

## **CHAPTER 2 LITERATURE REVIEW**

There exist numerous literatures on the implications of mergers and acquisitions (M&A) and the market for corporate control for value creation in the western countries but much less on the Malaysian scene. This literature focuses on two specific aspects: the evidence accumulated through event studies on the returns to shareholders of the target and acquirer firm accruing around the merger announcement; and the existing evidence suggesting what type of firm characteristics make it more likely that a particular merger will generate or destroy shareholder value. This summary review follows the findings of Campa and Hernando (2004); Goergen and Renneboog (2004); and Beitel, Schiereck, and Wahrenburg (2002). A more extensive survey of this literature going back in time can be found in Jensen and Ruback (1983); Datta, Pinches, and Narayanan (1992); Bruner (2002); and Fauzias (1993).

### **2.1 Take-over theories**

There are three main corporate take-over theories including:

- a) Shareholders wealth maximisation theory
- b) Non-value maximising theory
- c) Information effects theory

Shareholders wealth maximisation theory states that take-overs must lead to increased profitability for acquirer and target firms for it to be justified. The primary motivation for most mergers is to increase the value of the combined

enterprise through future synergies in the merged entity. Based on the efficiency theory, the sources of value creation include financial, operational and managerial synergies. In terms of financial synergy, the increased size of the firm provides access to cheaper capital. Operational synergies result from economies of scale from production and distribution, which is normally attributable to related acquisitions. Managerial synergy occurs when the management of the acquirers have superior skills that benefit the target's performance.

Non-value maximising theory states that mergers and acquisitions (M&A) are carried out to maximise top management utility rather than to increase shareholder value since remuneration levels are tied to corporate size. M&A activities that follow this rationale tend to suffer economic losses as the positive gain by target shareholders are offset by acquirer shareholder losses.

Information effects theory is linked to asymmetric information whereby the managers of acquirers are deemed to have superior or unique information on the true value of target firms. However, the bidding process prompts market revaluation of undervalued targets as information is disseminated. Conversely, if the market deems the acquirer to have paid too much, the share price of the acquirer drops.

## **2.2 M&A rationales**

Generally, the following rationales are given for undertaking mergers and acquisitions (M&A):

### ***Synergetic effect***

Synergies help to increase the value of the combined enterprise. This can be achieved via operating economies (management, marketing, production), financial economies (lower transaction costs), differential efficiency of two companies or increased market power (reduced competition).

### ***Diversification of risk***

Diversification helps to stabilise earnings stream and reduce risk

### ***Purchase assets below replacement cost***

It may be cheaper to purchase a target company than to purchase replacement assets

### ***Tax consideration***

Tax savings can be enjoyed if highly profitable companies acquire distressed companies due to accumulated losses

### ***Manager's personal incentives***

Top management would reap higher remuneration as the size of the firm grows.

### ***Break-up value***

At times, the market value of firms is below the book or economic value which makes the favourable to sell off the assets

### ***Increase EPS***

The corporate world focuses on EPS rather than economic gains

### ***Lower financing cost***

The increased size and strength of the company makes it cheaper for it to secure bank loans

In the Asian context, Desmarescaux (1998) opined that cost reductions from M&A materialise from worker layoffs and renegotiating supplier contracts during the merger.

## **2.3 Take-over types**

There are essentially five types of take-overs:

### **2.3.1 Horizontal take-over**

A horizontal take-over occurs between two firms in the same line of business. A recent example of a horizontal take-over is the merger between Southern Bank Berhad (SBB) and Ban Hin Lee Bank Berhad (BHL). Both SBB and BHL are principally engaged in commercial banking business and the provision of related financial services as well as stockbroking. On 1 July 2000, the business of BHL was amalgamated with SBB. After surrendering its banking licence to Bank Negara Malaysia (BNM), BHL became a dormant company and was later removed from the official list of the stock exchange. Another example is the acquisition of Nissan Industrial Oxygen Incorporated Berhad (NIOI) and Malaysian

Oxygen Berhad (MOX) in 2002 whereby both companies are principally involved in the manufacture of industrial gases. NIOI provides synergistic benefits to MOX through sharing of resources and increase in economies of scale.

### **2.3.2 Vertical take-over**

A vertical take-over involves firms that have producer-supplier relationships with both upstream and downstream businesses. A recent example of such a take-over is the acquisition of Industrial Concrete Products Berhad (ICP) by IJM Corporation Berhad. IJM's core business is in construction which includes bridges, commercial and residential construction while ICP is engaged in the production and sale of concrete products. Both companies were expected to derive greater synergies from this relationship such as in the area of bulk purchasing. Another example is the take-over of Ranhill Utilities Berhad (RUB) by Ranhill in 2003. The exercise creates a synergy between Ranhill's engineering and construction activities and RUB's water treatment management and operations expertise, which resulted in the water industry's first total solution provider in Malaysia.

