Agency theory and managerial ownership: evidence from Malaysia

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Abstract

Purpose – The purpose of this paper is to investigate the effect of managerial ownership in relation to agency theory in the Malaysian business environment. In addition to examining the total managerial shareholdings, this study also investigates the association between direct and indirect managerial shareholdings with agency costs.

Design/methodology/approach – The data for the study is obtained from two sources, namely primary (questionnaire) and secondary (annual reports) data. The sample companies are 235 companies listed on Bursa Malaysia for the financial year ended 2006. Multiple regression analysis is used to estimate the relationship between the variables.

Findings – The results of the study indicate that managerial ownership in various segments has an inverse relationship with total monitoring costs as predicted in agency theory. This finding is consistent with earlier studies in western countries and supports the convergence of interest hypothesis.

Originality/value – This study gives a unique contribution to corporate governance studies relating to the effect of ownership structure in relation to agency theory in Malaysian companies, one of the countries in Asia. Previous studies claimed that it is unknown whether the agency theory findings in western countries have equal impact in Asian organizations. Previous literature also indicates that there is a possibility that given the cultural differences, the typical nature of agents in agency theory may not be the case with regard to non-western countries. Thus, this study provides evidence that support prior research findings in western countries relating to the effect of managerial ownership on the agency relationship which is reflected in its agency costs.

Keywords Corporate ownership, Shareholders, Malaysia

Paper type Research paper

Introduction

Corporate governance is a term often used to explain the processes and structures used to direct and manage the business activities of a company in order to enhance its shareholders' wealth. Corporate governance has also attracted public interest in the recent past because of its apparent important to companies and society. This is evidenced in the 1997/1998 Asian financial crises and more recent global financial crises (Rachagan, 2010). And, this governance issues once again come into attention after the recent accounting irregularities in the USA (Ghosh, 2007).

Following the major corporate collapse and the effect of the crisis, efforts to enhance corporate governance have been undertaken by countries around the world via the establishment of corporate governance guidelines. Insufficient and malfunctioning corporate governance mechanisms are said to be the major factors responsible

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for causing and accelerating the deteriorating situations of the crisis (Suto, 2003; Sam, 2007). Various internal and external monitoring mechanisms have been suggested, and efforts are undertaken to improve these mechanisms. These mechanisms are claimed to be able to align the interest of agents to be more closely with that of the principals (Sam, 2007).

Maijoor (2000) claims that corporate governance issues such as monitoring mechanisms are very much related to agency theory. The theory postulates that the separation of ownership and management functions lead to principal-agent conflicts as the managers may pursue their own interest at the expense of the principals (Ugurlu, 2000; Jensen and Meckling, 1976; Shleifer and Vishny, 1986). This divergence of interest between managers and shareholders may create information asymmetry and result in agency costs (Farrer and Ramsay, 1998). Several mechanisms have been suggested to be used to reduce these costs. Among others is the convergence of interest model suggested by Jensen and Meckling (1976). This model posits that as the agency costs arise as a result of the separation of ownership and control, this cost would be zero if those who owned the company also managed the company (Farrer and Ramsay, 1998). This can be done by encouraging the managers to own the company's shares, as the interest of the internal and external shareholders are aligned.

Separation of ownership and control has long been recognized to potentially have an adverse effect on the firm value. It is believed that the incentive to pursue personal benefits increases when the manager owns a smaller portion of the firm's shares (Mat Nor and Sulong, 2007), and the incentive to invest in sub-optimal investments and misappropriation of assets declines as a manager's share ownership increases because his/her share of a firm's profit increases with ownership while benefits from perquisite consumptions are constant (Ang *et al.*, 2000; Fleming *et al.*, 2005). It is claimed that when managers own the shares of the firm, they have the incentive to increase the value of the firm rather than shrink it, as they have vested interest in the company (Jensen and Meckling, 1976). Furthermore, as the owners are actively engaged in day-to-day activities of the company (Niemi, 2005), there will be less information asymmetry, less conflicts and less hierarchical organization structure. This less complex organization structure reduces the need for assurance and monitoring and thus requires less monitoring and agency costs.

Agency theory is also criticised for its ignorance of the existence of social relationship and assumes social life is a series of contracts (Johnson and Droege, 2004). It is unknown whether the agency theory findings in western countries have equal impact in Asian organizations (Ekanayake, 2004; Johnson and Droege, 2004). A limited prior study suggests that agency effects are lower in Asia (Sharp and Salter, 1997). It is also claimed that there is a limited empirical research that directly tests agency theory in different culture context (Ekanayake, 2004). This study aims to provide evidence that supports or rejects prior research findings in western countries relating to the effect of managerial ownership on the agency costs in different agency setting.

