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Auditor Switch Decision of Malaysian Listed Firms: Tests of Determinants and Wealth Effect

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ABSTRAK

Kajian ini menilai rasional ekonomi untuk mengganti juruaudit oleh firma-firma tersenarai dengan meneliti kesan keputusan ini terhadap perubahan harga saham firma-firma tersebut (atau dikenali juga sebagai kesan harta). Keputusan pihak pengurusan firma untuk mengekal atau menggantikan juruaudit ini melibatkan satu perubahan ke atas firma-firma audit yang berbeza kualiti. Kualiti audit ditakrifkan dengan mengklasifikasikan firma-firma audit kepada firma-firma Tahap 1 (Big-5) dan firma-firma Tahap 2 (bukan-Big 5). Ciri yang membezakan antara dua kumpulan produk audit dipercayai menjadi kredibiliti yang dibawa oleh setiap kumpulan dalam perjanjian audit. Faktor-faktor yang berhubung dengan pilihan firma audit dan perubahan untuk ciri-ciri firma berkaitan pilihan juruaudit disiasat menggunakan model regresi logistik. Hasil kajian menunjukkan bahawa penggantian juruaudit oleh firma-firma tersenarai sebahagiannya diterangkan oleh perubahan dalam pengurusan dan pertumbuhan perolehan. Perubahan dalam ciri-ciri firma seperti pertumbuhan aset, pembelian aset tetap kepada jumlah aset, kemampuan mempengaruhi orang lain dan perubahan dalam aktiviti kewangan menerangkan penggantian juruaudit. Hal ini menunjukkan tiada bukti kesan harta signifikan daripada pengumuman penggantian juruaudit.

ABSTRACT

This article examines the economic rationale for auditor change by Malaysian listed firms by examining audit switch effect on share prices. The auditor change decision by management to retain or to change involves a switch across audit firms with different quality. Audit quality is defined by classifying the audit firms into Tier 1 (Big-5) firms and Tier 2 (non-Big 5) firms. The distinguishing attribute between the two groups of audit products is believed to be the credibility that each group brings to the audit engagement. Factors associated with the choice of audit firm and changes for firm characteristics associated with auditor choice were investigated using the logistic regression model. The findings show that the auditor switch of Malaysian listed firms is partly explained by changes in management and turnover growth. Changes in firms' characteristics such as asset growth, purchase of fixed asset to total asset, leverage and changes in financing activities explain auditor switches. There appears to be no evidence of significant wealth effect from auditor switch announcements.

INTRODUCTION

Accounting literature on auditor change decision and its implications on firm's value, credibility of financial reporting and cost of monitoring management activities is well documented in the literature emanating from the developed countries. Auditor switch decision involves

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change of incumbent auditor resulting in the choice of quality differentiated audit firms to realign the characteristics of the audit firm with the growing needs of clients under changing circumstances. Changes in management, perceived expertise of audit firms and deterioration of financial health of clients have been found to be associated with auditor change/ switch decisions. Changes in a firm's activities and perception of advances in audit technology have been shown to be associated with the choice of quality differentiated audit firms.

Changes in management might result in replacement of the incumbent auditor with a view to imbibe fresh ideas to enhance the firm's expansion policy under a changed management. Similarly, auditor replacement will be initiated if the existing audit firm lacks the expertise to keep up with the firm's expansion policies and its changed internal control systems. Firms experiencing consistent deterioration in performance may also decide to replace the incumbent audit firm with a more compliant auditor in an attempt to evade a qualified report detrimental to the value of the firm.

Change in firm's activities (expansion, contraction, financing, performance, etc.) and audit technology creates demand for the choice of quality differentiated audit firms. The rationale for choosing a relatively higher quality audit firm might be due to the growing needs of the firm, to take advantage of the audit firm's reputation. The choice of a lower quality audit firm might be prompted by a sudden contraction of business activities, to gain an ability to negotiate audit comments to reflect management's view rather than an unsolicited "fair view" as well as a desire to lower costs of engaging audit services.

Due to asymmetry of information between principals and management, management of growing firms might redirect resources, as pecuniary and non-pecuniary benefits on the job, at the expense of shareholders. The shareholders have to incur costs to ensure that management's activities are consistent with shareholders' objectives. Management of highly levered firms might be tempted to transfer wealth from their shareholders by engaging in risky investments beyond that sanctioned by shareholders. Engaging relatively higher quality audit firms mitigates against these agency costs elements of management but which are ultimately borne by shareholders.

Revaluation effect of auditor switch has been an issue of interest among investors and unlike corporate dividend and earnings announcements, which reflect a real change in expected corporate performance, auditor change announcements convey no direct apparent economic information. The economic effect from the latter event is the signal associated with different investors' interpretation about the quality of audit services provided by the auditor. Investors are observed to utilise the auditor change/switch announcements to revise their expectation of the firm's expected future cash flows, and hence its share prices. A change to higher prestige auditors might be perceived as an improvement in audit services and hence an expected positive revaluation effect may result. Similarly, a change to lower prestige audit firms might be perceived as negative news. Evidence (Nichols and Smith 1983; Eichensher *et al.* 1989) suggests that larger audit firms provide higher quality audit services by offering greater credibility to clients' financial statements than the small audit firms.

