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Motivation and Outcome of Malaysian Takeovers: An International Perspective

Ruhani Ali and G.S. Gupta

Abstract

This paper examines the potential motives and effects of corporate takeovers that occurred in Malaysia for period 1980-1993. Mueller's (1980) methodology which has been adopted in Australia, U.S., U.K., and five European countries are employed in order to provide evidence on Malaysian takeovers on an international perspective. The findings indicate that the Malaysian takeovers were motivated by the size, growth and profit considerations, and were supported by the desire of having a balanced leverage, thus supporting the eclectic theory of takeovers. In terms of the outcomes, the paper finds that the acquiring firms have achieved larger size at the expense of reduced profits of the acquired firms.

1 Introduction

Takeover is a major means of diversification and external growth strategy adopted by firms. It is a world wide phenomenon occuring in various countries under different economic and institutional environment. There has been a growing volume of Western literature on the takeover market in the last two decades. However, the extent of Malaysian takeover studies are still limited and are concentrated on, takeover announcement studies as in Mat-Nor (1993) and Md-Isa and Lim (1993), on predicting takeover targets as in Mat-Nor and S. Hussin (1997), and explaining for bidder and target firms characteristics as in Ali and Gupta (1998).

This study aims to provide an indepth understanding of the Malaysian takeovers by examining the potential motives of Malaysian takeovers and its consequences.

Sample data of all the 45 pairs of successful takeovers of listed firms which occurred for the period 1980-1993 are used. Mueller's (1980) methodology which has been adopted by several countries such as U.S., several European countries and Australia as in McDougal and Round (1986) are used on to these Malaysian takeover firms in order to provide explanations for the firm's takeover motives such as; in search for economies of scale, synergy, managerial self-interest, risk reduction and/or for displacement of inefficient managers. The outcome of takeovers are tested to see if the initial inferred motives lead to improved post-performance. The use of an internationally accepted methodology is to provide analysis of Malaysian takeovers from an international perspective. However, unlike that in most other countries, in Malaysia, the bidder firms only acquire a substantial part of the corresponding target firm's equity without merging the two into a joint entity.

2 Variable Measurement and Methodology

To maintain consistency and to provide for an international comparison, the financial variables' definitions used are as in Mueller (1980). The variables used to measure for the characteristics, the causes and outcome from the takeovers are: a) size, b) growth in total asset, c) profitability, d) risk, and e) leverage.

The firm size is measured by total assets, expressed in billions of Ringgit. The analysis of the pre- and post-takeover size variable is used to infer if the takeovers are for managerial self-interest, that is, if managers undertook the takeovers to increase the size to enhance their potential compensations.

The growth rate is measured by the percentage annual growth rate in total assets during the pre- and post-takeover years. If takeovers lead to efficiency gains (create synergy) then they would be expected to lead to a higher growth firm (larger size). A growth oriented firm could also arise if the management is motivated to carry out takeovers to increase size and thus their renumerations, as hypothesized by Williamson (1964). Myers and Majluf's (1984) study on asymmetric information hypothesized that high growth, resource-poor firms are likely to serve as the targets.

Two alternative measures of profitability are used. The first measure is the ratio of operating profit to total asset (P1), thus relates operating profit to assets available to management. The second measure is earnings after tax to net worth (P2), which provides an indication of managements'ability to generate profits in relation to their invested funds. If managers of bidder firms seek to maximize profits, the long-term effect is for the profit rate to increase. And if takeovers have an adverse effect on profit rate, manager do not act to maximize shareholders wealth and may be interested in increasing the size and renumeration (thus, the effect on profit need to be observed together with that on the size and the growth variable). However, if in the pre-takeover period, profit rate is lower than in the post-takeover period, it could be inferred that takeovers provide a mechanism for disciplining or replacing the inefficient managers with the more efficient ones.

