EARNINGS MANAGEMENT AND MALAYSIAN CORPORATE ACQUISITIONS

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Abstract

The primary objective of the current study is to investigate whether there is any manipulation of accounting earnings through discretionary accrual choices by acquiring firms in the period preceding the announcement and completion of acquisitions. 125 sample of share acquiring firms and 158 cash acquiring firms were analysed over the period 1991-2000. In addition, 125 industry and size-matched control companies are also selected from the population of non-acquiring firms in that particular year. The control group is used to provide information on how comparable firms, not involved in acquisition from the sample share-acquiring firms. The results in the current study provide evidence that in the year prior to the acquisition, acquiring firms in share for share acquisitions manage earnings upward. The result indicates that acquiring firms in Malaysia use accounting procedures in an attempt to increase their share price prior to share for share acquisition.

INTRODUCTION

The issue of earnings management continues to attract debate and controversy especially with the increasing concerns for transparency, corporate governance and other financial and non-financial disclosures. The practice of earnings management has often been viewed as an unethical practices by managers to achieve personal gains (Ronen and Sadan, 1981). Studies on earnings management around firm specific event have shown that managers of buyout firms (Perry and Williams, 1994), initial public offerings (Ahorany et al., 1993 and Teoh, Wong and Rao, 1998) and share for share acquisitions (Erickson and Wang, 1999) have an incentive to manage earnings in an attempt to reduce the purchase price.

In share for share acquisitions, the number of acquiring firm shares exchanged for each share of the target firm is determined by the price of the acquiring firm's share when the acquisition agreement is reached. As a result, the higher the price of the acquiring firm's share on the agreement date, the fewer the number of shares that must be issued to purchase the target firm. The relation between acquiring firm share price and shares issued in the transaction provides several incentives for the acquiring firm in attempting to increase accounting earnings prior to acquisition in order to raise the market price or the appraised price of its share. Besides the benefit of acquiring the target firm at a lower cost, existing shareholders also prefer a higher price to minimize the likelihood of earnings dilution (Erickson and Wang, 1999).

However, acquiring firms may choose not to manipulate earnings. Watts and Zimmerman (1986) argued that for earnings management to occur, the costs of undoing earnings management must exceed the cost of managing earnings. In addition, target firms have the resources and expertise to hire accountants, auditors and investment bankers to evaluate and be assured that the financial statements of the acquirer, including earnings are free from accounting manipulation. Thus, the acquirer may decide not to manipulate earnings upward prior to acquisition since the likelihood that any earnings management will be detected is high.

Thus, the current study examines whether Malaysian managers who would benefit from share for share acquisitions during the period 1991-2000 attempt to manipulate their earnings upward prior to the acquisition period in order to reduce the cost of buying the target. Currently, most of the studies on earnings management have been observed in countries with developed capital markets like that of United States, for example, De Angelo (1988), Jones (1991), Teoh, Wong and Rao (1998) and Erickson and Wang (1999). Since less attempt are made by any researchers in a developing market like Malaysia on this issue (Pourjalali, Iskandar and Aman, 2002), the current study will then provide several contributions to existing knowledge particularly on the influence of acquisitions onto manipulation of earnings by managers.

The rest of this paper is organised as follows. Section 2 summarises the recent empirical evidence. Section 3 describes the data selection procedure and the methodology used to compute earnings management. The discussion of the findings is placed in Section 4. The final section concludes the overall study.

PREVIOUS EVIDENCE

Earnings management occurs when managers use judgement in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company with the intent of obtaining some private gain (Healy and Wahlen, 1999, DePree, 1999). The widespread use of accounting information by investors and corporate analysts in valuing share has created an incentive for managers to manipulate earnings in an attempt to influence short-term share price performance prior to equity offerings (Teoh, Welch and Wong, 1998 and Erickson and Wang, 1998) and management buyouts (Perry and Williams, 1994 and Wu, 1997). Other possible motivations for managers to manage earnings include to increase corporate managers' compensation and job security (Healy, 1985), to avoid violating lending contracts (Healy and Palepu, 1990 and DeFond and Jiambalvo, 1994), or to reduce regulatory costs or to increase regulatory benefits (Healy and Wahlen, 1999).