Though there is substantial documentation on determinants and revaluation effect of auditor switch announcements in developed markets, there is a hardly any documented evidence on similar issues in developing markets, like Malaysia. This research examines the determinants and the revaluation effect of auditor change announcements of firms listed on the KLSE. Section 2 presents literature on the economic rational for auditor switch. Section 3 provides discussion on methodology and data collection. Section 3 is further divided into test model, abnormal returns measures and statistical tests. Section 4 provides discussion on findings for simple parametric test, logistics regression and event study methodology. The final section summarises the findings of the paper.

LITERATURE REVIEW

The theory of the firm as amended to include Agency Problem emphasises the importance of monitoring management activities. Jensen and Meckling (1976) suggest that auditing is one monitoring device that can mitigate agency costs, implying a need for independent audit services. Based on Watts and Zemmerman's (1978) work, DeAngelo (1981a; 1981b) developed a demand and supply rationale for audit quality. Audit

quality is defined as the probability that an auditor will both discover the breach of contract (material mis-statement) and subsequently actually report it. It is implied that auditors specialise in supplying various level of audit quality and audit firm size is an effective surrogate for audit quality. Firms change their auditors to ensure a desired quality of audit service.

An analogy from product differentiated hypothesis is that firms use auditor choice as a signalling device to reveal their desirable characteristics. Investors incorporate the arrival of new information (choice of quality auditor) and re-evaluate the firm's value. Investors are willing to pay a relatively higher price for better performing firms. Holthausen and Verrecchia (1990) suggest that firms appear to signal their *ex ante* uncertainty by hiring a higher prestige audit firm to perform their audit. This signal is credible to the market since the auditor's compensation is higher exhibiting firm-specific reputation capital. Firms with unfavourable information would prefer a lower quality auditor.

The literature on auditor change documented in the developed markets offers several explanations for factors affecting both switching and its affect on share revaluation. Early work on these issues by Burton and Robert (1967) and Carpenter and Strawser (1971) provide evidence on the determinants of auditor switch decisions. They documented a positive relationship from changes in management, changes in new financing and switching auditor.

Qualified audit reports are important in determining auditor switch. Managers strategically use switch decisions to avoid any unfavourable information release to investors (Chow and Rice 1982; Crawswell 1988; Dye 1991; Citron and Tafler 1992). However, the findings of Gul *et al.* (1991) and Takia *et al.* (1993) did not support this notion. Other factors include the demand for additional audit service (Burton and Robert 1967; Lurie 1977), firms' growth (Lingbeck and Rogow 1978), financial distress (Schwart and Menon 1985; Dhaliwal and Schwartzberg 1993), and the importance of audit fee to corporate management decision (Bedingfield and Loeb 1974; Ettredge and Greenburg 1990).

There is evidence of a significant relationship between firm size, growth and choice of auditor (Healy and Lys 1986; Johnson and Lys 1986; Simunic and Stein 1987). In general, firm size increases contribute to agency costs since it creates a vast opportunity for managers to consume non-pecuniary benefits thus resulting in a demand for a quality audit firms (Tier 1) (Fama and Jensen (1983a; 1983b)). Alternatively, Johnson and Lys (1986) argue that fixed investment in the auditor error detection technology leads to specialisation in market segment and difference in technologies and cost function across market segments are likely to be reflected by difference in audit firm's size (Francis and Wilson 1988). Palmrose (1984), Eichenseher and Shields (1986), Johnson and Lys (1990) showed a positive association between leverage and choice of Tier 1; negative association for Tier 1 audit firms which underwent merger activities (Healy and Lys 1986). Healy and Lys also assert that clients who issue new debt securities remain with Tier 1 audit firms to take advantage of its reputation and thereby lower investors' information costs in assessing the investment quality. Francis and Wilson (1988) provide support for an hypothesised association between agency costs and choice of brand name after controlling for growth and client size.

Evidence of market reaction on auditor switch decision is inconclusive. Fried and Schiff (1981) examined the disclosure requirement by SEC and the degree of market reaction to such disclosures surrounding the auditor changes. The findings suggest a negative effect on average. The literature offers several explanations for negative revisions in stock prices, which, among others include, substantial direct and indirect cost associated with auditor switch and investor perception of poor economic prospect of firm's operating, financing and performance. Dupuch and Simunic (1982) suggest that firms switching to higher prestige audit firms will yield a positive response while switching to lower prestige audit firms will have negative response from market participants.

Smith and Nichole (1982) documented a dispute over accounting and auditing principles with auditors prior to the auditor switch and those of client firms which did not disclose any dispute. A systematic price decline was reported surrounding the auditor switch for a client firm which reported a dispute with the auditor.