The risk exposure of a firm is measured by the coeficient of variation (a relative measure of variability) of the operating profit (R1) and earnings after tax (R2). The coeficient of variation is calculated by dividing the standard deviation of the profit figures by the mean profit level for the period. The risk variable would indicate if takeovers are undertaken to reduce the exposure to fluctuations in earnings. If this is

the motive of the takeovers, it would be expected that the post-takeover period risk is lower than the pre-takeover period risk.

The leverage is measured by the ratio of total liabilities to total asset The leverage could assist a firm achieve its optimal capital structure and has an effect of creating value to the firm. The pre- and post- leverage levels would provide an indication of the usage of debt and the risk exposure of takeover firms.

The analysis is done on an inter-firm cross-section basis and is based on (where ever possible) three years averages of pre- and post-takeover data of the relevent variables for all takeover and control firms. The outcome of takeovers is measured as in Mueller's (1980) study, that is by the change in average post takeover measure to the average pre-takeover measure.

The univariate statistical analysis is used in determining the extent, if any, of the distinction on the basis of each of the variables, between each comparison group of; a) the bidder and target firms, b) bidder and control bidder, and c) target and control target firms. The analysis involves a two-fold approach. One, the mean values of the variables across groups of firms are compared to infer the differences across groups. Two, the t-test is applied to examine the statistical significance of the differences with regard to the chosen financial variables across each different groupings. The latter approach considers the mean values along with the standard deviation across firms within the group, and thus enables us to infer conclusions for the population on the basis of the sample. Each comparison is conducted for the pre-takeover and post-takeover period, and also for testing for the outcome of the takeovers to provide inferences on the determinants as well as the outcome of the takeovers

3 Takeover Sample and Control Firms

The population of takeover firms is defined as all takeovers involving listed bidder firms' attempts towards taking over listed target firms during 1980-1993 The list of population of takeovers for this period was identified from the 1980-1994 Investor's Digest. The initial list comprised of 74 pairs of listed firms. These companies were checked in their respective KLSE Company Files to track if the takeover was succesful. Out of these initial sample, 45 pairs was identified as successful takeovers. The sample selection is truncated to 1993 in order to allow for at least three years post-performance data, that is financial data is collected up to 1996.

A subsample of firms that sell-off (made divestiture) of the acquired stake is identified in order to collect characteristic information of these firms pre- and post-takeover and to make sure that these firms were not included in the post takeover period to correctly account for the effects of takeovers on corporate performance.

Control firms were needed to provide a benchmark measure of pre- and post-takeover performance. That is, it provides an indication of what might have been the case if no takeover had taken place or if the two merging firms had continued seperately. This involves matching each bidder and target firms with a correspondingly identical non-takeover firms.

For each bidder and target firm from the list of successful takeovers, a control firm is identified*. These firms are matched on the basis of KLSE industry

* Control firms are identified only for non-banking bidder and target firms. Banking related firms are not included in the group when univariate analysis are made because these firms have financial structure or relevant ratios that are different from other industrial firms in the sample.

classification, asset size, and calender time (that is based on year of takeover announcement) Where possible, they were matched by principal activities as described in the KLSE Companies Handbook. For takeover firms that occurs in later years (1990s), PACAP Malaysian database industry codes, which is more specific in classification (that is it breaks down industrial sectors into 44 industry codes), were used to double check on the matching of control firms. The matched control samples were also screened for being free from acquiring or be acquired by listed firms in the before and after the takeover observation period.

The matching on the basis of industry classification and calender time is to capture the impact of various economic, political and regulatory influences common to both takeover and non-takeover firms. By using this carefully matched pair procedure, it was possible to analyze the data pooled across industries and time-periods, thereby, reducing the possible systematic bias due to aggregation as well as sampling error, thus providing for increased precision on to the effects of takeovers.

4 Results and Analysis

The data are analysed in terms of the mean values' comparisons as well as the significance of the differences using the t-test, which uses both the mean values and the standard deviation across the firms of a particular group. Using this method of analysis, the paper examines both the determinants as well as the consequences of the takeovers. Accordingly, the results are presented and analysed under the two subsections, each covering one of these aspects.