Hence, this study attempts to investigate the agency relationship in Malaysian organizations, one of the countries in Asia. Malaysia is a developing country, where it is likely that its corporate governance practices are different from those practised in developed countries such as the USA and Australia. In addition, prior studies also claim that very little research has been done in less developed countries where their corporate governance mechanisms are still evolving (Carcello *et al.*, 2002; Yatim *et al.*, 2006).

Besides, being a developing country with an emerging market, Malaysia is chosen in this study because of its unique concentrated business environment. It is claimed that owner managed firms are common among Malaysian companies (Mat Nor and Sulong, 2007). Unlike companies with dispersed shareholdings, these companies are believed to have reduced agency problem and agency costs due to a better match of control and cash flow rights of the shareholders (Abdul Rahman and Mohamed Ali, 2006).

In Malaysia, corporate governance reforms have also been carried out because it also has its share of corporate misconducts (Wan Hussin and Ibrahim, 2003; Sidhu, 2006). In the aftermath of the crisis and accounting irregularities, the Malaysian government has conducted extensive reforms in legal, regulatory and reporting framework relating to shareholders rights, management oversights and other monitoring mechanisms (Koh, 1999; Suto, 2003; Liew, 2007). Among others, the reforms include the amendments to the Malaysian stock exchange's listing requirements and the setting up of the high-level finance committee of corporate governance to establish a framework for corporate governance and set best practices to enhance the standards of corporate governance. The committee released the Malaysian Code on Corporate Governance (the code) (FCCG, 2001) in March 2000, and was fully implemented in 2001. The code introduces the principles and best practices of corporate governance to inculcate good corporate governance among Malaysian public listed companies (PLCs). Among others the code also highlights directorship, internal and external auditing as the important monitoring mechanisms. Thus, the total of these costs, as recommended by the Malaysian Code of Corporate Governance (FCCG, 2001) is used as a measurement for agency costs in this study.

Specifically, this study focuses on the effect of managerial ownership on the agency costs of Malaysian PLCs. This study investigates various ownership shareholdings, which include direct, indirect and total managerial shareholdings and their effect on monitoring costs. The results indicate that there are negative relationships between all these managerial ownership variables and monitoring costs. These results are consistent with prior studies in western countries. This is supported by the independent *t*-test, which indicates that those companies having managerial ownership in their organizations have significantly lower monitoring costs compared to those without such holdings. Another *t*-test for those companies with low and high managerial ownership also gives a similar result. The analysis relating to the board of directors' shareholdings and monitoring costs also show the same pattern of results.

The remainder of the paper is organised as follows. The next section discusses the relevant literature on the role played by managerial ownership in agency setting and how it affects the agency costs, followed by research methodology and the results. The paper ends with the conclusion of the research.

Literature review

A lot of previous studies examined the relationship between the use of control mechanisms and their effect on the agency costs. The studies suggest various ways to overcome the agency problem and reduce the costs involved. Among others, it is claimed that managerial shareholdings can reduce and mitigate agency costs (Jensen and Meckling, 1976; Agrawal and Knoeber, 1996; Ang *et al.*, 2000; Chow, 1982; Fleming *et al.*, 2005; O'Sullivan, 2000). They argue that the agency costs of equity arise from the direct expropriation of funds by the managers, consumption of excessive perquisites, shirking, sub-optimal investment and entrenching activities. Thus, earlier studies suggest that managers are encouraged to own the organisations' share to motivate management monitoring (Agrawal and Knoeber, 1996; Fleming *et al.*, 2005). This is because the higher the portion of the shares, the more responsible is the manager to increase the value of the companies. According to original agency theory by Jensen and Meckling (1976), and Fleming *et al.* (2005), equity agency cost is zero when there is a 100 per cent owned manager organisation, and there is a positive relationship between equity agency costs and the separation of ownership and control. As owner manager equity ownership falls below 100 per cent, the equity ownership becomes relatively dispersed. In this circumstance, the manager has a greater incentive for shrinking or the consumption of excessive perquisites. This is due to the fact that although the firm's value falls, the managers only bear a portion of the expense related to their ownership stake (Farrer and Ramsay, 1998). In other words, a lower managerial equity holding is associated with lower incentive and effort exert by the managers in their responsibilities to seek profitable investments. Chow (1982) suggests that when managers own a smaller equity stake in their firms, they have an increased incentive to falsify financial disclosures, since such disclosures are likely to be utilised by shareholders in setting managers' remuneration. It is also suggested that managerial shareholdings help align the interests of shareholders and managers in its convergence of interest hypothesis (Jensen, 1993).

