THE EFFECT OF ROLE DUALITY ON CORPORATE PERFORMANCE IN MALAYSIA

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Abstract

The Malaysian Code on Corporate Governance (MCCG) recommends a separation between the position of CEO and Chairman to ensure a balance of power and authority, such that no individual has unfettered powers of making decision. It was hoped that the code would lead to more independent boards so as to provide the essential checks and balances over management's performance. Thus, the current study seeks to explore the extent CEO duality influence corporate performance in Malaysia. The findings indicate that companies with CEOs role duality seemed not to perform as well as their counterparts with separate board leadership based on accounting performance measurements, ROE and ROA. This implies that the recommendation by the MCCG to have the two roles separated is deemed very important and must be implemented fully.

Keywords: corporate governance, role duality, corporate performance

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Introduction

The economic crisis in 1997 has affected investors' confidence (particularly foreign investors) in the Malaysian capital market. Corporate governance mechanism may be the key in restoring investors' confidence in the capital market once again. Thus, the introduction of the Malaysian Code of Corporate Governance (MCCG) in 1999 by the Finance Committee on Corporate Governance (FCCG) can be seen as a vital step towards improving corporate governance practices of listed companies. The contribution of corporate governance is seen in the light of corporate accountability and business prosperity with the ultimate aim of enhancing shareholder value of the company in the long run while taking into account the interests of other stakeholders (FCCG, 1999, p: 52).

One of the corporate governance issues that have given rise to concern is role duality or the 'dominant personality' phenomenon where the CEO is also the chairman of the board. Similar to the recommendation made in the Cadbury Code of Best Practices (Cadbury Report, 1992), MCCG (2001) also recommends a separation between the position of CEO and Chairman to ensure a balance of power and authority, such that no individual has unfettered powers of decision. This would lead to more independent boards. Where the roles are combined, there should be a strong independent element on the board and the decision to do so should be publicly explained.

Although role duality is not common in Malaysian corporations (Haniffa, 1999; PwC, 1998, 2001), companies are encouraged to separate the two roles to ensure proper check and balance on the top leadership of the corporation as suggested in the MCCG. Hence, it is worth investigating whether separation of the roles of CEO and Chairman helps to improve corporate performance.

A review of the literature on studies conducted to determine the relationships between either separate or joint leadership structure and corporate performance in the US (e.g. Davidson et al., 1996; Rhoades et al. 2000) and in the UK (e.g. Peel and O'Donnell, 1995; Dahya et al., 1996) shows a fairly

mixed result within a country. Thus, the current study aims to contribute to the debate by examining the composition of role duality among Malaysian listed corporations and to explore the extent to which such leadership structure influences firm performance so as to provide insights into the appropriate governance mechanism suitable for adoption given the business climate in the country. The current research is also motivated by the lack of published studies conducted in the area of corporate governance in Malaysia in understanding the link between performance and role duality as compared to its counterparts in developed countries that may have different regulatory and economic environment.

The rest of this paper is organised as follows. The next section reviews the relevant literature in the area and presents a discussion of previous studies undertaken on the relationship between CEO role duality and corporate performance. In addition, a presentation of the research method adopted in the study including sample selection procedures and data sources, together with the results are discussed. The final section draws conclusion from the study.

Literature review

There are two views regarding the issue of separating the role of the Chairman and that of the CEO. Proponents of agency theory argue that the chairman has to be independent in order to check on the possibility of the over-ambitious plans of the CEO. The separation of the two roles is also necessary so as to provide the essential checks and balances over management's performance (Argenti, 1976; Stiles and Taylor, 1993; Blackburn, 1994) because someone who holds two top positions is more likely to pursue strategies which advance personal interests to the detriment of the firm as a whole (Jensen and Meckling, 1976; Jensen, 1986). Agency theory therefore suggests that role duality reduce the monitoring effectiveness of the board over management and supports the separation of the role of CEO and Chairman.

On the other hand, those who favoured role duality use stewardship theory to support their case. They argue that manager will act in the best interests of the shareholders as their compensation is dependent on performance and as such, role duality may enhance board effectiveness. Stewart (1991) also asserts that role duality enhance decision-making process as it permits a sharper focus on company objectives and promotes more rapid implementation of operational decisions. Dahya et al. (1996) believe that role duality allows the CEO with strategic vision to shape the destiny of the firm with minimum board interference which could also lead to improved performance resulting from clear unfettered leadership of the boards (Rechner and Dolton, 1991). As such, there is no problem if the two roles are combined.

However, empirical analyses of the impact of role duality on various corporate performance measures yield mixed results. Rhoades et al. (2001) examine the relationship between board leadership structure using dummy variable[48] and organisational performance[49] found a significant relationship between CEO role duality and firm performance. However, the study by Peel and O'Donnell (1995) found no significant difference in performance of companies[50] with and without role duality. Davidson et al. (1996) studied the influence of CEO role duality on financial performance of a sample of 1000 largest US firms using a two-sample t-test. The results were found to be mixed in sign and statistically insignificant. Brickley, Cools and Jarrell (1997) also found no systematic link between duality status and organisational performance or market value.

Dahya, Lonie and Power (1996) investigate whether investors in the UK prefer role duality in companies. Using a sample of 124 companies over the 48-month period from January 1989 to December 1992, their study showed that the stock market appears to have abnormal return of 0.16 percent over the 10-day period and were statistically significant at the 5 per cent level. They concluded that the market responds favourably to the separation of the two roles and that accounting performance[51] of companies with role duality appears to decline.