Johnson and Lys (1990) examined the market reaction to voluntary auditor changes

and reported no price reaction. Davidson and Gribbin (1995) documented a negative abnormal return to the announcement of auditor change and postulated that it might be due to the market's lack of confidence about the motive for the change. John *et al.* (1999) showed a negative market reaction to auditor resignation and suggested that auditor resignation from office is likely to be a cost signal for audit firms particularly when a client firm is a listed company.

DATA AND METHODOLOGY

One hundred and thirty-five firms that switched their auditors over the period 1986 to 1996 were sampled. The complete data set for all analysis was available for 108 firms. The sample was verified using annual reports and announcement dates for auditor changes were obtained from the minutes of the annual general meeting. The revaluation effect of auditor switch was analysed using stock prices and Composite Index values extracted from the daily diary of KLSE.

Following Zurada *et al.* (1998), the logistic regression model is used to analyse the decision to change, retain auditor or (switch to higher or lower prestige audit firms). This model avoids normality assumptions when the dependent variable is dichotomous and produces highest classification accuracy for the traditional dichotomous response variables. The functional form of a logistic cumulative density function:

$$P\ (Y= 1|X) = \exp\ (\Sigma\beta_k\ X_k)/[1+\exp(\Sigma\beta_k\ X_k)] \quad (1)$$

The unknown parameters (α, β) are estimated using Maximum Likelihood Estimators (MLE) in contrast to ordinary regression models which are estimated by the method of Least Squares Estimators (OLS). Since the likelihood equations for logit equations are non-linear in the parameters to be estimated, algebraic solutions are not obtainable and therefore approximation by standard iterative algorithms is used.

Test Model

Parametric Test

The parametric test of the differences in the mean value of the characteristics of sampled firms (firms changing their audit firms) and control firms (client firms that did not change their audit firms) was conducted. The characteristics are turnover, average asset, acquisition, of fixed asset return on asset, leverage and liquidity position of the firms. A similar test was also conducted to examine the difference among client firms associated with quality differentiated audit firms.

Auditor Change Model

The stepwise logistic regression technique was selected to ascertain the important determinants of audit switch decision. The functional form of the regression equation is as follows:

$$Z = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 \ldots + \beta_kX_k + \varepsilon \quad (2)$$

Z= A with A = 1 or 0 indicating that a client firm did (1) or did not switch auditors (0). X = the variables identified for the model. These are management change (MGTCH), average acquisition of fixed asset to total asset (ACQUI), turnover growth (GROWTH) both prior and after the auditor switch, liquidity (LIQ), firms leverage (LEV), average returns on asset (AROA), average earnings per share (EPS), qualified audit report both prior and after the auditor switch.

Change in management could serve as principal-agents contractual arrangement as new management could demand for the replacement of an incumbent auditor with a new one with whom it has favorable dealings in the past and who will bring new ideas that is instrumental to the firm's expansion policy. This is measured by taking value of one if there is a change in management or zero otherwise. Rapid growth could be a measure of principal-agent contract. Clients who are constantly acquiring subsidiaries and expanding into new markets would demand new auditors who are more effective in discharging auditing service. Rapid growth is measured by percentage changes in turnover growth three years prior and three years after the auditor switch. Auditor effectiveness is measured by the size of the audit firm, that is whether the audit firm is a member of higher prestige auditor or otherwise prior to the auditor change. This measured by taking the value of one if pre-switch audit firm was a member of higher quality (Tier 1) audit firm or 0 for otherwise. Client firms whose reputation is tarnished by its poor performance, corporate management will try to change auditors to avoid

any unfavourable information disseminated to the capital market. A qualified report, average return on asset, average earnings per share and liquidity of the firms are used as proxy for client's reputation. Qualified audit report is a binary variable which takes the value of 1 if auditor issued qualified report one or two years prior to or after auditor switch or otherwise. An operational variable such as audit fees takes the value of 1 if there is a reduction in audit fee subsequent to auditor switch or otherwise.

Auditor Choice Model

The analysis of the firms' characteristics and the direction of auditor changes (Tier 2 to Tier 1 audit firms and vice versa) are done using logistic regression model. Previous studies (Johnson and Lys 1990; Francis and Wilson 1988) used similar models to determine the characteristics of the firms which are associated with direction of the auditor changes. The hypothesised relationship may be expressed as follows:

$$Y_j = \alpha_{j\iota} + \Sigma\lambda_j X_j + \varepsilon_{j\iota} \qquad (3)$$

where

Y_j = 1 indicating firms switching to higher prestige (Tier 1) audit firms and 0 indicates firms switching to less prestige (Tier 2) audit firms.

X_j = predictor (independent) variables, and

$(\lambda_1, \lambda_2, \lambda_3, \ldots, \lambda_k)$: the coefficient of the predictor variables.

Variable Measurements

The frequently used variables to proxy for the firm's change in activities over time are asset growth, asset size, turnover growth, changes in acquisition, firm's leverage, changes in financing, changes in operating cash flow, and average returns on asset.

