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Mergers and Acquisitions: Some Empirical Evidence on Performance, Financial Characteristics and Firm Sustainability

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Abstract

The study examines the performance and financial characteristics of non-financial companies (low and high sales growth companies) that were involved in mergers and acquisitions in Malaysia. Capital gains were used to measure the companies' performance over a period of two years and profitability measures (ROE, EPS, dividends payout, gearing ratio, PE ratio) were incorporated in the study. Paired sample testing and independent t-test analyses were adopted. The study reveals that there is no significant difference in terms of performance between low and high sales growth of companies in the presence of economic shock. However, high sales growth companies which are small in size seem to be more vulnerable to economic shock compared to low sales growth companies. In terms of financial characteristics, statistically, there are no significant differences between the two groups but the low sales growth companies (which are large in size) tend to register higher returns to shareholders.

Keywords: Mergers, Acquisitions, Financial characteristics, Performance

1. Introduction

Merger and Acquisition (M&A) activities in Malaysia obviously started in the 1970's which were largely confined to oil palm and rubber plantation companies. The involvement of foreign companies in the M&A activity was also noted to be quite significant especially in the plantation sector. In the 1980's, rapid growth particularly in the industrial sector coupled with the privatisation policy have boosted many companies to become more acquisitive in diversifying their businesses. Among the major acquisitions in the 1980's were, Sports Toto taken over by Melewar Corporation and B & B Enterprise Sdn Bhd (1985), Big Sweep Lottery taken over by Pan Malaysian Sweeps Sdn Bhd (1989) and UEM took over the North South Highway Project (PLUS) in 1987.

However, in the 1990's, merger and acquisition activities started grabbing the headlines. Several Malaysian companies were involved in takeover proposals or acquisitions of substantially equity stakes in companies both foreign and local, while others acquired property and yet others were subjects of mergers. Among the ten largest corporate deals in 1994 were acquisition of 32 per cent in MAS made by Malaysian Helicopter Services; acquisition of 45 per cent stake in SESCO by Dunlop Estate; and takeover of Penang Bridge Concession by Acidchem. According to Merrill Lynch International Bank Ltd, Malaysia was the leading Asia Pacific "acquirer" and "target" nation for mergers and acquisitions in 1996. It was noted that the volume of completed deals in the region has grown at annual growth rate of 15.4 per cent against the global annual growth rate of 8.1 per cent between 1990 and 1996 (Note 1).

In light of the financial crisis which broke out in July 1997, many companies in Asia in general and Malaysia in particular faced serious financial distress. In the case of Malaysia, many arguments made for the downfall of those companies and one of the big arguments was on the issue of over-diversification via mergers and acquisitions. However, to what extent M&A activity had caused poor performance of those companies remains debatable. Many studies have been made on mergers and acquisitions but surprisingly, very few have considered some specific or unique characteristics of acquiring companies and the effect of the financial crisis.

1.1 Definitions

Weinberg and Blank (1979) define *merger* as an arrangement whereby the assets of two companies become vested in or under the control of one company (which may or may not be one of the original two companies), which has all or substantially all, the shareholders of the two companies.

Charles A. Scharf (1971) describes the term *acquisition* as any transaction in which a buyer acquires all or part of the assets and business of a seller or part of stock or other securities of the seller, where the transaction is closed between a willing buyer and a willing seller, i.e., a seller whose management agrees to the acquisition and helps negotiate its terms.

Nonetheless, there are a few types of acquisition. The two types of acquisition that have been widely practised in most organisations are asset acquisition and stock acquisition. An *asset acquisition* is an acquisition in which the buyer acquires all or a part of the assets and business of the seller, pursuant to a contract entered into between the buyer and seller. In contrast, a *stock acquisition* is an acquisition in which all or a part of the outstanding stock of the seller is acquired from the stockholders of the seller. It should be noted that for this study data on acquisitions collected were based on stock acquisitions.

A takeover happens only when the control of the company of the seller passes to the buyer. For this study, the words acquisition and takeover carry the same meaning since the criterion is that the acquiring companies should have acquired at least 51 per cent of the outstanding shares of the target companies.