### **2.3.3 Congeneric take-over**

A congeneric take-over involves related enterprises that cannot be categorised under horizontal or vertical take-overs. There are no take-overs of this nature in the sample study. An earlier example would be the

acquisition by Edaran Otomobil Nasional Berhad (EON) of Sarawak-based Kong Ming Bank Berhad, which was later renamed as EON Bank Berhad. EON, being the national car distributor, considered it essential to have a financial unit to offer end-financing for vehicles.

#### **2.3.4 Conglomerate take-over**

A conglomerate take-over involves firms with unrelated lines of businesses. A recent example of a conglomerate take-over would be the acquisition Crest Petroleum Berhad by Sapura Telecommunications Berhad (STB). The principal activities of STB include information technology (IT) distribution, manufacturing, consultancy and support as well as telecommunications equipment and education. On the other hand, Crest is engaged in offshore oil and gas drilling construction as well as marine installation. This strategic move allowed Sapura to diversify its business into oil and gas industry and to tap into the huge and growing oil and gas market in Malaysia and the Asia Pacific region.

#### **2.3.5 Reverse take-over**

A reverse take-over occurs when majority control shifts from the acquirer to the target firm after the exchange of shares. This type of acquisition is normally used to obtain indirect listing for the target company via the listed entity and is commonly known as backdoor listing. An example would be the reverse take-over of Kedah Cement Holdings Berhad (KCH) by EON Bank Berhad (EBB), a subsidiary of Edaran Otomobil Nasional Berhad

(EON). This move involved the sale of KCH's entire assets to Malayan Cement Berhad (MCB) and the subsequent injection of EBB into KCH. EON Capital Berhad (ECB), which wholly-owned EBB, was then admitted to the stock exchange in place of KCH. Overall, EON's banking arm achieved listing status within a short time, which allowed it to raise funds from the capital market to finance its future growth requirements. Another example is the reverse take-over of Great Wall Plastics Industries Berhad by Encorp Berhad in 2000-2003.

Horizontal, vertical and congeneric mergers are considered as related or non-conglomerate mergers in this study.

## **2.4 Valuation**

Ernst and Young (1994) presented the following methods for valuing a potential acquisition or take-over target:

### **2.4.1 Discounted cash flow analysis**

This is the most common approach which involves finding today's value by discounting future cash flows over a period of time

### **2.4.2 Comparable transaction analysis**

Valuation based on performance in the industry through the use of PE ratios and indices

### **2.4.3 Comparable companies' analysis**

A comparison study of target and other firms in the same market with emphasis on economic trends and risks

## **2.5 Cumulative abnormal returns**

In finance literature, event study methodology is used almost exclusively for empirical tests on mergers and acquisitions (M&A). The event study calculates abnormal returns as the difference between the actual returns and expected returns, based on the ordinary shares prices of firms involved in the exercise. The abnormal returns are then averaged across all firms in relation to the time period around the event date.

Studies of the short-term effects of M&A indicate that it creates value, even though most of this value accrues to the target firm. Research in the USA and UK indicates that the shareholders of the target firms experienced gains of between 16% and 45%. Acquirer firms' shareholders, on the other hand, experienced abnormal returns ranging from -1.1% to 7.9%. The combined firms' abnormal return was between 1.8% and 3.5%. (Jensen and Ruback 1983; Franks and Harris 1989; Mulherin and Boone 2000; Kohers and Kohers 2000; Andrade, Mitchell, and Stafford 2001)

Most empirical research indicates that target firms are the primary beneficiaries of mergers. Campa and Hernando (2004) did a study on M&A in the European Union and reported that target firm shareholders receive a significant cumulative



abnormal return of 9% in the frame of two weeks before and after the announcement date while the acquirer is null on average. Bruner (2002) supports the finding that M&A transactions provide premium returns to target firm shareholders whereas acquirers receive zero or negative returns. One possible explanation for the latter may be due to the post-merger reversal of overstated earnings in the quarter preceding a stock swap announcement (Louis 2002).

### **2.5.1 Acquirer firms**

The evidence on returns to buyer firms' shareholders is less conclusive. The evidence is evenly distributed between studies that report negative cumulative abnormal returns and those that report zero and slightly positive cumulative abnormal returns. Table 2-1 summarises the findings of six studies. These studies have been divided between those that report negative returns to shareholders and those finding positive or zero cumulative abnormal returns.