It is claimed that the higher the ownership of the firm by the management, the less the conflicts among the stakeholders, the less the agency problem and cost associated with it (Friend and Lang, 1986; Jensen and Meckling, 1976). This is because the insiders have incentives to protect shareholders interests and need less supervision by the board, since board activity is a costly monitoring alternative (Vafeas, 1999). It is also said that increased agent ownership reduces the need for monitoring as the incentive alignment is enhanced. The convergence of interest model suggested by Jensen and Meckling (1976) claim that an increase in the proportion of firm's equity owned by insiders is expected to increase firm value as the interest of inside and external shareholders are realigned, and consequently there is a reduced need for intensive audit. O'Sullivan (2000) finds that significant managerial ownership results in a reduced need for intensive auditing which may be due to the merging functions of ownership and management, and consequently minimize the monitoring motivation for audit. The auditors are also said to be less inclined to undertake additional testing when managers are also significant equity holders, since owner managers are less likely to deliberately mislead themselves (O'Sullivan, 2000). Publicly traded firms in which top management has a larger ownership stake experience corporate crime (proxy for agency cost) less frequently (Alexander and Cohen, 1999). Managers also will have more powerful incentives to make value maximising decisions about capital structure, as their stock ownership is high (Berger *et al.*, 1997). Besides, an increased incentive to maximise the firm value, holding common stocks also motivates the managers for its underlying voting rights, such as an increase in their influence on the board of directors and hence on the firm's general policy (DeAngelo and DeAngelo, 1985). However, there are also studies, which suggest contradictory and mixed findings such as Singh and Davidson (2003), who conclude that managerial ownership does not serve as a significant deterrent to excessive discretionary expenses which is used as a proxy for agency cost in their study.

Local studies on the association between managerial ownership and agency costs are inconclusive. A study using Malaysian data by Abdullah (2006) suggest that ownership by non-executive directors effectively increases their incentives to monitor management in ensuring that their wealth in the firms is intact. He finds that non-executives' interests are associated negatively with financial distress. However, Johari *et al.* (2008) in their study of earning management among Malaysian listed companies finds that managerial ownership is positively related to earning management practices. Their result suggests that when managerial ownership is significant, it may induce managers to manage earnings, that is, managers have more opportunities to make decisions that benefit themselves at the expense of other stakeholders.

The association between managerial ownership and its effect on the firm has also been studied internationally. Florackis (2008) in his study of the UK companies reveals that managerial ownership is strongly associated with agency costs. His finding suggests that managerial ownership encourages better used of assets in generating the revenue of the companies. This notion is supported by McKnight and Weir (2009), who find that increasing board ownership helps to reduce agency costs of the UK companies. Another study by Yang *et al.* (2008), which uses Taiwanese listed firms, suggests that equity owned by top management should be encouraged to reduce agency costs and enhance the information content of earnings. However, a study by Pergola and Joseph (2011) suggest that given sufficient equity ownership board members may entrench where the decision that they make may not reflect and protect the interest of other shareholders.

There are a number of literatures devoted to whether the mechanisms used to reduce agency problems and its costs affect the firm value. It is assumed that if the agency costs are reduced it will increase the firm value. Morck *et al.* (1988), Bhabra (2007), Benson and Davidson (2009) and Jelinek and Stuerke (2009) find that managerial ownership is nonlinearly related to agency costs and firm value. Bhabra (2007)'s study of New Zealand companies finds curvilinear relationship of managerial ownership and firm value and Benson and Davidson (2009) find a significant inverted u-shaped relationship between managerial ownership and firm value. Morck *et al.* (1988) find a significant positive relationship between firm value and ownership when board ownership is between 0 and 5 per cent and a significant negative relationship when board ownership is in the 5-25 per cent range.

In terms of managerial ownership structure's association with another monitoring mechanism, that is auditing, it is found that the lower the managerial share ownership in a company, the greater the probability of the company being audited (Tauringana and Clarke, 2000). Another study claims that agency theory suggests that in the absence of regulation, the propensity of firms' demand for independent audit is a function of the extent of the divorce between ownership and control (Chan *et al.*, 1993). This is supported by Fan and Wong (2005), who claim that external auditors play a monitoring and bonding role in order to mitigate the agency conflict between the controlling owners and the outside investors.

It is also believed that in a manager-owned organization, managers may be excessively risk averse (Fama and Jensen, 1983a), which may lead to their under-investment in risky projects, or induce managers to pursue "safe" strategies (Loh and Venkatraman, 1993). Francis and Wilson (1988) state that where the agency setting has low conflict among contracting parties (such as a manager owned organization), lower quality and less costly minimum compliance audits might be demanded from accounting firms with a lower reputation for independence and competence. However, in the absence of manager ownership, owners tend to discount the value of their initial investment and lower the management compensation. Managers then have an incentive to choose a higher quality audit as a means of increasing their compensation (Jensen and Meckling, 1976). This is supported by Firth and Smith (1992), who find that the lower the percentage share of ownership that the management have in the company, the greater the demand for Big Eight auditor (high-quality auditor). Consistently, diffusion of ownership increases the cost and effort to affect management policy and to force a change in management. Francis and Wilson (1988) suggest that higher quality audit can be considered as part of the control system that mitigates the relative inability of diffused ownership to directly control management action.