2. Literature review

Ansof (1971) found that after an acquisition, low sales growth companies showed significantly higher rates of growth, whereas, high sales growth companies showed lower rates of growth. However, even though low sales growth companies showed higher rates of growth after acquisitions, they actually suffered decreases in their mean P/E ratios, mean EPS and mean dividend payouts. The similar pattern of inconsistency found in the high sales growth companies whereby their performance levels for EPS, PE ratio, earnings and dividend payouts were greater.

Low sales growth companies financed their acquisitions through decreased dividend payouts and the use of new debts. In contrast, high sales growth companies with other strategies tended to decrease debts but increase dividend payouts. Acquisitions were in general unprofitable, as they did not contribute to increases in all of the variables of the companies' growth. Acquiring firms registered lower rates of growth as compared to the non-acquiring firms and this was more pronounced for low sales growth acquiring firms.

Ajit Singh (1971 argued that after a two-year period of takeover, there was a deterioration in their relative profitability records. He added that as in relation to the EPS, the biggest potential losers are shareholders in bidding companies who were sacrificing profits for future growth. He added that those acquiring firms could have maintained their profitability records if they were not involved in takeovers and large companies tended to engage in higher gearing and this led to higher retention ratio and eventually higher growth is attained.

Firm size and financial performance of acquiring firms can be the determinants of poor performance in the post-acquisition period (Schmidt, Dennis, Fowler and Karen, 1990). Investors do not hold more favourable expectations for related mergers than for unrelated ones and stockholder value appreciates most for vertical mergers. Hence, acquisition involving vertical integration creates more value to large companies (Michael Lubatkin, 1987) despite the findings of many studies concluded that firms participated in related acquisitions experienced superior economic returns in comparison with unrelated acquisitions. Hence, the rationale for the superior economic performance was due to the synergetic effect especially via complementary resources.

Ingham (1992) concluded that small acquisitions into an existing organisational structure might be achieved without the severe problems of loss of control and subsequent decline in performance that beset large acquisitions. Allen and Pat (1990) reiterated that an acceptable premium should be no more than the discounted cash flows of a firm, as adjusted for any efficiencies or synergies the acquisition would exploit. In the Asian context. most value creation (cost reduction) materialised from either worker layoffs or renegotiating supplier contracts during the merger process (Fabrice Desmarescaux, 1998).

Shareholders of target companies tend to benefit more from acquisition activities based on their cummulative average residuals (Kwansa 1994). Firth (1979) pointed out that there were no significant gains correlated to takeovers and surprisingly the companies could not sustain their gains during their post acquisition period. With the view of considering types of shareholders, it seems long term shareholders do not gain significantly from merger and acquisitions (Loughran and Vijh, 1997). This point is also reiterated by Kiymaz and Mukherjee (2000) as the participating companies failed to realize gains once the mergers were completed. Kummer and Hoffmeister (1978) found that share prices of the acquiring companies experience systematic deterioration during the post-merger period.

3. Objectives of the study

This paper makes an attempt to examine the performance of both low and high sales growth companies by incorporating the impact of the financial crisis in 1997 on both low and high sales growth companies. This paper also investigates financial characteristics of low and high sales growth companies involved in merger and acquisition activities.

4. Theoretical framework and hypothesis formulation

It has been noted that the performance of acquiring companies tends to deteriorate during the post acquisition period. Low sales growth companies seem to be more stable in terms of future growth compared to high sales growth companies (Ansoff, 1971). However, there is no clear argument made over whether which group is more vulnerable to *'exogenous shocks'*. In addition, shareholders of low sales growth companies tend to suffer more in their returns compared to those of high sales growth companies and large companies tend to have higher gearing policy which results in higher retention ratio and higher growth (Ajit Singh, 1971). Where gearing and size are concerned, although not many studies really intended to companies participating in mergers and acquisitions, some general findings can still be concluded. Admittedly, low gearing is always preferred to reduce the threat of insolvency (Theis and Casey, 1998). Fixed assets can support higher gearing compared to intangible assets (eg. growth opportunies) (Myers, 1977) but however, when debt financing rises, higher dividends are expected (Al-Sakran, 2001).The relationship between earnings and financial leverage is ambiguous (Thies and Klock, 1992).

Hence, low sales growth companies which are large in size, seem to be more stable as risk could be reduced through diversification. This signifies that low sales growth companies' performance (capital gains yield) is expected to be better than that of high sales growth companies especially in the presence of economic shock. Thus, the following directional hypothesis is proposed;

H_1: Low sales growth companies tend to register greater performance as compared to high sales growth companies in the presence of economic shock.