Pourjalali', Iskandar and Aman (2002) provide evidence from the literature that companies manage earnings using Generally Accepted Accounting Principles (GAAP). Earnings management can be achieved by various means such as the use of accruals, changes in accounting methods, and changes in capital structure. Most studies focus on total accruals, specifically discretionary accruals, as the source of earnings management. For example, discretionary accruals are used as a measure of managers' earnings manipulations during import relief investigations (Jones, 1991). The results of the tests suggest that management make income-reducing accruals during the year of import relief investigations.

Studies addressing discretionary accounting choices prior to management buyouts have provided mixed results. The findings by DeAngelo (1988) stand in sharp contrast to those in Healy (1985) and DeAngelo (1986), each of whom found evidence of income manipulation in a different setting. DeAngelo (1988) found little evidence of earnings management by US buyout firms during the period 1973 - 1982 from an examination of changes in accruals. In analysing a sample of 175 management buyouts during 1981-1988, Perry and Williams (1994), however, provides evidence of manipulation of discretionary accruals in the predicted direction in the year preceding the public announcement of management's intention to bid for control of the firm. The results indicate that unexpected accruals are negative (income-decreasing) prior to management buyout as an attempt to reduce the purchase price. Wu (1997) also found that the income of 87 management buyout cases during 1980-1987 drop significantly before the management announces the management buyouts proposal. Further, they also provide evidence that the pre-MBO shares movements are significantly downward and that the decline of share prices is significantly associated with the decline in income.

Studies of earnings management on capital management for capital market have shown that earnings are managed to meet the expectations of financial analysts or management. Kasznik (1999) and Healy and Wahlen (1999) found evidence that firms in danger of falling short of management earnings forecast tend to manage earnings upward.

Banking and insurance companies have also provided a fertile ground for research on specific accruals used to manage earnings (Beaver, Ryan and Wolfson, 1989, Moyer 1990, and Scholes, Wilson and Wolfson, 1990). Loan loss reserves of banks and claim loss reserves of insurers are directly related to their most critical assets and liabilities, are typically very large

relative to net income and equity book values, and are highly dependent on management s judgement. Beaver and Engel (1996), Liu and Ryan (1995) and Liu, Ryan and Wahlen (1997) are among studies of bank loan loss provisions that found evidence of earnings management among banks, presumably for share market purpose. Studies of property-casualty insurance claim loss reserves, including Beaver and McNichols (1998), Penalva (1998), and Petroni, Ryan and Wahlen (1999) also found evidence of earnings management among insurers.

Recent studies have also examined whether managers overstate earnings in periods prior to equity offers. The findings indicate that firms report positive (income-increasing) unexpected accruals prior to seasoned equity offers (Teoh, Welch and Wong, 1998 and Shivakumar, 2000), initial public offers (Teoh, Wong and Rao, 1998) and share-financed acquisitions (Erickson and Wang, 1999). There is also evidence of reversal of unexpected accruals following initial public offers (Teoh, Wong and Rao, 1998) and share-financed acquisitions (Erickson and Wang, 1999). Teoh, Wong and Rao (1998) examine depreciation estimates and bad debt provisions surrounding initial public offers. They found that, relative to a matched sample of non-IPO firms, sample firms are more likely to have income-increasing depreciation policies and bad debt allowances in the IPO year and for several subsequent years. In a sample of 55 share for share acquisitions completed between 1985 to 1990 in the United States, Erickson and Wang (1999) found that in the quarters prior to acquisition, acquiring firms manage earnings upward in an attempt to increase their share price prior to acquisition. Since other things equal, a higher share price reduces the number of shares that the acquiring firms must use in the exchange.