Research methodology

Data collection and sample selection

Data for the study was collected using primary and secondary sources. Primary data was collected using cross-sectional surveys, which were sent to Malaysian PLCs. The population of the study includes all companies listed on the main and second board of Bursa Malaysia. However, the companies classified under the finance sector were excluded in this study because of their unique features and business activities, as well as differences in compliance and regulatory requirements (Yatim *et al.*, 2006; Mat Nor and Sulong, 2007). Questionnaires were sent to all 867 companies in the population as at 31 December 2006.

This questionnaire solicits information about the organisation specifically for the financial year ended 2006. Once the questionnaires were returned, the annual reports of those companies, together with the completed questionnaires were scrutinized for further information to be used in the study. The secondary data was hand collected from the companies' annual reports, which were available at Bursa Malaysia's web site (www.bursamalaysia.com.my). The information gathered from the questionnaires was also tabulated in the worksheet and further matched and validated with the information obtained from the annual report. This will then address the reliability concern of our survey data as conducted by Anderson *et al.* (1993) in their study of Australian companies. Non-response bias was also conducted for the data collected from the questionnaires.

After considering the incomplete and inconsistent questionnaires, there were 235 usable samples for the study, which represents 27.10 per cent of the total population. The data were also inspected for outliers by means of standard regression diagnostics at three standard deviations (Hair *et al.*, 1998, p. 65). Normality check of the data was also carried out and some of the measures were transformed into logarithm to control for skewed nature of data. As multivariate regression is used to analyze the data in this study, assumptions of multicollinearity, hemoscedasticity and linearity are also tested.

Variable measurements and model specifications

The dependent variable in this study is the monitoring costs of the companies in Malaysian listed companies. Earlier studies use indirect measurement such as asset utilization ratio (Florackis, 2008; Singh and Davidson, 2003), ratio of selling and administration expenses to sales (Florackis, 2008; Singh and Davidson, 2003) and the ratio of operating expenses to sales (Ang *et al.*, 2000) as proxies for agency cost incurred by the firms in monitoring their firms. However, this study uses measurements that are directly related to these firms in monitoring the shareholders' wealth of their companies. Directorship and auditing (internal and external) are specified as monitoring mechanisms in the code (FCCG, 2001). Thus, the dependent variables in this study involve the costs of these monitoring mechanisms demanded by the organisation in Ringgit Malaysia (RM). However, as the executive directors are given the responsibilities to manage the companies (management), and the non-executive directors are said to monitor and control the opportunistic behaviour of the management (Jensen and Meckling, 1976; Haniffa and Hudaib, 2006), this study does not include executive directors' remuneration as monitoring costs. Hence, total monitoring (MONITOR) is measured by the sum of organisation investment in non-executive directors' remunerations, internal and external auditor costs.

The independent variable in this study is managerial ownership (MGROWN). Three measurements of managerial ownership are used. The main analysis defines managerial ownership as the total percentage of executive directors' shareholding. In order to get a clear picture of the ownership characteristics of Malaysian companies, this study also examines the effect of direct and indirect managerial shareholdings. The analysis was re-estimated by re-defining this variable into percentage of executive directors' direct and indirect shareholdings only. The controlled variables include in the study are size, complexity, debt structure, performance, risk, growth, listing status and industry.

The following model is used to analyze the relationship between the monitoring costs and managerial ownership:

$$
\begin{aligned}
\mathrm{MONITOR} = a_i - b_1\mathrm{MGROWN}_i + b_2\mathrm{RECINV} + b_3\mathrm{COMPLEX}_i + b_4\mathrm{SIZE}_i \\
+ b_5\mathrm{DEBTSTRC} + b_6\mathrm{RISK}_i + b_7\mathrm{ROA}_i + b_8\mathrm{GROWTH}_i \\
+ b_9\mathrm{LISTSTAT}_i + b_{10}\mathrm{CONSTRASE}_i + b_{11}\mathrm{INDPROP}_i + \varepsilon_i
\end{aligned}
$$

where:

MONITOR	=	natural logarithm of total monitoring costs which are the sum of external and internal audit costs and non-executive directors remuneration.
α	=	intercept.
MGROWN	=	percentage of executive directors' shareholdings.
RECINV	=	inventories and receivables/total assets.
COMPLEX	=	natural logarithm of number of subsidiaries (including its head-office).
SIZE	=	natural logarithm of total assets.
DEBTSTRC	=	long-term debt/market value of the firm.
RISK	=	1, if have loss in current year; and 0, otherwise.
ROA	=	profit before interest and tax/total assets.
GROWTH	=	market value of the firm/total assets.
LISTSTAT	=	1, if listed in the main board; and 0, otherwise.
CONSTRASE	=	1, if the company is in consumer, trading or services sector; and 0, otherwise.