Expansion: Expansion entails increasing in scope, geographical dispersion and volume of client's activities. The corresponding increase in quantity and complexity of accounting transactions results in economies for larger auditors, which provide high quality audit service (De Angelo 1981). The expansion or contraction is proxied by four operational variables namely annual growth in total assets three years prior to and three years after the switch: it is indicated as GRTHB and GRTHA respectively. Changes in average acquisition of fixed to total asset is abbreviated to CHACQ and annual growth of sales prior to the switch is abbreviated to TURNGRTHB. Therefore, the larger the size of the client's growth, the greater the demand for the services of larger audit firms.

Financing: The operational variable to proxy financing is estimated from newly issued debt and equity ratios measured as "Long term debt + Equity)/Total Asset" abbreviated to CHFA. Firms that change to larger audit firms are predicted to exhibit a higher level of post-audit changes in financing compared to ones that change to smaller audit firms (Johnson and Lys 1990). We expect a positive correlation between a firm's financing activity and the choice of higher prestige audit firms.

Profitability: The profitability of the firm is measured by two operational variables: average returns on asset (AROA) and average cash flow (ACFL). If poor returns and cash flows are exhibited prior to the event, client firms are likely to change to smaller audit firms. Therefore, the profitability prior to the auditor change should be positively correlated with auditor size.

Audit Risk: The audit risk relates to the probability of an auditor issuing unqualified opinion on materiality of mis-stated financial statements. It is difficult to measure audit risk objectively and accurately. No single proxy for audit risk is considered adequate. However, it appears to be related to client's business risk (Simunics and Steins 1987). The business risk is proxied by two operational variables namely, client firm's size (SIZE) measured by total assets and leverage (LEVR) both prior to and after auditor changes. An increase in client size entails a wider geographical dispersion and scope; therefore clients need the services of larger audit firms that have competitive advantage over the smaller firms. Higher leverage client firms would pose higher levels of financial risk, therefore, it is likely that firms with higher risk will engage the services of larger audit firms that have greater expertise to analyse the situation resulting in greater credibility to the reports.

Market Model

The standard Market Model (Sharpe 1964) is used to estimate the expected returns and average excess returns. The model expressed as follows:

$$R_{it} = \alpha_i + \beta_i Rm_t + \upsilon_{it} \qquad (4)$$

where

$$R_{it} = \frac{P_{it}-P_{it-1} + D_t}{P_{t-1}} \times 100$$

$$R_{mt} = \frac{C - C_{t-1}}{C_{t-1}} \times 100$$

R_{it} : the rate of return of the ith stock on the period t

P_{it} : stock price i at period t

P_{it-1} : stock price i at period t-1

D_{it} : Cash dividend paid to the shareholders

α : the constant average return while market yields zero returns

β : beta estimate

υ_{it} : Residual or random noise term assumed to have property of $\upsilon_{it} \sim (\sigma,\sigma^2)$

R_{mt} : the rate of returns on the market portfolio (Composite Index) for period t C_t and C_{t-1} are the values of Composite Index at period t and t-1.

To estimate the parameters of the market model, 60 monthly observations from outside the analysis period (event window) are used to avoid any misestimates of the market return around the event dates. Market Model parameters are adjusted for non-synchronous trading problem caused by thin trading using Scholes and Williams (1977) two lag and two leads model.

Abnormal Returns Measures

Abnormal returns or residual returns are prediction errors. The abnormal returns for a given share price at any time period is the difference between the actual returns and the expected returns.

$$\upsilon_{it} = R_{it} - (\alpha + \beta Rm_t) \qquad (5)$$

The average excess returns are:

$$AR_{it} = 1/N \sum U_{it}$$

N : number of sample companies across the sub-sample

AR_{it} : average abnormal returns for companies at period t

If $AR_t > 0$ and statistically significant, it indicates that the market on average reacts positively to the event and thus increases the wealth of the shareholders. To observe the cumulative effect, cumulative abnormal returns (CARs) were calculated by summing up the AR_t over various time periods of interest:

$$CAR = \sum_{-K}^{+K} AR_t \qquad (6)$$

where

$CAR_{K, L}$ = is the cumulative abnormal returns for cut-off point over the window period from K to L.

-K,...+K refer to event window surrounding auditor changes.

Statistical Tests

Individual Coefficient Estimates

To measure the relationship between the exogenous variables, X, and dichotomous response variable, individual estimate is tested. Thus this test statistics is defined as

$$t-_k = B_k/S_k$$

Where the S_k is the standard error of the coefficient and B_k is the coefficient of the individual variable in the model.

Goodness of Fit Test

In normal regression analysis, F statistics can be used to test the joint hypothesis that all coefficients except intercept is zero. A corresponding test in logistic regression that serves the same purpose is based on Likelihood Ratio. The functional form of Likelihood Ratio is as follows:

$$\lambda_{LR} = -2\left[\ln \ell(\hat{\beta}) - \ln \ell(\hat{\beta}^*)\right]$$

where

$\ln \ell(\hat{\beta})$ is the value of the likelihood function for full (unrestricted) model and $\ell(\hat{\beta}^*)$ is the maximum value of the likelihood function if all coefficients except the intercept (restricted), are zero.