DATA AND METHODOLOGY

Sample Selection

The current study focuses on a sample of acquiring firms listed on the mainboard of the Bursa Malaysia (BM) and had completed their acquisitions during the year 1991-2000. The list of firms as presented in Table 1 is obtained from the Investors Digest. Data on earnings are obtained from BM Companies Annual Handbook and Annual Report for the period 1991 to 2000. The financial data used in the current study covers one year preceding the listed year and the listed year. Unlike Erickson and Wang (1999) who use the most recent quarter before the acquisition announcement date, the current study uses the yearly financial report similar to that used by Wu (1997)[1].

[1] *Not all firms listed in BM issue quarterly financial reports. The quarterly financial reports also do not give enough information, particularly on details of current assets and the cash flow statement.*

Table 1
Construction of Data Set

	No. of Companies
Initial bids identified	610
Dormant targets	45
Acquisition lapsed	134
Asset acquisitions	83
Incomplete data	56
Final List	292

Note:
The initial list of acquisitions for the period 1991-2000 was identified by examining the list of proposed acquisitions in the Investors Digest and then cross-checked with BM Annual Companies Handbook and the respective company's files at BM library.

Financial and unit trust firms were excluded from the current study due to different statutory requirements in preparing companies annual report. As shown in Table 1, the initial bids identified in Investors Digest were 610. Acquiring firms involved in taking over dormant company (45), in acquiring fixed assets (83) and lapsed acquisitions (134) are excluded from the initial list. Further elimination of 56 acquiring firms lacking complete accounting data necessary for the empirical analysis results in a final sample of 292 firms, consisting of 125 share for share-acquiring firms and 158 cash acquisitions.

Sample distribution of share for share-acquisition and cash acquisition firms by year is depicted in Table 2. There are more cash than share acquisitions over the period 1991-2000.

Table 2
Sample distribution by type of acquisitions and year

Panel A: Sample distribution of share for share acquisitions by year

1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
9	16	12	18	18	19	9	3	12	9	125

Panel B: Sample distribution of cash acquisitions by year

1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
2	2	4	4	26	39	27	13	15	26	158

Note:
The sample includes share for share and cash acquisitions completed during 1991-2000 as reported by Investors Digest. A final sample of 292 firms was identified from these sources consisting of 125 and 158 share and cash acquisitions, respectively.

Similar to Teoh, Wong and Rao (1998), industry-matched control companies are also selected in the current study from the population of non-acquiring firms in that particular year. Size matching (based on the book value of total assets at the end of the year prior to acquisition) was also undertaken as far as possible although the absence of full information on all potential controls made this more difficult. The control group is used to provide information on how comparable firms, not involved in acquisition from the sample share-acquiring firms. It is assumed that firms in the same industry and of similar size are subject to similar economic and competitive factors, and therefore have comparable operating, investing and financing set. Similarly, studies by Abdul Rahman (2000), Loughran and Ritter (1995) and Ritter (1991) used control companies as a benchmark to examine companies performance. A total of 125 control firms where found to match the share for share acquiring firms.

Frequent, or active, bidders (bidders making more than 1 bid in subsequent years) are not excluded from the current study. There is a possibility that acquiring companies that attempted a second acquisition are those that manage earnings in the first acquisition and therefore undertake earnings management in further acquisitions. Whether active bidders perform more earnings management than one-time acquirer is an empirical question. However, there is a possibility of introducing bias in the analysis if active bidders are excluded from the sample. In addition, there is a practical problem of data availability. Excluding frequent bidders would significantly reduce the data set.

Research Design

The Investors Digest is used to obtain acquisition announcement and agreement dates for the sample of acquiring firms. The announcement date is defined as the date that the intention of an acquisition was first revealed in the Investors Digest. This date corresponds to the news release disclosing the commencement of negotiation of an acquisition. The agreement date is the date that a formal agreement concerning the terms of the acquisition is reached and reported in the company's files and BM-Online. For all sample firms, the period with an earnings release immediately preceding the first announcement of an acquisition is considered to be year 0 (t_0). The first year preceding year 0 is defined as year -1 ($t\text{-}_1$).