INDPROP = 1, if the company is in industrial, construction or property sector; and 0, otherwise.

ε_i = error term.

Results and discussions

Descriptive statistics

Table I presents the descriptive statistics for the variables used in the study. Panel A reports those results for continuous variables and Panel B presents those for dichotomous variables. Panel A shows that non-executive directors' remuneration constitutes the largest component of monitoring costs, followed by internal and external audit costs ranking second and third, respectively. The mean percentage of shareholdings by the managers is about 27 per cent and the ratio of long-term debt to the market value ranges from 0 to 93 per cent with the average close to 15 per cent. The descriptive statistics also show that the sample companies cover a wide range of companies, some moderately small and some relatively large, ranging from those with RM18 to RM65,092 millions of total assets. The complexity of the companies in terms of their operations range from simple, where there are companies with only their head office with no subsidiary, to more complex. The complexity of their asset compositions also reflect the same pattern, the ratio of inventories and receivables to total assets range

Variables	No. of samples	Mean	SD	Minimum	Maximum
Panel A: continuous variables					
INTCOST (RM)	235	280,896	971,753	0	10,000,000
EXTCOST (RM)	235	263,487	732,805	15,000	9,700,000
NEDREMM (RM)	235	302,249	435,358	0	4,045,000
MONITOR (RM)	235	846,632	1,799,424	56,900	21,010,000
MGROWN	235	0.272734	0.2323824	0.0000	0.8637
DEBTSTRC	235	0.1468	0.1584435	0.0000	0.9328
RECINV	235	0.308798	0.1945093	0.0019	0.8046
COMPLEX	235	19.74	34.801000	1.0000	445.00
SIZE (RM)	235	1,564,597,791	5,679,828,495	18,261,685	65,092,100,000
ROA	235	0.010054	0.2258620	−3.0172	0.2037
GROWTH	235	1.051495	0.7091715	0.3081	7.9680
Panel B: dichotomous variables		Yes	%	No	%
LISTSTAT	235	175	75	60	25
RISK	235	46	20	189	80
CONTRASE	235	78	33	157	67
INDPROP	235	126	54	109	46

Notes: Variable definitions: INTCOST = total internal audit cost in RM; EXTCOST = total external audit costs in RM; NEDREMM = total NED remunerations in RM; MONITOR = total monitoring costs in RM; MGROWN = executive directors' shareholdings (per cent); DEBTSTRC = long-term debt to market value of the firm; RECINV = ratio of inventories and receivables to total assets; COMPLEX = number of subsidiaries (including the head office); SIZE = total assets in RM; ROA = ROA; GROWTH = Tobin's Q; RISK = current year loss (dummy); LISTSTAT = board listing (dummy); CONSTRASE = companies in consumer, trading and service sectors (dummy); INDPROP = companies in industrial, constructions and property sectors (dummy)

Table I.
Descriptive statistics of variables

from 0.19 to 80 per cent and the average is about 31 per cent. On average, the respondent companies have the total assets of RM1,564 millions and 20 subsidiaries, while the average Tobins' Q is approximately 1.05. Panel B reports that about 75 per cent of the companies are listed on the main board of the Bursa Malaysia, and the balance on the second board.

The results of standard tests on skewness and kurtosis in Table II indicate that there is no problem with normality assumption[1]. A visual check for normality using histogram and normal probability plots is also carried out. All the histograms appear to be reasonably normally distributed and the normal distribution of the probability plot forms a straight line and the values appeared to fall approximately on this normality line. Thus, these variables can reasonably be considered as normally distributed. In summary, the model does not violate the basic ordinary least squares (OLS) assumptions and could be used to test the expected hypotheses.

Table III presents the correlation matrix for the dependent, independent and control variables. As expected, managerial ownership is negatively correlated with total monitoring costs. Also, larger and more complex companies are positively correlated to monitoring costs. Overall, the result indicates that there is no multicollinearity problem, as the correlations between the variables are below the threshold value of 0.8 (Gujarati, 2003, p. 359).