5. Definition of the variables

This capital gains yield (CGY) is calculated on a monthly basis and the formula is as follows;

$$CGYmt = \frac{\text{Share Prices mt} - \text{Share Prices m-t}}{\text{Share Prices m-t}} \times 100$$

mt = current month

m-t = previous month

Therefore, the higher the share price of the current month, the greater the capital gains will be and this denotes greater performance and vice versa.

Thus, the calculation of capital gains yield is also related to the Gordon Constant Growth Model as illustrated below;

Expected rate of return = Expected dividend yield + Expected growth rate or **capital gains yield**

Understandably, the higher the capital gains yield, the higher the expected rate of return (k_s) would be and thus the performance is also said to be greater.

In addition, other forms of measures are also considered for assessing financial characteristics by incorporating some useful accounting data (profitability measures). ROE (Return on Equity), DPO (Dividends Payout), GR (Gearing Ratio), TA (Total Asset), PER (Price-Earnings Ratio) and EPS (Earnings Per Share). The formulas are as follows: ROE = (Post-tax earnings/ Total Equity) X 100, Dividends Payout = Payout Ratio (thus, 1 minus payout ratio = retention ratio (RR), ROE x RR= Sustainable growth rate (SGR), EPS=Profit after tax/ No of shares issued, PE Ratio = Market price/ EPS, Gearing Ratio = Long term debt/ Total equity + long term debts and Total Asset=Current Asset + Fixed Asset.

6. Research Methodology

This study was carried out based on takeover bids made by Malaysian listed companies in the non-financial sector over the period 1990-1995. As there was a need to strictly follow the criteria set in this study, a sample of 60 non-financial public listed companies was chosen comprising of low sales growth companies (average sales growth of 4%) and high sales growth companies (average sales growth of 10%) [Ansof, 1971]. Companies' annual reports were then used to determine the selected companies' average sales growth rates on the basis of 5 years prior to their involvement in M&A activities. Performance (Capital gains yield) is measured based on the weekly share prices of the companies over the period January 1996-December 1998, pre-crisis (January 1996-May 1997) and crisis (August 1997-December 1998). Period June - July of 1997 was excluded to avoid biasness as many companies' share prices seemed to be very unstable due to the financial crisis which broke out during period.

6.1 Sampling design and data collection procedure

A non-probability sampling was adopted for this study, as the selection process required some form of personal judgement in meeting the specific requirements. The data gathered for the study were secondary data. The details of the collection procedure are explained as follows; First, the process of identifying the companies that participated in M&A activities between years 1990 and 1995 was carefully carried out. To determine this, the announcement dates were used as the basis. And another rule that was strictly complied with in selecting those companies was that *an acquisition should comprise of at least 51 per cent of the target company's outstanding shares*. All this information was obtained from Investors' Digest and other related materials. Companies' annual reports were then used to determine the selected companies' average sales growth rates on the basis of 5 years prior to their involvement in M&A activities. However, the Companies Handbooks were also used, especially for obtaining accounting data such as ROE, DPO, EPS, PE, total asset and gearing ratio over the period 1990-1996. The Sequencer programme was also utilised especially in realising capital gains yield for all the selected companies over the period 1996-1998 as explained in the earlier part.

6.2 Data analysis techniques

T- test and paired sample testing were used to compare mean scores with respect to various periods, Pre-crisis; crisis and 1996-1998. The use of independent variables was also extended to compare mean scores with respect to a number of profitability measures at significance level 0.05.

7. Research results

7.1 Performance

Table 1 and Table 2 indicate that both low and high sales growth (LSG and HSG) companies registered a negative **capital gain yield (cgy)** over the period 1996-1998 (-11.53 per cent and -39.64 per cent respectively). Indeed, both LSG and HSG suffered decreases in their cgy even before the crisis period. As for LSG (Table 1), a significant difference can be seen in their performance between pre-crisis and crisis periods (Pair 1), but for HSG (Table 2), significant differences were registered in Pair 1 and Pair 3. It should be noted that a positive cgy (8.66 per cent) recorded during the crisis period by the LSG and as for HSG, the crisis (-5.40 per cent) worsened their overall performance.