Similar to Erickson and Wang (1999), total accruals in the current study are defined as net income minus operating cash flows[2]. Murphy and Zimmerman (1993) regard the difference between accounting profits and cash flows, as the portion of profits over which manager can exercise the most discretion. Operating cash flows are estimated by working capital from operations minus the adjusted changes in working capital accruals (that is, the change in current assets minus the change in current liabilities). Working capital from operations is estimated by the sum of income before extraordinary items, depreciation and amortization, extraordinary items and discontinued operations, deferred taxes, equity in net loss (earnings), and loss (gain) on sales of property, plant and equipment and investment.

[2] *Jones (1997) and Wu (1997) defines total accruals as the change in noncash working capital (excluding current maturities of long term debt) less total depreciation expense for the current period.*

According to Perry and William (1994) and Teoh, Wong and Rao (1998), total accrual is composed of both discretionary and nondiscretionary accruals. Teoh, Wong and Rao (1998) defined discretionary accruals as managerial interventions into financial reporting process. For example, if the allowance for doubtful accounts were changed because of management's self interest, the change in accruals would be discretionary. In contrast, nondiscreationary accrual is the change in a company's underlying performance. It is the accruals that change as a result of management's accounting decisions that are of interest to the firm. For example, during a period of economic growth, one would expect accruals such as accounts receivable and accounts payable to change as sales increase without any earnings management occurring.

Similar to Erickson and Wang (1999), the discretionary or unexpected accruals are estimated from the firm-parameters, α_{it}, β_{1it}, β_{2it}, of every sample share-acquiring firm *i* in year t, obtained by the following ordinary least squares regression analysis.

$$TA_{it} / A_{it}\text{-}1 = \alpha it\ (1/A_{it} - {}_1) + b_{1it}\ (DREV_{it} / A_{it} - {}_1) + b_{2it}\ (PPE_{it} / A_{it} - {}_1) + \epsilon_{it}$$

Equation 1

where

A_{it-1} = total assets for sample firm i at the end of year *t* - 1
$DREV_{it}$ = change in net revenues for sample firm i from the year *t* to year *t* - 1
PPE_{it} = gross property, plant and equipment for sample firm *i* at the end of year *t*
α_{it}, β_{1it}, β_{2it}, = firm-specific parameters for sample firm *i* in year *t*
ϵ_{it} = error term for sample firm *i* in year *t*

Like prior studies (for example, Jones, 1991,Wu, 1997 and Erickson and Wang, 1999), the variable in property, plant and equipment and the change in revenues are used to control for changes in nondiscretionary accruals caused by changing conditions. Total accruals includes changes in working capital accounts, such as accounts receivable, inventory and accounts payable, that depend to some extent on changes in revenues. Management can increase accruals, for example, by recognizing revenues with credit sales, even if the cash payments can be delayed or if the product can be returned, by delaying recognition of expenses through assumption of a low provision for bad debts, or by deferring recognition of expenses when cash is advanced to suppliers. Gross property, plant and equipment are included to control for the portion of total accruals related to nondiscretionary depreciation expense. Gross property, plant and equipment are included in the expectations model rather than changes in this account because total depreciation expense is included in the total accruals measure. All variables in the accruals expectations model are scaled by lagged assets to reduce heteroscedasticity (Jones, 1991). Working capital accruals are expected to increase with revenues, and depreciation accruals are expected to increase with property, plant and equipment. Therefore, the coefficient for change in revenues is expected to be positive and the coefficient for property, plant and equipment is expected to be negative (Erickson and Wang, 1999).

In addition to equation 1, the current study also uses an extension of the cross-sectional Jones (1991) model for estimating the firm-parameters ((it, (1it, (2it,), similar to that used by Wu (1997) and Teoh, Wong and Rao (1998). This model is necessary to decompose accruals into two components, one that is dictated by firm and industry conditions (non-discretionary), and one that is presumed to be managed by management (discretionary).

As mentioned earlier, total accruals (TA) is composed of both discretionary accruals (DA) and nondiscretionary accruals (NDA).