4.1 Determinants of Takeovers

The determinants of takeovers could be inferred by comparing the characteristics of different groups of firms before they participated in the takeover process The results on this for the mean values of the discerning financial variables are provided in Table 1.

Table 1: Pre-takeover Characteristics: Mean Values

Determinant	Firms' Groupings			
	Bidders	Targets	Control Bidders	Control Targets
Size (Billion RM)	584	425	549	390
Growth	1.44	0.55	0.19	0.16
Profitability 1	0.07	0.11	0.08	0.10
Profitability 2	0.06	0.2	0.11	0.08
Risk 1	0.76	0.51	0.08	0.4
Risk 2	0.56	0.7	0.15	0.22
leverage	0.44	0.46	0.46	0.37

A careful evaluation of the results reveals the following unambigous differences

(a) The bidder firms enjoy the larger size, higher growth, lower profitability and lower leverage than the target firms.

(b) The bidder firms are large, high growth, low profit, high risk and low leverage than the controlled bidder.

(c) The target firms outstripped the controlled targets in respect of all the factors, viz size, growth, profitability, risk and leverage.

The t-test (10% significance level) revealed the following.

(a) Between the bidders and the targets, only the difference in profitability is significant.

(b) Between the bidders and controlled bidders, the significant difference occurred for growth and risk only.

(c) Between the targets and controled targets, the differences are significant for all the variables except the size, the size differences is insignificant by our criterion of choosing the control targets.

How the above findings compare with those for other countries? Mueller's study (1980) across several countries namely, U.S., U.K., Belgium, Netherlands, Sweden, Germany, and France, finds a consistent pattern with respect to some variables (bidder firms tend to be larger and faster growing) and less consistent with respect to other variables (less consistency especially exists for the profit variable).

In terms of size, results for all countries indicate that bidder firms are significantly larger than selected target firms in their industries. For Malaysian takeovers, the bidder is slightly larger than target firms but the difference is not significant. This difference is probably due to different definition of takeover firms. All countries in Mueller's study except U.K. study looks at sample of full merger. This study and that of U.K. look at acquisition of a substantial stake, thus probably allowing for not a large size bidder to acquire a large size target.

As is consistent across all countries, Malaysian bidder firms grow at a fast or faster rate than the control or target firms. For the target firms, Malaysian takeover firms are faster growing than the control firm. This is a little different than in other countries whereby the target firms grow at about as fast or as in U.K. and West Germany, the growth is slower.

Malaysian takeovers are similar with Belgium and Netherlands in terms of profitability, in that the bidder firms profits are less than the control groups. Other countries are about equal with the control groups. For the targets, the Malaysian takeover firms are more profitable than the control firms . this is not consistent with all the other countries results.

In contrast with other countries, Malaysian takeover firm's profit variability (risk measure) shows a positive significant difference between bidder and control bidder firms (that is, bidder has higher variability). There is about equal difference between bidder and target firms, this is similar to the Netherlands and U.S. Most other countries shows bidder firms which is larger in size, to be less variable in profits than the target firms which are smaller. Malaysian bidder firms are on average about the same size as targets. As with the target and control target group, profit variability does not differ significantly and no clear pattern is observed across all countries.

Malaysian bidder firms tend to be lower levered than the control bidder and target firms. This differ from all other countries whereby bidder firms are shown to be highly levered or much more levered than control group firms. The Malaysian target firms are significantly higher levered than the control target, this is consistent with that in France and U.K.

What do the findings imply with regard to the determinants of takeovers? It is found that among the largest size firms, the ones facing low profitability and high risk, but enjoying high growth and low leveraged went to acquire the relatively large high growth, high profitability, high risk and high leveraged firms. This means that Malaysian takeovers was motivated by the size, growth, and profit considerations and was supported by the desire of having a balanced leverage. This is consistent with the economies of scale, managerial self-interest and displacement of inefficient manager's theories and partly with the risk reduction theory, as the takeover is aimed at lowering the financial risk. The synergy theory does not appear to hold good as only 9 out of the 37 bidder firms went for the horizontal type of takeovers, the rest are conglomerate type of takeovers.