Table 2-1 shows four studies that report negative cumulative abnormal returns, which vary between less than one percent and three percent, with different windows. These cumulative abnormal returns are in certain cases significantly different from zero in statistical terms. The results in these studies contrast with those finding positive returns to acquirer firms. Table 2-1 shows three studies that report zero or positive returns to acquirers. These returns range from zero to two percent and in most cases they are very small, especially when compared to the reported cumulative abnormal returns to target firms in the next section.

Table 2-1 Summary of acquirer firms' shareholder's return

Study	CAR (%)	Sample size	Sample period	Event window (days)	Country
Campa and Hernando (2004)	0.44% 0.56%	262	1998-2000	± 1 ± 30	Europe
Goergen and Renneboog (2004)	1.18% 0.39%	139	1993-2000	± 2 ± 30	Europe
Beitel, Schiereck, and Wahrenburg (2002)	-0.01% 0.18% 0.46% 0.24% -0.20%	98	1985-2000	± 1 ± 2 ± 5 ± 10 ± 20	Various
Martinez-Jerez (2002)	-2.93%	335	1990-1998	± 1	U.S.
Mulherin and Boone (2000)	-0.37%	281	1990-1999	± 1	U.S.
Walker (2000)	-0.84%	278	1980-1996	± 2	U.S.

Overall, the findings are distributed rather evenly among studies showing value destruction and studies showing value creation. Thus, we cannot conclude that in the aggregate there is strong evidence for either positive or negative cumulative abnormal returns to acquirers. However, it can be observed that most of the past findings tend to zero returns.

Most of the reported cumulative abnormal returns seem to accrue only around the announcement date. Studies that focus on the cumulative abnormal returns after the completion of the transaction tend to find negative and significant returns to acquirers. Studies that analyse long-term returns to shareholders of acquirer firms also tend to find negative significant cumulative abnormal returns to acquirers. Caves (1989) infers that these findings are due to 'second thoughts' by acquirer shareholders, and/or the release of new information about the deal. However, interpretation of longer-run returns following the transaction is

complicated by possible confusion on the release of new information surrounding events that have nothing to do with the transaction.

Bruner (2002) found a slight tendency for returns to decline over the decades. He concludes that returns appear to be higher (more positive) in the 1960s and 1970s than in the 1980s and 1990s, except for deals in technology and banking. In these industries returns to bidders increased in the 1990s.

## 2.5.2 Target firms

Table 2-2 Summary of target firms shareholders' returns

Study	CAR (%)	Sample size	Sample period	Event window (days)	Country
Campa and Hernando (2004)	3.93%	262	1998-2000	± 1	Europe
	8.90%			± 30	
Goergen and Renneboog (2004)	12.96%	129	1993-2000	± 2	Europe
	15.92%			± 5	
	23.43%			± 30	
Beitel, Schiereck, and Wahrenburg (2002)	12.39%	98	1985-2000	± 1	Various
	13.54%			± 2	
	13.35%			± 5	
	14.39%			± 10	
	16.00%			± 20	
Martinez-Jerez (2002)	13.62%	335	1990-1998	± 1	U.S.
Mulherin and Boone (2000)	21.20%	376	1990-1999	± 1	U.S.

Target firm shareholders enjoy returns that are on average significantly positive in most cases. The findings of five studies, summarised in Table 2-2, reveal returns that are economically significant, despite variations in time period, type of deal (merger vs. tender offer), industry involved, observation period and measure of

cumulative abnormal returns. These findings are consistent with those reported in the older surveys such as Jensen and Ruback (1983), Datta et al. (1992) and Bruner (2002), which report average cumulative abnormal returns in the 20–30% range. Campo and Hernando (2004) concluded that a merger and acquisition (M&A) transaction delivers premium return to target firm shareholders.

The studies summarised in the table are more recent and they show significant cumulative abnormal returns although the gains are smaller. Most of the studies find that cumulative abnormal returns occur in the days following the announcement, and the larger the event window the greater the marginal increase in the amount and significance of cumulative abnormal returns. Interestingly, targets also experience a positive run-up in the days prior to a formal announcement. This run-up is related to the market reaction to rumours, to the research of analysts as well as the possibility of insider trading. On average, cumulative abnormal returns appear to be somewhat lower in the financial industry.

### **2.5.3 Acquirer and target firms combined**

The combination of positive cumulative abnormal returns to the target and breakeven returns to the acquirer suggests the existence of value creation from the merger. However, a large percentage gain to the target shareholders could be more than offset by a small percentage loss to the buyer shareholders.

Studies have looked at the combined weighted return for the acquirer and target firms. In Table 2-3, all four studies report positive combined returns.