Main results. The primary result of the study is presented in Table IV. Column two of Table IV presents the multiple regression analysis used to test the main model. The adjusted R^2 for the model is 0.753 and the F-value of 66.022 is significant ($p < 0.000$). The value of the adjusted R^2 is very high, as well as statistically significant, which suggests that it is a good predictive model of monitoring costs for Malaysian data. It means more than 75 per cent of the variation in the monitoring costs can be explained by the model. This adjusted R^2 is also very much higher compared to a similar study

Variables	Mean	Minimum	Maximum	SD	Skewness	Kurtosis
MONITOR	12.9841	10.949	16.861	1.0005	0.864	0.922
MGROWN	0.2727	0.0000	0.8637	0.2324	0.210	−1.230
REVINV	0.3088	0.0019	0.8046	0.1945	0.329	−0.888
COMPLEX	2.4998	1.0000	445.00	0.9091	0.232	1.430
RISK	0.2000	0	1	0.3980	1.544	0.386
SIZE	19.744	16.720	24.899	1.4171	0.911	0.887
DEBTSTRC	0.1468	0.0000	0.9328	0.1584	1.860	4.366
LISTSTAT	0.7400	0	1	0.4370	−1.130	−0.731
CONSTRASE	0.3300	0	1	0.4720	0.718	−1.497
INDPROP	0.5400	0	1	0.5000	−0.146	−1.996
ROA	0.0101	−3.0172	0.2037	0.2259	−10.814	140.20
GROWTH	1.0515	0.3081	7.9680	0.7092	5.424	42.856

Notes: Variable definitions: MONIITOR = total monitoring costs (ln); MGROWN = executive directors' shareholdings (per cent); DEBTSTRC = long-term debt to market value of the firm; SIZE = total assets (ln); COMPLEX = number of subsidiaries (ln); RECINV = ratio of inventories and receivables to total assets; ROA = ROA; RISK = current year loss (dummy); GROWTH = Tobin's Q; LISTSTAT = board listing (dummy); CONSTRASE = companies in consumer, trading and service sectors; INDPROP = companies in industrial, constructions and property sectors

Table II.
Normality test statistics of sample companies

Table III.
Correlation matrix

Variables	MONITOR	MGROWN	DEBTSTR	RECINV	RISK	SIZE	COMPLEX	ROA	GROWTH	LISTSTAT	CONSTRASE	INDPROP
MONITOR	1.00											
MGROWN	−0.26***	1.00										
DEBTSTRC	0.24***	−0.01	1.00									
RECINV	−0.21***	0.19***	−0.37***	1.00								
RISK	−0.25***	−0.03	0.07	0.00	1.00							
SIZE	0.82***	−0.21***	0.42***	−0.40***	−0.23***	1.00						
COMPLEX	0.61***	−0.10*	0.22***	−0.14**	−0.04	0.52***	1.00					
ROA	0.15**	0.07	0.02	0.05	−0.43***	0.20***	−0.05	1.00				
GROWTH	0.09*	−0.13**	−0.16**	0.00	0.01	0.05	−0.04	0.50***	1.00			
LISTSTAT	0.32***	−0.13**	0.06	−0.23***	−0.28***	0.47***	0.21***	0.18***	0.06	1.00		
CONSTRASE	0.11*	−0.11*	−0.02	0.09*	−0.10*	0.02	0.09*	0.07	0.04	0.00	1.00	
INDPROP	−0.15**	0.10*	0.01	0.09*	0.09*	−0.09*	−0.07	−0.08	−0.08	−0.09***	−0.76***	1.00

Notes: Significance at: *10, **5, ***1 per cent levels; see variable definition in Table II

Table IV. Cross sectional OLS regression of monitoring costs on managerial ownership and control variables

Variables	Total executive directors shareholding is considered		Only direct shareholding is considered		Only indirect shareholding is considered		Total board of directors shareholding is considered		Segmented the companies to those with high and low managerial shareholding		Segmented the companies to those with and without managerial shareholding	
INTERCEPT	1.833**	2.786	1.741**	2.621	1.525**	2.343	1.844**	2.801	1.760**	2.678	1.977**	2.928
MGROWN	−0.400**	−2.708	−0.506**	−1.978	−0.230*	−1.535	−0.395**	−2.729	−0.166**	−2.426	−0.257**	−2.597
DEBTSTRC	−0.502**	−2.028	−0.518**	−2.072	−0.562**	−2.259	−0.516**	−2.087	−0.538**	−2.174	−0.482*	−1.933
RECINV	0.510**	2.536	0.473**	2.350	0.458**	2.270	0.500**	2.494	0.481**	2.399	0.513**	2.544
RISK	−0.180*	−1.864	−0.157	−1.619	−0.171*	−1.747	−0.173*	−1.790	−0.172*	−1.775	−0.204**	−2.079
SIZE	0.544***	14.950	0.542***	14.546	0.558***	15.337	0.545***	15.037	0.547***	15.037	0.541***	14.790
COMPLEX	0.268***	6.058	0.273***	6.107	0.264***	5.896	0.266***	6.017	0.269***	6.052	0.283***	6.321
ROA	0.084	0.409	0.118	0.569	0.057	0.273	0.074	0.360	0.096	0.465	0.033	0.160
GROWTH	0.078	1.315	0.094	1.582	0.080	1.332	0.070	1.189	0.075	1.266	0.067	1.131
LISTSTAT	−0.248**	−2.838	−0.228**	−2.586	−0.251*	−2.830	−0.250**	−2.856	−0.251**	−2.854	−0.255**	−2.900
CONSTRASE	−0.042	−0.375	0.009	0.079	−0.034	−0.306	−0.042	−0.383	−0.035	−0.313	−0.062	−0.555
INDPROP	−0.147	−1.405	−0.115	−1.092	−0.151	−1.422	−0.158	−1.509	−0.149	−1.423	−0.153	−1.461
R^2	0.765		0.762		0.760		0.765		0.764		0.764	
Adjusted R^2	0.753		0.750		0.748		0.754		0.752		0.753	
F-statistics	66.022		64.741		64.157		66.064		65.479		65.802	
p-value	0.000000		0.000000		0.000000		0.000000		0.000000		0.000000	