Total Accruals = Discretionary Accruals + Nondiscretionary Accruals
TA = DA + NDA

Equation 2

Total Accruals (TA) for share-acquiring firm in a given year (from Equation 2) will be estimated from a cross sectional regression in that year of current accruals on the change in revenues (revenues in year t minus revenues in year *t-1*) and property, plant and equipment using data of control companies (excluding the acquiring firms):

$$TA_{jt} / j_{jt-1} = \alpha_{it} (1/A_{jt-1}) + b_{1jt} (DREV_{jt} / A_{jt-1}) + b_{2jt} (PPE_{jt} / A_{jt-1}) + \in_{jt}$$

Equation 3

where

A_{jt-1} = total assets for control firm *j* at the end of year *t* - 1
$DREV_{jt}$ = change in net revenues for control firm *j* from the year t to year *t* - 1f
PPE_{jt} = gross property, plant and equipment for control firm j at the end of year *t*
α_{it}, β_{1it}, β_{2it} = firm-specific parameters for control firm *j* in year *t*
$\in_{jt}$ = error term for control firm *j* in year *t*

In order to reduce heteroscedasticity in the data, all variables in the regression are scaled by closing assets for the year *t*-1. As mentioned by Teoh, Wong and Rao (1998), the cross-sectional approach automatically adjust for the effects of fluctuating industry wide economic conditions that influence independent of any earnings management in each year. The estimated β_{1it} and β_{2it} will be used in the next equation.

Nondiscretionary Accruals (NDA) will be calculated as;

$$\mathbf{NDA}_{it} = \alpha_{it} (1/A_{it-1}) + b_{1it} (DREV_{it} / A_{it-1}) + b_{2it} (PPE_{it} / A_{it-1})$$

Equation 4

Where

α_{it} = The estimated intercept from equation 3
b_{1it} and b_{2it} = The estimated slope coefficients for share acquiring firm *i* from equation 3
$TA_{i,t-1}$ = Total Assets for share acquiring firm *i* at the end of year *t* -1
$DREV_{it}$ = change in net revenues for sample firm *i* from the year t to year *t* - 1
PPE_{it} = gross property, plant and equipment for sample firm i at the end of year *t*

Therefore, discretionary accruals for sample share-acquiring firm *i* in year *t* (DA_{it}) can be defined as:

$$DA_{it} = TA_{it} - NDA_{it}$$

Equation 5

where

TA_{it} = total accruals for sample firm *i* at the end of year *t*
NDA_{it} = nondiscretionary accruals for sample firm *i* at the end of year *t* (from equation 4)
$= \alpha_{it} (1/A_{it-1}) + b_{1it} (DREV_{it} / A_{it-1}) + b_{2it} (PPE_{it} / A_{it-1})$

The discretionary accruals (DA) are the superior proxy for earnings management that will be tested during the period prior to share for share acquisition.

RESEARCH FINDINGS

Descriptive Statistic

Table 3 presents descriptive statistics for acquiring and non-acquiring firms over the period 1991-2000.

Table 3
Descriptive statistics for a sample of 125 share for share acquisition (including the control companies) and 158 cash acquisition completed during the period 1991-2000.

	Mean	Median	Standard Deviation (RM million)	Minimum	Maximum
Panel A: Share for share acquisition (n=125)					
Total Assets	913	20	2825	5	24205
Revenues	46	11	215	-1138	881
Property, plant and equipment	529	83	2858	0.1	31324
Panel B: Control companies (n=125)					
Total Assets	700	208	1681	37	15107
Revenues	28	9	234	-1719	1226
Property, plant and equipment	268	110	538	5	3475
Panel C: Cash acquisition (n=158)					
Total Assets	1267	587	2559	5	26526
Revenues	133	51	551	-2401	4209
Property, plant and equipment	408	162	701	1	5152

Note:
Revenues and property, plant and equipment are in the year of acquisition, while total assets are in the year immediately preceding the year in which an acquisition was reached. The final sample of share for share acquisition consists of 125 acquiring firms. 125 control firms were selected from the population of non-acquiring companies, matched by similar industry and size to the share-acquisition firms. The sample also includes 158 cash acquisition firms completed during 1991-2000 as reported by Investors Digest.