Table 1. Mean of capital gains of low sales growth (LSG)companies

Pair	Periods	Mean (%)	Significance (0.05)
Pair 1	Pre-crisis	-20.19	0.044
	Crisis	+8.66	
Pair 2	Pre-crisis	-20.19	0.337
	1996-1998	-11.53	
Pair 3	Crisis	+8.66	0.053
	1996-1998	-11.53	

Table 2. Mean of capital gains of high sales growth (HSG)companies.

Pair	Periods	Mean (%)	Significance (0.05)
Pair 1	Pre-crisis	-34.24	0.006
	Crisis	-5.40	
Pair 2	Pre-crisis	-34.24	0.608
	1996-1998	-39.64	
Pair 3	Crisis	-5.40	0.002
	1996-1998	-39.64	

Table 3 reveals there is no significant difference between LSG and HSG in terms of their performance with respect to pre-crisis, crisis and 1996-1998 periods. However, it should be pointed out that HSG seemed to be more vulnerable to *external shocks* as compared to LSG which seemed to be more sustainable when faced with *external shocks*. Though LSG managed to bounce back during the crisis with a positive capital gains yield (+8.66), statistically, LSG companies failed to register greater performance when compared against the performance of HSG companies. Hence, the hypothesis is not supported.

Table 3.Comparison between low and high sales growth companies

Period	Company	Mean (%)	Significance (0.05)
Pre-crisis	LSG	-20.19	0.889
	HSG	-34.24	
Crisis	LSG	+8.66	0.658
	HSG	-5.4	
1996-98	LSG	-11.53	0.871
	HSG	-39.64	

7.2 Firm Characteristics

Table 4 presents results on profitability measures in relation to shareholder value appreciation of LSG and HSG companies. There are no significant differences between LSG companies and HSG companies with respect to all the variables particularly on the shareholder value.

The level of mean scores when compared between the two groups is inconsistent with respect to a few variables. For instance, in terms of ROE, LSG companies offered 17 per cent but HSG companies offered only 12 per cent. On the other hand, HSG companies registered higher EPS of RM0.46 as compared to RM0.43 registered by LSG companies. Where the gearing ratio is concerned, the difference between the two groups is quite exposed (64 per cent and 21 per cent) but statistically, it is not significant at 0.05.

Table 4. Mean of profitability measures of low and high sales growth companies

P/measures	companies	N	Mean	Sig (0.05)
ROE	LSG	30	17.47%	0.159
	HSG	30	12.23%	
EPS	LSG	30	42.03	0.349
	HSG	30	45.77	
DPO	LSG	30	7.26	0.507
	HSG	30	8.60	
GR	LSG	30	63.70%	0.081
	HSG	30	21.27%	
PE	LSG	30	42.14	0.662
	HSG	30	41.26	
TA	LSG	30	3192	0.138
	HSG	30	1193	

Table 5. Comparison between low and high sales growth companies

Measures	**LSG**	**HSG**
Size	Large	Small
ROE	Higher	Lower
DPO	Lower	Higher
GR	Higher	Lower
PE	Higher	Lower
EPS	Lower	Higher
Capital Gains: 96-98	Negative	Negative
Crisis	Positive	Negative

As indicated in Table 5, it is quite realistic to point out that large companies (LSG companies) that were involved in merger and acquisition activities tended to engage in higher debts, thus ROE became relatively higher but prepared to pay lower dividends in order to sustain their future growth. In addition, acquisition activities to some extent helped large companies to sustain their performance even in the presence of major shake-up in market. In the case of HSG

companies (relatively smaller) tended to have lower gearing as much of their financing activities were supported by their equity. Hence, ROE was relatively lower but nonetheless, their shareholders enjoyed getting higher yields through EPS and DPO.

8. Limitations

Some limitations or potential weaknesses in this study must be addressed. First, the sample involves non-financial sector which comprises of various industries thus, it is quite difficult to maintain homogeneous characteristics within the companies chosen as different industries tend to face different types of challenges. On the other hand, the sample size is limited to 30 companies for each group as there was a need to meet many requirements made for this study. Second, this study is constrained by the selection of variables as the researcher had to rely on companies' handbook and limited financial reports. Hence, the researcher had to verify the reliability of the financial data obtained in various reports and therefore limited measures used to describe the companies' characteristics.