Nevertheless, it is worth pointing out that the magnitude of the cumulative abnormal returns is relatively low. One major reason is that most acquirer firms are relatively much bigger in terms of market capitalization and sales compared to their corresponding target firms. For instance, Campa and Hernando (2004) reported gains of 0.56% to acquirers and 8.90% to targets for  $t \pm 30$  but that only translates to a combined gain of 0.95%. In contrast, Aktas, de Bodt, and Declerck (2001), focusing on a sample of mergers conducted in the second half of the nineties, found that half the deals were value-destroying.

Table 2-3 Summary of combined acquirer and target firms shareholders' returns

Study	CAR (%)	Sample size	Sample period	Event window (days)	Country
Campa and Hernando (2004)	1.04% 0.95%	262	1998-2000	$\pm 1$ $\pm 30$	Europe
Beitel, Schiereck, and Wahrenburg (2002)	1.40% 1.70% 1.45% 1.35% 1.29%	98	1985-2000	$\pm 1$ $\pm 2$ $\pm 5$ $\pm 10$ $\pm 20$	Various
Kuipers, Miller and Patel (2002)	3.77%	120	1982-1991	$\pm 5$	OECD
Mulherin and Boone (2000)	3.56%	281	1990-1999	$\pm 1$	U.S.

Overall, the findings in Table 2-3 coincide with the previous evidence in the literature suggesting that mergers and acquisitions (M&A) do result in a total increase in the combined shareholder value of the merging firms. These results support the efficiency and synergy explanation for mergers.

## **2.6 Value drivers**

Three main value drivers have been highlighted by the literature in mergers: the existence of synergies, the importance of value investing and the key role of management involvement.

### **Synergies**

Synergies through either the development of economies of scale, cost reduction or the elimination of duplicate activities are almost always mentioned as the justification for a merger. Diversifying (unrelated) mergers tend to be more associated with poor performance than related mergers. The degree of relatedness between the businesses of the buyer and seller is positively associated with returns as documented by many studies. There is also evidence that diversified firms trade at a discount relative to non-diversifying firms, although recent evidence suggests that this is not due to firms having diversified. Singh and Montgomery (1987) found that related acquisitions experienced superior economic returns due to the presence of synergetic effect via complementary resources. Maquieira, Megginson, and Nail (1998) found negative but insignificant returns to buyers in conglomerate deals, as opposed to positive and significant returns to buyers in non-conglomerate deals. Houston, James, and Ryngaert (2001) found a significant relationship between the present value of forecasted cost savings and the announcement day returns in bank mergers. Scanlon, Trifts, and Pettway (1989) found that acquirers in unrelated mergers experience significant price declines around the merger announcement date.

In a conglomerate merger, most literature of finance has assumed no synergy, except for financial effects (Copeland and Weston 1988). Although diversification reduces the overall risk of the firm, it does not create value for investors as they can freely diversify on their own by investing in shares of companies in other industries.

### **Value investment**

Value investment is also likely to generate positive returns. Value investment occurs when buyers purchase apparently cheap firms (low book-to-market ratios). Rau and Vermaelen (1998) found that buyers of companies with high book-to-market value ratios obtain significantly negative cumulative abnormal returns in merger deals, while value-oriented buyers earn significantly positive cumulative abnormal returns.

### **Management**

In certain cases, investors perceive that acquirers have overbid and will react negatively to the merger announcement. This is linked to managerial actions consistent with the hubris hypothesis, the managerialism hypothesis and the free cash flow theory.<sup>1</sup> The hubris hypothesis states that managers believe that they can spot undervalued firms (Roll, 1986). The managerialism hypothesis states that managers want to increase the company size to increase their remunerations (Mueller 1969). The free cash flow theory states that managers prefer to invest unused cash rather than distribute to shareholders in order to avoid losing control (Jensen 1986).

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Studies suggest that returns to buyer firm shareholders are positively related to share ownership by managers and employees. A related finding is that leveraged and management buyouts (LBOs and MBOs) create value for buyers. MBO occurs when members of the management of the target company buys the target directly while LBO is a special type of MBO that uses high leverage. Bruner (2002) highlights that the sources of these returns are not only from tax savings due to debt and depreciation shields. Gains also accrue significantly from efficiencies and greater operational improvements implemented after the buyout by the new managers who tend to have a significant portion of their net worth committed to the success of the transaction.

## **2.7 Other characteristics**

### **2.7.1 Payment method**

Form of payment is generally a choice between cash, stock or a combination of cash and stock. The choice of methods to be used by the acquirer depends on the impairment effect it has on the balance sheet for future financing activities. Cash is the predominant form of payment, except in large mergers in which stock accounts for the highest percentage of financing.