The method produces a statistics that follows approximately a Chi-square distribution with k-1 (k being the number of independent variables) degree of freedom if the joint null hypothesis is true. If the alternative hypothesis were to be

accepted, λ_{LR} becomes larger. If null hypothesis is to be accepted, $\lambda_{LR} < \chi^2$

RESULTS

Differences in Characteristics of Switch and Non-switch Firms

Table 1 presents the test results on the characteristics of client firms that switched their auditors and those of control firms that did not switch their auditors over a period of five years (2 years proceeding and 2 years after the auditor switch). These are based on mean differences respectively for (a) size, (b) turnover growth, (c) returns on assets, (d) leverage of the firms, (e) acquisition of fixed asset to total asset and finally the liquidity position of the two groups. A simple parametric test was used to observe the differences in the firm's characteristics associated with switch and non-switch groups. The results suggest that both switch and non-switch groups are distinctly different from one another in a number of dimensions. For instance, the turnover growth of firms that switched their auditors is significantly larger than those that did not switch auditors over the same period. The mean values of the turnover growth over the 5-year (two years prior and two after the auditor) period for the two groups were recorded as 130 percent and 70 percent, respectively. Meanwhile, the average return on assets (ROA) of the two groups over the same period is 3.4 percent for firms that switched their auditors and 5.1 percent for non-switch firms, though not statistically significant (t-value = −1.4). The observed differences on average acquisition of fixed assets to total assets registered a marginally higher rate for firms that switched auditors, for example, the average acquisition of the two groups was 7.5 percent and 6.1 percent respectively. The differences on asset sizes, leverage and liquidity of the two groups were small and not significant at the conventional level.

Determinants of Auditor Switch

To provide an objective framework, the variables for the determinants of auditor switch were derived from agency theory and others in the accounting literature. These are turnover growth (TGROWTHB) prior to auditor switch and after (TGROWTHA), average acquisition of fixed assets to total assets (ACQ), return on assets (ROA), average earning per share (EPS), change in audit fees (AUDF), management change (MGTCHG), audit report both prior (RPORTB) and after (PRORTB) the switch, firms leverage (Leverage), liquidity of the firms (LIQ) and audit type (AUTYPE)

Table 2 presents the results of the logistic regression model explaining the determinants of auditor switch firms. Initially 13 variables were analysed using maximum likelihood estimation procedure in stepwise logistic regression based on centred data. In initial step, stepwise regression identified GROWTHB, GROWTHA, MGTCHG AND ROA as significant variables. However, in the final step, the procedure selected only three variables (GROWTHB, GROWTHA, and MGTCHG) which met the 0.10 and 0.05 levels of significance for inclusion in the final model. The chi-square value for overall model was 25 with 3 degrees of freedom (significant at the .0001 level). Based on the findings in Table 2, the joint null hypothesis (that is, all the slope coefficients are simultaneously zero) cannot be accepted. The results support the notion that auditor switch decisions of listed firms in Malaysia are mainly determined by management change, and turnover growth both prior and after auditor change. The coefficient of the explanatory

TABLE 1
Simple parametric test for mean difference between switch and non-switch sample

Characteristic	Mean Switch	Mean Non-switch	t-value
Size (RM)	617890 (000)	558508 (000)	0.28
Sale growth	1.30	.70	1.736*
ROA	.034	.051	-1.451
Leverage	0.4325	0.4221	0.309
Liquidity	1.82	1.76	.259
AvAcq	.075	.06	.78

* Marginally significant at 10 percent level

variables are consistent with theory and findings as reported in Burton and Robert (1967), Linbeck and Rogow (1978) and Takiah *et al.* (1993). Burton and Robert document a significant association between change in management and replacement of new auditor. Consistent with Takiah *et al.* (1993) in the Malaysian context, this study could not establish any significant relationship between qualified opinion and subsequent auditor switch. It also confirms the conclusion drawn by Takiah *et al.* (1993) that having profit or losses over the years does not necessarily influence the switch of auditor in Malaysia.

It must be noted that though qualified audit opinion was most strongly associated with auditor change in the US (Chow and Rice 1982), Australia (Craswell 1988) and Hong Kong (Gul *et al.* 1991), it is not a significant determinant of auditor change in Malaysia. Similarly, the findings could not establish any significant relationship between audit fee and change in audit firm, inconsistent with documented findings (Eichenseher and Shields 1983); Bedingfield and Loeb 1974).

Changes in Firm's Characteristics and Choice of Audit Firms

Table 3 summarises the descriptive statistics for firms that switch to Tier 1 audit firms and those that switch to Tier 2 audit firms. The results are for mean differences of the following variables: turnover growth, asset size, growth of asset, leverage, returns on assets, financing activities and average acquisition to total assets. There are some noticeable differences. The average turnover growth of firms that switched to Tier 1 auditor are comparatively higher than firms that switched to Tier 2 auditor recording 54 percent and 45 percent respectively, 2 years preceding the auditor change.