Notes: Significance at: *10, **5, ***1 per cent levels; see variable definition in Table II by Anderson *et al.* (1993) on monitoring cost, which use Australian data, where its adjusted R^2 is 0.423.

The independent variable, managerial ownership appears to have significantly negative relationship with monitoring costs as predicted by agency theory. This result implies that the greater the managerial ownership in an organisation the lower is its total monitoring costs. This finding is consistent with earlier studies in western countries by Jensen and Meckling (1976), Fleming *et al.* (2005), Ang *et al.* (2000), Jensen (1993), Niemi (2005) and Friend and Lang (1986).

This result is also consistent with the convergence of interest model which claim that an increase in the proportion of firm's equity owned by insiders is expected to increase firm value as the interest of inside and external shareholders are realigned, thus result in less conflict among the shareholders. Furthermore, there will be less information asymmetry and less hierarchical organisational structure as the managers are now the owners, and are actively engaged in day-to-day activities of the organisations (Niemi, 2005). This is agreed by Ang *et al.* (2000) and Fleming *et al.* (2005), who claim that the managers' incentive to consume perquisites declines as their ownership share rises because his share of the firm's profits rises with ownership while his benefits from perquisite consumption are constant. A local study by Mat Nor and Sulong (2007) also argues along the same line by claiming that when managers own a smaller portion of the organisation's share, they have greater incentive to pursue personal benefits and less incentive to maximise firm values.

Furthermore, this result may also be more pronounced in the Malaysian unique concentrated business environment. Malaysia is unique because it is a multiracial country. Sendut (1991) states that Malaysia is probably the only country in the world which has its population mix maintaining their separate identities, preserving their separate culture, behaviour patterns, different languages and architectural styles, which makes Malaysia a varied and fascinating environment. Its population includes people from different ethnic groups (such as Malays, Chinese, Indian, Kadazans, Bajau and a few others), which have different culture and beliefs. In relation to businesses, it is claimed that businesses by these ethnic groups in Malaysia are very concentrated, especially those businesses controlled and owned by Chinese (Horii, 1991). It is also claimed that owner-managed companies are common among listed companies in Malaysia (Mat Nor and Sulong, 2007), especially with family businesses (Haniffa and Hudaib, 2006). This claim is further supported by Ow-Yong and Guan (2000), who posit that newly listed companies in Malaysia evolved from traditional family-owned companies, and some of these companies continue to be managed as such. Another study using Malaysian data also claimed that Malaysian businesses have a high degree of ownership concentration where it was found 67.2 per cent of the sample companies were controlled by families and managed by owner-managers (Liew, 2007). As their businesses are owner-managed and family-controlled, their monitoring costs are claimed to be lower than those controlled by non-family shareholders (Fleming *et al.*, 2005; Fama and Jensen, 1983b). This is due to the fact that families have a committed, undiversified stake in the firm and this provides a strong incentive to monitor, as the firm's survival and its value maximization is important for them (Anderson *et al.*, 2002; Fleming *et al.*, 2005). It is claimed that family businesses would normally prefer family members in the management of the companies and utilize their influences and contacts in the recruitment of employees and other business relationship, resulting in lower operational risks and lower transaction and agency costs (Che Ahmad, 2001). They tend to place their family members in the top management positions of the business.

Further investigation of the companies in this study reveals that more than 51 per cent of the sample companies are family-managed organizations which appoint the family members as their directors and own the shares of the organizations. Of these, 41 per cent are businesses controlled by Chinese who are said to belong to a cultural tradition of ancestor worship normally derived from family businesses (Horii, 1991; Sendut, 1991). Thus, as the managers are also the owners in these businesses, the organization structure has lower information asymmetry, a less complex organization structure and more committed staff, as they have incentives to monitor the firm, which will reduce the need for assurance and monitoring.