The data in Panel A of Table 3 indicates that the share-acquiring firms obtain mean yearly revenues of RM46 million and total assets of RM913 million. The median revenues and total assets for the share-acquiring firms are RM11 million and RM20 million, respectively. For comparison purposes, the current study obtained from the same sources, non-acquiring firms as control during the same period. Panel B of Table 3 indicates that the mean revenues and total assets for control firms are lower than the sample share acquiring firms, RM28 million and RM700 million, respectively. In addition, similar information on firms completing cash acquisition is shown in Panel C. The cash acquiring firms indicate a mean of RM133 million revenues, higher than the revenues for share-acquisition and control firms. The median in revenues of RM51 million is also higher than that of share-acquiring and control firms. Both the mean and median of total assets for cash-acquiring firms are also higher than the mean and median of total assets for share-acquiring and control firms.

In summary, share-acquiring firms have on average higher Total Assets, Sales and Property, Plant and Equipment relative to their controls. There is a possibility that management can increase current accruals, for example by advancing recognition of revenues with credit sales (trade receivables) and depreciation accruals with the increase in property, plant and equipment. Therefore the above figures show that there is a possibility that the share-acquiring firms in this sample manage their earnings through sales and depreciation prior to acquisitions. The following sections examine the possibility.

Parameter-Estimates

Similar to the study by Erickson and Wang (1999), the variables change in revenues, and property, plant and equipment are used to control for the expected components in total accruals (Equation 1). Working capital accruals are expected to increase revenues, resulting in a positive coefficient for change in revenues. Depreciation accruals are expected to increase with property, plant and equipment, thus the expected sign for the coefficient is negative.

The parameter-estimates for share and cash acquisitions are shown in Table 4. For share acquisition, the coefficient on change in revenues is 0.137 (t-statistic = 3.495) and the coefficient on property, plant and equipment is -0.187 (t-statistic = -2.066). The signs of both coefficients are in the predicted direction and statistically significant at the 0.01 and 0.05 level, respectively. Similar to the result found by Erickson and Wang (1999), the predicted direction of the coefficients in the current study provide evidence that acquiring firms manage earnings upward prior to the agreement of a share for share acquisition[3].

[3] *Erickson and Wang (1999) provide evidence on the source of the documented earnings management when they examine accrual components based on the industry of the sample firms. For example, manufacturing firms have the ability to increase production in a given quarter such that inventory absorbs additional fixed costs ultimately resulting in income increasing accruals (Erickson and Wang, 1999, p.166). They found that greater unexpected increases in inventory occur for manufacturing firms in pre-merger quarters. They also manage to find evidence of income increasing accruals related to changes in accounts payable.*

Table 4
Parameter-estimates of pre-acquisition sample firms of 125 share for share acquisition and 158 cash acquisition completed during the period 1991-2000 (figures in parentheses represent t-statistics).

$TA_{it} / A_{it-1} = \alpha_{it} (1/A_{it-1}) + b_{1it} (DREV_{it} / A_{it-1}) + b_{2it} (PPE_{it} / A_{it-1})$ **equation 1**

	Share Acquisition	Cash Acquisition
$\alpha_{it} (1/A_{it-1})$	0.240 (3.184)[a]	0.113 (4.974)[b]
$b_{1it} (DREV_{it} / A_{it-1})$	0.137 (3.495)[a]	-0.034 (-1.009)
$b_{2it} (PPE_{it} / A_{it-1})$	-0.187 (-2.066)[b]	0.023 (0.587)
Adj. R^2	0.415	0.934

Note:
TA_{it} is total accruals for firm i in year t measured by net income minus operating cash flows. Operating cash flows are estimated by working capital from operations, minus the change in accounts receivable, minus the change in inventory, minus the change in other current assets, plus the change in other current liabilities. $DREV_{it}$ is the change in revenues for firm i in year t. A_{it-1} is the total assets for firm i in year t. PPE_{it} is the property, plant and equipment for firm i in year t-1.
[a] *Statistically significant at the 0.01 level*
[b] *Statistically significant at the 0.05 level*

Table 4 also shows the parameter estimates for cash-acquiring firms. The coefficient on change in revenues is -0.034 (t-statistics = -1009) and the coefficient on property, plant and equipment is 0.023 (t-statistics = 0.587), but the coefficients are not significantly different from zero. These results indicate that cash acquisition firms did not report significant levels of income increasing accruals during pre-acquisition periods.

