated Bhd	0.4574	0.3211	0.6919	0.5763
70	Sindora Bhd	0.8719	0.6325	1.0621	1.0451
71	Stamford College Bhd	0.7483	0.6003	0.3352	0.5809
72	Star Publication (M'sia) Bhd	0.4414	0.4672	0.6658	0.5342
73	Telekom Malaysia Bhd	1.1337	0.7985	1.2338	1.1031
74	United Merchant Group Bhd	1.0447	0.6192	1.3763	1.1134
75	Avenue Resources Bhd	2.1079	2.0740	2.2853	2.2122
76	Ranhill Power Bhd	0.7204	0.5182	0.4669	0.3361
77	Konsortium Logistik Bhd	1.2173	1.6723	1.0732	1.4403
78	Permaju Industries Bhd	0.1520	0.3990	0.5753	0.5922
79	Tebrau Teguh Bhd	1.2575	1.0311	0.8908	1.1925
80	Audrey International (M) Bhd	0.6701	1.1817	0.5753	0.7561
81	Road Buider (M) Holdings Bhd	0.5087	0.8568	0.9664	1.2019
82	Tronoh Mines M'sia Bhd	0.3806	0.6921	0.3566	0.3825
83	Lafarge Malayan Cement Bhd	1.1133	1.2699	1.1370	1.3145
84	Magna Prima Bhd	1.2499	1.1074	1.1406	1.1023
85	Island & Pennisular Bhd	0.5449	0.5044	0.2645	0.3259
86	Ancom Bhd	0.6534	0.3067	0.5334	0.4050
87	Pan Malaysia Industries Bhd	0.8465	0.7705	0.9119	1.6629
88	Petra Perdana Bhd	0.5635	0.7443	1.0875	1.6207
89	Atlan Hldgs Bhd	1.1474	1.2189	2.0483	2.0514
90	Cycle & Carriage Bintang Bhd.	-0.0086	-0.0042	-0.1198	-0.2196
91	DKLS Industries Bhd	1.3479	1.0916	1.6444	1.3974
92	Faber Group Bhd	1.0769	1.8259	1.1142	1.6968
93	Harvest Court Industries Bhd (HCIB)	1.2919	1.2228	1.5204	1.7035

Notes: OLS refers to Ordinary least square and SW refers to the Scholes-Williams (1977) estimation of beta with one lead and one lag adjustment. Separate beta is estimated pre- and post-announcement from day -130 to day -31 and from day 31 to day 130, respectively.

continued on next page

APPENDIX D: Acquiring Firm's Beta (continued)

No.	Acquiring Firms	Pre-period (Day -31 to day -130)		Post-period (Day +31 to day +130)	
		OLS Beta	SW Beta	OLS Beta	SW Beta
94	Hume Industries (Malaysia) Bhd	0.5013	0.3980	0.5845	0.9400
95	Narra Ind Bhd	0.2168	0.4734	0.3939	0.3423
96	Integrated Logistics Bhd	0.7541	0.5299	0.8917	0.6096
97	MBM Resources Bhd	1.2721	1.1226	1.1173	1.1407
98	Malaysian Resources Corp Bhd	1.3970	1.1349	1.8398	1.5176
99	Malakoff Bhd	1.0958	1.1084	1.7971	1.1119
100	Puncak Niaga Holdings Bhd	0.9351	0.5619	1.5184	1.2889
101	Sarawak Oil Palms Bhd.	0.6475	0.8835	1.0166	1.1211
102	SP Setia Bhd	1.3019	1.4403	1.6646	1.6017
103	Symphony House Bhd	1.4294	0.9113	1.4498	1.6634
104	Texchem Resources Bhd.	1.0413	1.0526	1.4735	1.1006
105	TH Group Bhd	1.5534	1.3939	1.2768	1.0346
106	Tien Wah Press Hldgs Bhd	-0.4046	-0.2171	0.1292	0.2018
107	M3nergy Bhd	0.8738	0.6865	1.0440	1.0502
108	YTL Cement Bhd	-0.1529	-0.2668	0.1688	0.4406
109	AKN Technology Bhd	0.2702	0.2670	0.1716	0.8992
110	Gopeng Bhd	1.9275	1.7209	1.7905	1.5329
111	Suiwah Corporation Bhd	0.9352	0.5128	1.3084	0.8915
112	Techventure Bhd.	-0.1464	-0.2045	-0.2999	-0.6899
113	Boustead Holdings Bhd	0.2241	0.1380	0.7568	0.5920
114	Cosway Corp Bhd	1.1514	0.8383	0.9900	0.6856
115	IGB Corporation Bhd	1.2660	1.5307	0.9821	1.1026
116	MMC Corp Bhd	1.5252	1.2255	1.3550	1.3946
117	Sapura Technology Bhd	2.1227	2.0799	2.1120	2.2633
118	Island & Pennisular Bhd	-0.0355	-0.0493	0.6763	0.3848
119	Kulim (Malaysia) Bhd.	0.7175	0.9349	0.5699	0.3017
120	OSK Property Holdings Bhd	1.0073	0.9904	1.4660	1.3637
121	Sime Darby Bhd	0.1585	0.1279	0.6240	0.7412
122	Astral supreme Bhd.	-0.1216	-0.1447	0.5591	0.5429
123	Johor Port Bhd -	-0.2227	-0.2222	0.2033	0.3857
124	Luster Industries Bhd	-0.1101	-0.1330	-0.3218	-0.4188
125	MESB Bhd	0.5568	0.6317	0.3851	0.4456
126	MTD Infraperdana Bhd	1.0829	1.0351	0.7053	0.6217
127	The Store Corporation Bhd	-0.1459	-0.2132	-0.1335	-0.1528
128	Tradewinds (M) Bhd	2.1457	2.3836	2.3860	2.5708
129	Astino Bhd	0.9253	0.8548	0.7864	0.5647
130	Ornapaper Bhd	0.6098	0.8601	0.6830	1.7662
131	Degem Bhd.	0.4849	0.2619	-0.0412	-0.0255
132	EP Manufacturing Bhd	0.5386	0.4013	0.3122	0.2209
133	E & O Property Development Bhd	0.9089	0.8665	1.1626	0.8049
134	IJM Corp Bhd.	0.5864	0.5873	0.6644	0.6995
135	Naluri Bhd	0.5364	0.3678	0.6084	0.8083
136	Lion Corporation Bhd	0.6193	0.5313	0.9888	0.7192
137	Padiberas Nasional Bhd	0.8875	0.5120	0.8867	0.6580
138	YTL Cement Bhd	1.2651	1.3467	1.5032	1.3080
139	Kumpulan Europlus Bhd	0.9323	1.0672	1.2142	0.9677

Notes: OLS refers to Ordinary least square and SW refers to the Scholes-Williams (1977) estimation of beta with one lead and one lag adjustment. Separate beta is estimated pre- and post-announcement from day -130 to day -31 and from day 31 to day 130, respectively.