9. Summary and conclusions

We have come to understand that the financial crisis had indeed further deteriorated the capital gains yield of the high sales growth (HSG) companies. Admittedly, low sales growth companies (LSG) companies had actually benefited from the crisis period or rather it could be, the effect of the crisis worked somewhat in favour with the LSG companies. It should be pointed out that M&A activities failed to boost the performance of both groups even before the crisis impacted the local industries. Lack of synergetic effect via the M&A activities and failing to consider the M&A motive in line with their strategic planning could be the major reasons for the unfavourable results as reported earlier.

However, the LSG companies managed to show a positive capital gains yield (8.66 per cent) during the crisis period while share prices of HSG companies continued deteriorating. Surprisingly, there is no significant difference between LSG and HSG companies in terms performance during the post acquisition period. This supports the argument that sales growth rates are irrelevant to measuring performance during the post acquisition period. Based on the mean scores of total asset, it has been found out that the LSG companies were basically large organisations compared to HSG companies seem to be more sustainable and able to quickly adjust themselves to *external shocks*. Meanwhile, HSG companies which are relatively smaller in size, finance their assets mainly through equity, thus their ROE becomes relatively smaller compared to that of LSG companies.

In addition, both LSG and HSG companies do not seem to differ one and another in terms of financial characteristics prior to the crisis period. However, shareholders particularly risk avoiders may feel comfortable with LSG companies for their sustainability. Though gearing ratio seems to be higher for LSG companies (63.7 per cent), the fact is that the impact of gearing is slightly *exposed* for HSG companies (gearing ratio of 21.3 per cent) but it is still insignificant

As pointed out by this study, it was not really the **diversification** that resulted from the M&A activities, but rather it was **'diworseification'** that became more pronounced for most companies during the post-acquisition period, in general and during the pre-crisis period, in particular. These findings are indeed in tune with the previous studies that have reiterated that mergers and acquisitions in general do not help companies to meet sustainable growth. Does this mean the M&A activity is a dangerous move? Undoubtedly, the motives for, and types of, mergers are the key aspects to be explored before participating in M&A activities. Indeed, in the Malaysian context, arguments can be made in various perspectives. Undoubtedly, expectation from a merger could be the main issue as short-term gains are probably very much emphasised for the selling shareholders.

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Notes

Note 1. Business Times, January 11, 1995

Appendix: List of companies

Low sales growth companies	**High sales growth companies**
Sarawak Concrete Industries Berhad	Innovest Berhad
Land & General Berhad	Ho Wah Genting Group
Rahman Hydraulic Tin Berhad	Pintaras Jaya Berhad
Edaran Otomobil Nasional Berhad	UMW Industries Berhad
Kretam Holdings Berhad	Kumpulan Emas Berhad
Leong Hup Holdings Berhad	PSC Industries Berhad
Kulim Malaysia Berhad	Kemayan Corporation Berhad
Hai Ming Holdings Berhad	Repco Holdings Berhad
Texcehem Resources Berhad	Hirotako Holdings Berhad
Chocolate Produsts (M) Berhad	Cygal Berhad
Tiong Nam Transport Holdings	Tongkah Holdings Berhad
Hong Leong Properties Berhad	Granite Industries Berhad
IOI Corporation Berhad	Gula Perak Berhad
Gleanealy Plantations (Malaya) Berhad	Hexza Corporation Berhad
Advance Synergy Berhad	Gadek (M) Berhad
ACP Industries Berhad	Austral Amalgamated Tin Berhad
Jaya Tiasa Holdings Berhad	Ancom Berhad
Anson Perdana Berhad	Chemical Company of Malaysia Berhad
Brem Holdings Berhad	Metroplex Berhad
Trenergy (M) Berhad	OYL Industries
Khong Guan Holdings (M) Berhad	Park May Berhad
Mulpha International Berhad	Palmco Holdings Berhad
Oriental Holdings Berhad	KL Kepong Berhad
Sitt Tatt Berhad	Leader Universal Holdings Berhad
SPK Sentosa Corporation Berhad	Selangor Dredging Berhad
Setron (M) Berhad	Time Engineering Berhad
Landmarks Berhad	Faber Group Berhad
Talam Corporation	Johan Holdings Berhad
Lien Ho Corporation Berhad	Larut Tin Fields Berhad
Mega First Corporation Berhad	RJ Reynold