Meanwhile, the average asset growth before the auditor change for firms that switched to Tier 1 audit firms is higher than firms that switched to Tier 2 audit firms, recording at 50 percent and 42 percent respectively. And the

TABLE 2
Regression results on determinants of auditor switch

Vars	p-value	Model specification	Percent	
MGTCHG	.05**	Ch-Square	25.00**	(p=.000)
TGROWTHB	.07*	Classification rate	64.00	
TGROWTHA	.012**	Prediction Rate		
		Switch Group	72.00	
		Non-Switch Group	51.43	

** significant at 5 percent level. * significant at 10 percent level.

TABLE 3
Test of differences between switch to tier 1 and switch to tier 2 firms

Characteristics	Mean	Mean	t-value
Turnover growth before	.5455	.45	.27
Size before ('000)	624624	144632	2.52*
Size after	1108536	316577	2.35*
Asset growth before	.506	.418	.3117
Asset growth after	.597	.58	.049
Leverage before	.4436	.3496	1.7**
Leverage after	.4436	.37	1.6
ROA before	.041	.05	.455
Financing before	.452	.489	-.529
Financing after	.421	.40081	.393
Acquisition before	.07938	.0539	1.565

* 5 percent significant level
**10 percent significant level

size of the asset for client firms that switch to Tier 1 are significantly larger than firms that switched to Tier 2 audit firms. The average acquisition before the auditor switch is recorded at 7.9 percent for firms switching to Tier 1 audit firms and 5.39 percent for firms that switched to Tier 2 audit firms. Furthermore, firms that switched to Tier 1 auditor exhibited higher leverage than those that switched to Tier 2 audit firms, significant at 10 percent over. The return on assets for firms switching to Tier 2 audit firms is higher, registering 5 percent over those switching to Tier 1 audit firms recording 4.1 percent, but not statistically significant at the conventional level. This finding suggests some significant differences in the characteristics of firms that switched to Tier1 and Tier 2 auditor firms respectively.

Table 4 summarises the results of changes in firm's characteristics and choice of auditors using logistic regression. Initially asset size, asset growth, turnover growth, return on assets, change in operating cash flow, leverage, change in financing activities and changes in acquisition were included in the analysis.

The stepwise procedure retained 4 variables (LEVA, CHFA, GRTH, CHACQ which are statistical signal) in the analysis. The results indicate that the choice of auditor exhibits a significant positive association with changes in financing activities, leverage after the auditor changes, and growth in assets before the switch, while a significant negative association is reported for change in acquisition. Though asset size for client firms that switched to Tier 1 significantly differs from client firms that switched to Tier 2 audit firm, the regression analysis fails to exhibit a significant association between asset size and audit choice. It is only significant at 21 percent level. The coefficients of the variables are consistent with theory except for turnover growth. The negative coefficient for change in average acquisition demonstrates that firms that switch to Tier 1 auditor exhibit a higher level of average acquisition to total asset during the pre auditor change period compared to the post period, consistent with the summary findings in Table 2.

The significant positive coefficient for leverage after choice of auditor indicates that higher leverage firms pose a higher level of financial risk and increases in agency cost of debt. To allow for this possibility, client firms would engage the services of high quality (Tier 1) audit firms, who have greater expertise to analyse the situation and give greater credibility to the financial reporting than a small audit firm would. Meanwhile, evidence of a positive relationship between changes in financing activities and choice of Tier 1 audit firms showed that firms switching to Tier 1 audit firms exhibit a higher level of post-auditor change financing to increase the marketability of new securities (both debt and equity). Furthermore, the documentation of positive relationship between firms' asset growth and choice of auditor suggest that rapid growth entails substantial increases in traction volume and accounting complexity, and decentralisation of financial controlling system thus requiring the services of larger audit firms presumably having the expertise to provide specialised services. The large audit firms do have a cost competitive advantage over smaller audit firms.

The summary results show that the average acquisition for firms that switch to Tier 1 auditors are relatively higher than firms that switched to Tier 2 auditors, although the average acquisition tends to decline for former group in the post-switch period. Thus the joint-hypothesis (all the slope coefficients are simultaneously zero) can

TABLE 4
Result of the logistic regression analysis

Variables	p-value	Model specification	Percent
CHACQUI	.008	Chi-Square	17.46*
CHFA	.03	Classification Rate:	
GRTHB	.024	Overall	81.2
LEVA	.048	Switch to Tier1	95.8
TURNGB	.288	Switch to Tier2	44.4
SIZEB	.221		