Discretionary Accruals

To test the robustness of the result, the current study also uses an extension of the cross-sectional modification of the Jones (1991) model, similar to that used by Wu (1997) and Teoh, Wong and Rao (1998), to estimate the parameters used in measuring the expected total accruals for share-acquiring firms (Equation 3). The modified version of the Jones (1991) model is said to provide the most powerful tests of earnings management (Pourjalali', Iskandar and Aman, 2002) as it automatically adjust for the effects of fluctuating industry wide economic conditions that may influence the existence of earnings management (Teoh, Wong and Rao, 1998).

Table 5
Discretionary accruals of 125 share for share acquisition completed during the period 1991-2000.

$DA_{it} = TA_{it} / A_{it-1} - \alpha_{it} (1/A_{it-1}) + b_{1it} (DREV_{it} / A_{it-1}) + b_{2it} (PPE_{it} / A_{it-1})$ **equation 5**

(*Z and t* - statistic in parathensis)

Mean	Median	Standard Deviation	Minimum	Maximum
0.126 (2.015)[b]	0.002 (3.468)[a]	0.69	-1.24	4.44

Note:
$DA_{it} = TA_{it} - NDA_{it}$ where TA_{it} is total accruals for firm *i* in year *t* and NDA_{it} is the nondiscretionary accruals for sample firm *i* in year *t*.
[a] Statistically significant at the 0.01 level
[b] Statistically significant at the 0.05 level

Using the One-Sample T-Test and Kolmogorov-Smirnov Test, the mean and median of discretionary current accruals shown in Table 5 is positive 0.126 and 0.002, respectively and they are significantly different from zero. The results in this section provide evidence that managers manipulate earnings upward in the year prior to acquiring target. The favorable earnings in the year prior to acquisition may improve the share price of the firm. The higher the price of the acquiring firm's share on the agreement date, the fewer the number of shares that must be issued to purchase the target firms. The result is consistent with Erickson & Wang (1999) who found that acquiring firms manage earnings upward in the periods prior to acquisition announcement.

CONCLUSION

The primary objective of the current study is to investigate the manipulation of accounting earnings in the period preceding the announcement and completion of acquisitions by a sample of acquiring firm through discretionary accrual choices. To do so, 125 sample of share acquiring and control firms and 158 cash-acquiring firms were analyzed over the period 1991-2000.

The discretionary or unexpected accruals are estimated from the firm-parameters and the results indicate that unlike cash acquiring firms that do not report earnings management, share acquisition firms report significant levels of income increasing accruals during pre-acquisition periods. The result is robust on the models used in estimating the firm-parameters. Using an extension of the cross-sectional Jones (1991) model, the results of the current study provide evidence that in the year prior to the acquisition, acquiring firms in share for share acquisitions use accounting procedures to manage earnings upward in an attempt to increase their share price. As a result, fewer shares need to be issued to purchase the target firm.

The results in the current study provide several avenues for future research. Future research may want to examine the means used by management to manipulate earnings prior to acquisition. For example, management may manipulate earnings through the timing of income recognition. Another is to examine the pre-acquisition share price movement. One purpose

of acquisition-motivated earnings management is to increase the pre-acquisition share price. Further research is to document the association between the pre-acquisition increase in share price and the improvement in pre-acquisition earnings.

Besides, further research may want to examine whether the incentive effect on opportunistic accrual choices is conditioned upon the degree of external monitoring by outside stakeholders. As a proxy for the degree of external monitoring, the study may use the level of shareholdings by financial institutions, for example, commercial banks, insurance companies, etc.

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