Cash bids require acquirer firms to raise funds either internally or externally. When internally generated funds or retained earnings are insufficient, the company needs to borrow or engage in complex fund raising exercises, such as rights issue or bonds, in advance.



Share swap involves the issuance of new equity shares to pay for the target firms' shares. Fauzias and Takiah (1986) found that payment via share swap was the favoured in Malaysia. Equity financing tends to be popular following rises in the stock market. However, this mode of payment dilutes control of acquirers and may even lead to reverse take-overs.

Cash payment is preferred to stocks by the target firms' shareholders in a merger. Evidence suggests that stock deals are related to negative value creation while cash purchasers have zero or positive cumulative abnormal returns. Louis (2002) found evidence that stock swap acquirers fare worse than cash acquirers in the days leading to the merger announcement and that the long-run performance of acquirer firms is significantly negative, largely due to stock swap acquirers. Assuming information asymmetry between acquirer and target, Fishman (1989) argued that high-synergy bidders use cash and low-synergy bidders use securities. The revelation that the medium of exchange is stock will result in negative return for acquirer and target and vice versa.

### **2.7.2 Size of merging firms**

The relative size of the merging firms is also a determining factor of the market reaction to a merger. Smaller targets are deemed to be more manageable and hence more likely to exploit its potential (Chatterjee 1986). Consequently, prior studies have found a negative correlation between the abnormal return of an acquirer and the relative size of the target (Louis 2002).

### **2.7.3 Resource transfer**

Capron and Pistre (2002) found that acquirers can expect to earn abnormal returns when they transfer their own resources to the target firm but not vice versa. Ramaswary and Waegelein (2003) determined that firms that merged from different industries have better performance. Meanwhile, Agrawal and Jaffe (2003) disproved the belief that take-overs are influenced by the intention to improve poorly performing firms. The result of their large scale empirical study showed little evidence to support the inefficient management hypothesis.

## **2.8 M&A categorisation**

There are two categories of mergers and acquisitions (M&A) in this analysis, mergers and tender offers. The difference in processes between the two may lead to inconsistencies in price run-ups leading to the acquisition. A merger is the result of negotiations between an acquirer and a target while a tender offer, such as a voluntary general offer, involves only the issuing firm. The fact that mergers include a negotiation process between merging partners, information leakages is more likely to occur as opposed to a tender offer. Schwert (1996) had found significant run-ups in targets' prices as far back as one month before a merger announcement. Therefore, stock price adjustment is likely to begin weeks before the merger announcement due to the spread of rumours of a possible merger.

## **2.9 Malaysian M&A studies**

Studies on the effect of mergers and acquisitions (M&A) on shareholder value in Malaysia are rare, particularly those on price behaviour around the

announcement date. Nevertheless, Fauzias had carried out numerous studies on Malaysian M&A.

Fauzias and Takiah (1986) carried out a financial survey in Malaysia and the results show that diversification was the most common reason for acquisition. From the sample of acquisitions with known reasons, around 79 percent reflected this characteristic while the rest were non-conglomerate acquisitions. They also reported that Malaysian M&As were mostly settled via share swaps.

The event study conducted by Fauzias (1993) is pertinent to this investigation even though the time frame of between 1977 and 1989 may not reflect the behavioural characteristics of recent years. The sample was made up of 188 acquirers and 38 target firms with an event window of  $t \pm 200$ . In terms of cumulative abnormal returns, the period of  $t - 200$  to  $t = 0$  were measured whereby acquirers gained 9.21% while targets reaped 13.69%.

Fauzias (1993) computed abnormal returns based on the simple market model. Two alternative models were employed to determine whether the specification of control returns would affect the results of the study. The first alternative model uses the capital asset pricing model (CAPM) with  $\alpha$  unconstrained and constrained to zero. The second model uses the market model with  $\alpha = 0$  and  $\beta = 1$ . However, there were no obvious differences towards the conclusions made.

Fauzias (1993) found that share prices of acquirer firms increase in the days leading up to the announcement and opined that it was due to leakage of

information pertaining to the acquisition. This implies that investors in the acquirer and target firms can outperform the market before the announcement date. In the short-term, post-announcement share prices suffered from significant negative changes which suggest the acquirer overestimated in the evaluating the take-over opportunity. The gains before the announcement were offset by declines after and that supposedly made acquirer shareholders no better off than before the merger. Overall, the cumulative abnormal residuals are higher than the period before information leakage. This implies that take-over in Malaysia create major benefits to shareholders to acquirer firms and appear to facilitate resource allocation within the Malaysian economy.