* significant at 5 percent level

be rejected with a chi-square value of 17.46 with a 6 degree freedom (p=. 0069). The model correctly classifies for 81.2 percent. Earlier studies on auditor choice have documented inconsistent results on the association between clients' characteristics and direction of auditor change. The findings of this study are more consistent with the hypothesis that firms that are expected to raise debt financing demand the services of high quality auditors to monitor management activities that are detrimental to the bondholders. The leverage was hypothesised to be positively associated with the choice of Tier 1 by Palmrose (1984), Eichenseher and Shield (1986). The findings of a positive coefficient for the change in financing activities after the auditor change indicates that firms which are expecting to issue securities in the near future demand the services of Tier 1 auditors to attest credibility to the financial reporting to market participants. This is consistent with the findings of Carpenter and Strawser (1971). They asserted that firms may change auditors especially from a Tier 2 to Tier 1 auditor to increase the marketability of the new securities (debt and equity issue). Consistent with the study of Johnson and Lys (1990), this study also documents asset growth before and after auditor change, change in financing activities and change in acquisition as the major determinants of choice of auditors. However, contrary to Johnson and Lys (1990), this study documented a negative association between change in acquisition and choice of auditor. The finding of negative coefficient indicates that pre-switch acquisition for clients firms that switch to Tier 1 audit firms is comparatively higher than clients firms that change to Tier 2 audit firms.

The Wealth Effect of Auditor Switch Decision

Table-5 summarises the average abnormal returns (ARs) and cumulative abnormal returns (CARs) around the announcement day over a window of 81 days. Average daily excess returns and cumulative abnormal returns were examined for statistical significance using standard test procedure.[1] Findings indicate that auditor change on average are not associated with significant price adjustments in Malaysia. Average abnormal returns on the day of announcement itself and the 3-day (–1 to +1) excess returns are 0.092 percent and 0.0461 percent respectively. These are not statistically significant. The cumulative abnormal returns over the days (–60 to –8) and (–8 to –1) are 0.018 and 0.62 percent respectively. Post-announcement CAR over the days (1 to 8) and (8 to 20) are 0.43 percent and 0.25 percent respectively. However, none are statistically significant at the conventional level.

The client firms that switched to higher (lower) quality audit firms experienced positive excess returns at day zero of 0.12 percent and 0.69 percent respectively. The 3-day (-1 to +1) excess returns for firms that switched to lower quality audit firms recorded -0.29 percent. However these are not significant at the conventional level. The pre-announcement CAR for client firms that switched to higher quality audit firms over the days (-8 to –1) recorded a net gain of 2.25 percent with a t-value of 1.84. However, the CAR at post announcement period over the days (1 to 8) and (8 to 20) declined, recording cumulative abnormal returns of percent and –2.00 percent respectively. But none are statistically significant.

Market on average reacted negatively to client firms that switched to a lower quality auditor. The CAR over the day (-60 to -8) recorded a cumulative 0.12 percent, which is not statistically significant. However, pre-announcement CAR over the days (-8 to –1) recorded a net loss of 4.56 percent, which is marginally significant at 10 percent level. CAR in post-announcement period over the days (1 to 7) and (8 to 20) recorded a net gain of 1.68 percent and 0.13 percent respectively. However, these are not statistically significant at the conventional level.

The revaluation of auditor change type within classes is more ambiguous and there is no clear-cut direction of price changes. However, overall it appears to suggest a common stock price decline surrounding the auditor change. The average abnormal returns on the day of announcement and three days (-1 through +1) excess returns for client firms that switched from higher prestige to higher prestige audit firms

1. t-AR = ARt-0/SE(AR), t-CAR=CAR_{KL}/SE (CAR_{KL}), where SE(AR) = standard error of AR and SE(CAR) = standard error of CAR and (K.L) = cut-off point from K to L during window period

TABLE 5
Market reaction to auditor switch announcements

Trading day	Full sample AR	Tier 2-Tier 1 AR	Teir1-Tier 2 AR	Tier 1-Tier 1 AR	Tier 2-Teir 2 AR
-10	0.00146	-0.00296	-0.00294	-0.00275	0.00392
-9	-0.00147	-0.00053	-0.00812	-0.00126	-0.00344
-8	0.00019	0.00311	-0.014**	-0.00034	-0.01363
-7	-0.00392	-0.00247	-0.01710	-0.00182	0.00713
-6	0.00210	0.00781	-0.00365	0.00015	0.01354
-5	0.0054*	0.00686	0.01126	-0.00173	-0.00436
-4	-0.00073	-0.00045	-0.019**	-0.00380	0.02316
-3	-0.00019	0.01151	-0.02414	0.00186	-0.00629
-2	0.00390	-0.00093	0.021**	0.00034	-0.00480
-1	-0.00065	-0.00415	0.00005	-0.00291	0.00132
0	0.00228	0.00116	0.00690	-0.00161	0.00014
1	0.00095	0.00016	-0.00431	0.00111	-0.00295
2	-0.00042	0.00022	-0.00600	0.00180	-0.01657
3	-0.00087	-0.00484	0.00078	0.00133	0.0128*
4	-0.00213	-0.00326	0.00794	-0.00597	-0.00999
5	0.00340	0.00474	-0.00509	0.00548	-0.02116
6	0.00503	0.00514	0.022**	0.00403	0.01335
7	-0.00119	-0.00329	0.00202	-0.00001	0.00385
8	-0.00040	-0.00611	-0.00072	0.00820*	-0.00621
9	-0.00302	-0.00306	-0.00536	-0.00556	0.00227
10	0.00038	-0.00347	0.00575	0.00371	0.00479
CAR					
(-60 to -8)	0.00018	.0595*	0.00117	-0.031	-0.0358
(-8 to -1)	0.00618	.0225*	-0.04568*	-0.0098	0.00462
(1 to 7)	0.0043	0.00002	0.0168	0.0078	-0.02062
(8 to 20)	0.0025	-0.0288	0.00132	0.0168	-0.04628