This concentrated agency setting is also expected to result in low conflict among the contracting parties (Fleming *et al.*, 2005; Fama and Jensen, 1983b), and thus lead to low risk (Francis and Wilson, 1988) and low monitoring costs. They tend to run the businesses themselves or appoint family members, and they are concerned with the survival of the organisations, not only over their lifetime, but also they are concerned with the well-being of the next generation (Bhattacharya and Ravikumar, 2001). Thus, they will really consider the monitoring costs incurred by the companies and the allocation of the resources in order to ensure the future survival of the organisations.

The finding of this study is also consistent with earlier studies using Malaysian data by Abdullah (2006) and Nikkinen and Sahlstrom (2004). Abdullah's (2006) study provides evidence that support the contention that ownership by non-executive directors significantly increase their incentives to monitor management to ensure that their wealth is taken care of. Nikkinen and Sahlstrom (2004) conduct an analysis on audit pricing (one of the monitoring costs in this study) and its relationship with agency theory by using data from seven countries including Malaysia. Consistent with the theory, they find a significant negative relationship of managerial ownership with audit fees at 5 per cent level of confidence for Malaysian data.

Further tests. In order to get a clear picture of the ownership characteristics of Malaysian companies, sensitivity analysis are also carried out. The proxy for managerial ownership (MGROWN) is defined as the percentage of executive directors' total shareholdings. As a test of sensitivity, the main model is re-estimated with the independent variable MGROWN, redefined as the percentage of executive directors' direct shareholdings only. The result for the model is not affected by this alternative. As expected, in agency theory, the result in column three of Table IV appears to suggest that the greater the direct managerial control in the organisation, the lower is the relative expenditure in total monitoring.

Another test of sensitivity is conducted where MGROWN is redefined as the percentage of executive directors' indirect shareholdings only. Again, the result for the model is not affected by this alternative. As expected, in agency theory, the result indicates that indirect managerial control in the organization has an inverse relationship with total monitoring costs (refer column four of Table IV).

Alternatively, the proxy for managerial ownership (MGROWN) is redefined as the percentage of board of directors' total shareholdings which includes both executive and non-executive directors' shareholdings. The result for the model in column five of Table IV is not affected by this alternative. The result suggests that the greater the managerial control (by both executive and non-executive directors) in the organization, the lower is the relative expenditure in total monitoring costs in directorship and auditing. The direction of the relationship is as predicted in agency theory.

Further tests in column six and seven of Table IV are carried out by segmenting the sample companies into:

(1) companies with high and low managerial shareholdings by using the average managerial shareholdings in Table I as a cut-off point; and
(2) those companies which have managerial shareholdings and those with no managerial shareholdings.

The main model is re-estimated using these alternatives. The re-estimated results for both alternatives indicate that managerial ownership has negatively significant relationship with monitoring costs at $p < 0.01$, while other variable remain the same.

Independent t-tests are also carried out using the same segmented data in (1) and (2). Both test results show significant results. The result of the test reveals that the monitoring costs of companies which have high managerial shareholdings are significantly different from those with low shareholdings (at p-value < 0.00). The average monitoring costs for those with high and low shareholdings are RM533,436 and RM1,196,508, respectively. The t-test result for those companies with and without managerial shareholdings is also significant and shows the same pattern of result. The average monitoring costs of companies which have managerial shareholdings is RM656, 491, which is less than RM1,897,687, for those companies without such shareholdings.

Conclusions

This paper focuses on managerial ownership, as the mechanism used to align the interests of managers and shareholders in Malaysian PLCs. It provides evidence of this agency relationship in non-western country. The result reveals that consistent with the earlier findings in western countries (Jensen and Meckling, 1976; O'Sullivan, 2000; Ang *et al.*, 2000; Fleming *et al.*, 2005; Nikkinen and Sahlstrom, 2004; Niemi, 2005), managerial ownership is a significant factor in influencing the companies' monitoring costs. The result also suggests that managerial ownership in Malaysian companies has a significant negative relationship with total monitoring costs as predicted by agency theory and convergence of interest hypothesis. Sensitivity analysis conducted on the direct managerial shareholdings only and indirect shareholdings only also reveal the same pattern of results.

However, the conclusions drawn from this study should be interpreted in a limited way, which would potentially represent opportunities for further investigation in future research. First, this study is a cross sectional study, where it uses one-year of data in 2006 only. Future research could extend the study to include more years of data and thus longitudinal studies can be conducted and further investigation on the impact of the managerial ownership on the demand for monitoring mechanisms in the short- and long-terms can be analyzed. Second, this study only examines one type of ownership structure, which is the managerial ownership. Future research can also examine other forms of ownership structure which is unique to Malaysian companies, such as family ownership and government-linked companies, in relation to their relationship with the agency costs.

Note

1. The data are said to be normal if the standard skewness is within ±1.96 and standard kurtosis is between ±3.0 (Mat Nor and Sulong, 2007; Abdul Rahman and Mohamed Ali, 2006; Haniffa and Hudaib, 2006).

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