4.2 Effects of Takeovers

The outcomes of takeovers could be seen in two ways. One by a comparison of the post-takeover charactristics of the different groups of firms and secondly, by the temporal changes in the characteristic variables between the pre- and the post-takeover periods across various firms' groupings. Thus, the data were analysed in these lines and the findings on the first approach are presented in Table 2 and those on the second approach in Table 3.

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Table 2: Post-takeover Characteristics: Mean Values

Determinant	Firms' Groupings			
	Bidders	Control Bidders	Targets	Control Targets
Size(Billion RM)	2083	1050	967	688
Growth	0.37	0.14	0.32	0.17
Profitability 1	0.05	0.053	0.08	0.08
Profitability 2	0.04	0.05	0.11	0.07
Risk 1	0.38	0.42	-1.6	0.15
Risk 2	0.94	0.3	-0.97	0.31
Leverage	0.41	0.45	0.45	0.37

A scrutiny of the result in Table 2 would reveal the following:

(a) The bidder firms have achieved larger size and higher growth and low leverage in comparison to their conterpart that did not make the takeover bid.

(b) The target firms attained larger size, higher growth, profit, risk and leverage than their counterpart or control firms.

The t-test on the significant differences among the above revealed the following:

(a) The difference between the bidder and control bidder firms were significant only for the size (especially for the horizontal group) and growth variables.

(b) The differences between the target and control target firms were significant only for the growth, profitability and leverage variables.

In terms of international comparison with other countries that uses Mueller's methodology, it is found that only U.S. and U.K. (only certain variables) and Australia did the post-takeover analysis. The analysis is only on the bidder or acquiring firms and not on the target firms since the target firms get merged and does not produce separate financial records for these countries.

Asset size and growth of Malaysian bidder firms are significantly larger and faster growing than control bidder firms. This is consistent with findings for U.S. and Australia.

Malaysian post-takeover profitability does not differ between bidder and control bidder group but as in U.K. there is no decline in the post period. This is unlike Meeks (1977) study of U.K. sample that found a decline in profitability. The Australian study too found that takeovers does not increase profitability although in the pre-takeover period, profitability levels were marginally higher for bidder firms over the control firms. In the U.S., profit level of bidder firms were lower compared to other firms in the industry. Compared to the control group, U.S. bidder firms show lower profit but were not statistically significant.

In terms of exposure to risk, Malaysian takeovers are similar to the Australian study where there is no statistical significant difference between bidder and control bidder, however risk exposure increased relative to pre-takeover period especially in post tax profit variability. The Malaysian and Australian study however differ from the

U.S finding where bidder firms were significantly less than control group, suggesting that mergers have reduce the riskiness of bidder firms.

Malaysian post-takeover leverage levels of bidder is lower than control bidder This result is not consistent with U.S and Australian study where leverage levels were significantly higher This suggests that Malaysian takeovers were not undertaken for the purpose of increasing debt capacity. For Malaysian target firms, a higher use of debt in the post-takeover period compared to the pre-takeover period has contributed to higher risk. This finding of higher post leverage level is consistent with Mat-Nor and Ramlee (1995).

What do these findings imply with regard to the effects of takeovers? The results of the effects or consequences from takeovers as presented in Table 3, reveals the following:

Table 3: Changes After Takeover: Mean Values

Determinant	Firms' Groupings			
	Bidders	Control Bidders	Targets	Control Targets
Size (Billion RM)	1470	474	567	298
Growth	-1.22	-0.07	-0.3	0.00
Profitability 1	-0.015	-0.018	-0.04	-0.02
Profitability 2	-0.02	-0.06	-0.09	-0.02
Risk 1	-0.41	0.37	-1 97	-0.34
Risk 2	1.39	0.32	-1.56	0.09
Leverage	-0.02	0.00	-0.03	0.00

(a) The bidder firms have achieved larger increase in size, lower decrease in growth rate as well as in leverage, and a slower decrease in profitability than its corresponding control firms.