* significant at 10 percent level
** significant at 5 percent level

recorded at -0.161 percent and -.34 percent respectively. These are small and insignificant. The CAR over the days (-60 to –8) and (-8 to –1) recorded a loss of 3.1 percent and .98 percent respectively, which are not statistically significant. The revaluation effect of auditor change from Tier 2 to Tier 2 reported a weak negative market reaction. Though significant positive and negative abnormal returns were reported, none of the day zero and three-day (-1 to+1) excess returns were significant, recording at 0.014 percent and -0.034 percent respectively. The CAR over the day (-60 to –8) and (-8 to –1) registered a cumulative return of –3.5 percent and 0.46 percent respectively for the Tier 2 to Tier 2 switch sample. CAR during the post announcement recorded over the (1 to 8) and (8 to 20) were –2.06 percent and –2.5 percent respectively. However these findings are not statistically significant.

To substantiate existing literature, further analysis was done to determine whether firms belonging to different levels of financial condition, and switched audit firms resulted in different market reaction. The financially healthy firm that switched audit firms resulted in a positive market reaction while financially unhealthy firms that switched audit firms resulted in a significant negative reaction surrounding the auditor changes. For financially healthy firms, the ARs for the day of announcement and 3-day (-1 to +1) excess recorded at -0.5 percent and -0.03percent respectively. Pre-announcement CAR over the days (-60 to 8) and (-8 to –1) registered a net gain of 0.63 percent and 1.53 percent respectively, but these are statistically insignificant. Post-announcement CAR over the days (1 to 8) and (8 to 20) were at 1.09 percent and –1.15 percent respectively. While CAR for financially unhealthy firms that switched auditors

over the (-60 to –8) and (-8 to –1) recorded a net loss of 15.8 percent and 1.4 percent respectively. These are not statistically significant at 10 percent level.

The revaluation effect of auditor change for client firms that received a clean opinion reported a weak positive market reaction surrounding the auditor change. The ARs for announcement day and 3 days (-1 to +1) were at 0.16 percent and .009 percent respectively. The pre-switch CAR over the days (-60 to –8) and (-8 to 1) are recorded as net gains of 1.5 percent and 0.25 percent respectively. But none are statistically significant. The post-switch CAR over the interval (1 to 20) reported a net gain of 0.11 percent. This is apparently consistent with Teoh's (1992) contention that firms will experience a positive reaction after a clean opinion than qualified opinion, because high value retention is more common after clean than qualified opinion. But none are statistically significant.

Judging from the market reaction to auditor changes, there is weak evidence that the market indeed perceives auditor change as a signal. Thus, auditor switch in this emerging capital market conveys information value associated with auditor change, but due to unknown reasons, are not producing the significant effect normally reported in some developed markets. The demonstration of weak positive market reaction reflects that an increase in firm value appears to occur, and it is not a negative market reaction documented in earlier literature from the developed markets. Observing significant cumulative abnormal returns for client firms that switch to Tier 1 audit firms prior to auditor change reflects a confirmation of quality shift also observed in other markets.

CONCLUSION

The issue of auditor has been of interest to academics, researchers and industry experts due to its strategic implication for firm value, credibility of financial reporting and monitoring costs to curtail agency costs. Despite the concerns shown in developed economies, little attempt appears to have been made in Malaysia to examine such an important issue in this fast growing economy. Thus, this paper is a modest first attempt that ascertains the determinants of auditor switch decision and its effect on share valuation of firms listed on the Kuala Lumpur Stock Exchange. Logistic regression and event study methods were used to analyse the data.

In general, findings appear to suggest that auditor switch in Malaysia is determined by changes in management and higher turnover growth. Changes in firms' characteristics such as asset growth prior to auditor switch, changes in average acquisition of fixed assets to total assets, firm's leverage, and changes in financing activities were found to be significantly associated with choice of quality differentiated audit firms.

Auditor change in general is not associated with any significant price adjustment coinciding with the announcement of auditor switch, despite a positive trend in upvaluation of such firms. However, once portfolios were formed based on the auditor change types, different results emerged. Firms that switched to higher quality audit firms experienced positive (though weak) market response while negative reaction is observed for firms that switched to lower quality audit firms. The revaluation effect from shifts within classes exhibits weak negative abnormal returns. An interesting difference in the findings of this study and those of similar studies reported in developed economies is that there is a weak positive abnormal market reaction anomalous to those reported in the developed economies. This could be due to the positive development at firm's level and significant upsurge in the Malaysian economy, which had registered average GDP growth of 8-9 percent over the test period. Alternatively, there are some still unknown missing variables confounding the results.

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