(b) The target firms have gained large increase in size, and larger decrease in growth, profitability, risk and leverage.

Of the differences, the only significant ones are in:

(a) size and growth between the bidders and control bidder firms, and

(b) profitability between the target and its control firms.

In terms of growth rates, Mueller's study found that Netherlands and U.S. post-takeover rates were lower for the bidder firms relative to the control group firms. All other countries show no statistical significant difference in change in growth rates between merging and control group samples. Malaysian takeovers too show a similar pattern to Netherlands and U.S. sample result, that is, a slow down in post-period growth rates. However, the bidder firms were growing faster than the matched control bidder firm in both the pre- and post-takeover period. This result suggests that firms that use an expansion strategy through takeovers (that is using both internal and external growth strategy as opposed to only internal growth strategy) do not seem to achieve an above average growth rate.

Mueller (1980) does not find a consistent pattern across all the countries for the changes in profitability test. Belgium, Germany, U.K. and U.S. show weak evidence of improved profitability relative to control firms, especially to the after-tax profit. In France, Netherlands and Sweden, there was a relative decline in post-

takeover profitability relative to the control firms. Malaysian post-takeover profitability pattern is similar to Australian merged firm performance in that there is no significant difference from that of the control firms. If takeovers were to produce economic efficiency then it would be expected that cost would fall, leading to a fall in prices and expansion of sales and profits. The results however suggest that there is no improvement in economic efficiency for Malaysian takeovers.

An analysis of takeover effects test for improvement in economic efficiency or increases in market power by looking at effects of takeovers on profitability and growth. Other variables, namely, profit variability and leverage were not analyzed by countries using Mueller's methodology except in the Australian study. The Australian study reveals that post-takeover profit variability increase relative to control firms even though post-takeover profitability did not increase, implying that the bidder firms had problems in maintaining stable profit levels than control firms. This was explained to be due to higher use of leverage after takeover as a result of increased financing for these takeovers. Malaysian takeovers however indicate that there is no statistical significant difference between bidder and control bidder for both profit variability and leverage levels, probably because Malaysian bidder firms tended to issue shares to target shareholders in a takeover rather than paying in cash.

In summary, the long term effects of takeovers indicate that bidder firms are larger in size than control bidder but these firms grow at a significantly slower rate than control bidder group. There is no significant difference in profitability of bidder relative to control bidder, thus there is no indication of improved efficiency gains. There is also no significant difference between average changes in pre- and post-period for bidder firm and control bidders for risk and leverage levels.

For target firms, the effects of takeovers show post-takeover profit, risk, growth, and leverage to be lower than pre-period. But the average change of pre- and post- period indicate that targets underwent a larger degree of change than control target group, although not statistically significant except for the after-tax profitability ratio. The earnings after tax to equity (P2) ratio especially for conglomerate group showing a statistically significant result at 10% indicate that target's relative improved performance could be due to tax advantages from takeovers and not from improved operating performance.

5. Conclusions

The pre-takeover data suggest no unique theory of takeovers and thus supports the eclectic approach to takeovers in Malaysia as in other countries that uses Mueller's (1980) methodology. However, the post-takeover and the comparison of post and pre-takeover data overwhelmingly argue for the validity of the managerial self-interest theory. Takeovers have provided an edge in terms of the larger size bidder firms and has adversely affected the profitability of the target firms. Thus showed that the objective of increasing size seems to be achieved at the expense of profit. This is consistent with explanations given by Mueller (1969) and Singh (1971), that managers are willing to sacrifice some profit and present value of firm's stock just to increase size and growth. The partly varied findings of this study in relation to the findings of Mueller's (1980) study of seven countries and that of Australian study by McDougal and Round (1986) could be due to the period of the analysis and/or the peculiar environment of the Malaysian economy.

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