In another study by Balinga et al. (1996), announcement effects of changes in a firm's duality status are examined to determine if the capital market view changes in duality status as a factor likely to impact performance. The findings in their study indicate no significant relationship between duality status and corporate performance, measured by operating performance and industry-adjusted standardized Market Value Added (MVA)[52]. They conclude that a change in status from duality to non- duality might be a symbolic move by the board to signal that they are exercising their governance role, rather than substantive move that can affect performance.

Research methodology

Hypothesis

Due to the fairly mixed results found in previous studies as discussed above, the main concern of the

[48] The coding scheme uses 1 to represent dual-title holders and 0 to represent all other structure.

[49] Performance measures were coded by market base categories or accounting categories with return on assets (ROA) and return on equity (ROE).

[50] Variables on standard market measurement were based on the risk-return characteristics of the shares in each company while corporate performance measures were based on accounting profitability (ROA), liquidity and gearing

[51] Performance measurement based on ROS, Quick Asset and Capital Gearing. Mann-Whitney test was used to test on the equality of medians.

[52] MVA measures as computed by Stern Steward & Co. are defined as the market value of a firm's capitalisation less the capital contributions from investors to the firm.

current study is to explore the extent of CEO duality influences firm performance in Malaysia. Thus, the hypothesis to be tested is stated as follows:

H_1: there is an association between role duality and corporate performance.

Sample

The sample in this study consists of all non-financial and non unit trusts companies listed on the main board of Kuala Lumpur Stock Exchange (KLSE) as at financial year ended 1996 and having full data covering the period 1996-2000. The reason for excluding financial and unit trusts companies from the sample is due to differences in the regulatory requirements in their reporting. The sample period from 1996 until 2000 were selected in order to analyse the impact of leadership structure on corporate performance over a longer period as well as to provide evidence on the relationship one year preceding and following the issuance of the MCCG on corporate performance. The yearly performance data for all companies are computed on a 12-month reporting cycle. However, if the reported data did not confirm to the 12-month cycle (e.g. change of financial year-end date), a pro-rata adjustment is made to streamline the reporting period. The final number of companies included in the sample was 347 for each year.

Variables

The data collected for this study comprised of two categories: dependent and independent variables. The dependent variables consist of three firm performance measurement; Tobin's Q, return on equity (ROE) and return on assets (ROA). Independent variables consist of board leadership or role duality and three control variables viz. gearing, sales or turnover as proxy for size, and capital expenditure. Table 1 provides a summary of the operationalisation of the dependent, independent and control variables selected in this study as well as their source of information.

"Please insert Table 1 here"

Data on sales, earnings after tax, total debt, capital expenditure, shareholder equity, total asset and share price for calculating the companies performance are obtained from annual reports, DataStream and KLSE Annual Companies handbook for the period 1996 to 2000. The data for board leadership is obtained from companies' annual reports at KLSE and the Registrar of Companies (ROC) for the period 1996 until 2000, based on the position at the end of the previous year because the position at the beginning of the relevant financial year is responsible for overseeing company performance during the year.

Similar to the study by Subrahmanyam (1997) and Vafeas and Theodorou (1998), OLS regression models (based on three performance measures) are used to examine if leadership structure influences firm performance.

Model 1 $QRatio = B_0 + B_1 DUAL + Control\ variables +$
Model 2 $ROE = B_0 + B_1 DUAL + Control\ variables +$
Model 3 $ROA = B_0 + B_1 DUAL + Control\ variables +$

Where,

B_o	– intercept
Qratio	– is a proxy for Tobin's Q which measures performance in terms of company valuation. It is defined as market capitalisation plus total debt divided by total assets.
ROE	– is a proxy for accounting measure of performance (EAT/Shareholders Equity).
ROA	- is another proxy for accounting measure of performance (EAT/Total Assets).
DUAL	– One if executive director is also the chairman of the board and zero otherwise.
Control	– presents variables included as control variables viz. size based on sales (LNSA), gearing (GEAR) based on % of total debt to total assets, and capital expenditure (PCEXTA) based on % of capital expenditure to total assets.
	error term.

Measurement of Dependent Variable

Since no single measure of corporate performance is perfect (Cochran and Wood, 1984), both accounting and market returns are employed in this study. Tobin's Q (Qratio), used as a proxy for market return is measured by the ratio of the market value of common shares (number of common shares multiplied by the share price at the end of the year) plus total debt divided by the book value of total assets. ROE and ROA are used as proxies for accounting return. ROE is the average annual realised rate of return measured by dividing earnings after tax by shareholders equity. It represents the ultimate measure of how well companies serve their shareholders' economic interests. ROA is measured by dividing earnings after tax by total assets of the company.

These performance indicators have also been used in previous studies on firm performance (e.g.

Dalton and Daily, 1998; Rhoades et al., 2001; McConnell and Servaes, 1990).

Measurement of the Independent Variables

Similar to the study by Rhoades et al. (2001) a coding scheme is used in the current study to examine the relation between board leadership and corporate performance. The independent variable, board leadership or role duality (DUAL), is the separation of the role of Chairman and CEO, where firms that combined the title are labelled '1' and firms that separated the title are labelled '0'. A negative relationship is expected (consistent with higher agency costs), signifying better performance in the absence of role duality.

Three control variables viz. company size, gearing, and capital expenditure were also included in the regression model to avoid corporate performance being influenced by other factors. The natural log of annual sales (LNSA) is used as proxy for size and it is expected to be positively related to performance. Size is used as a control variable because company performance may be a function of size (larger firms are more profitable than smaller firms) and may bias the result (Ghosh, 1998). Leverage or gearing ratio (GEAR) which measures the extent to which total asset have been financed with debt is based on percentage of total debt to total assets and it is expected to be positively related to performance as creditors would put pressure for companies to perform better. Gearing is used as a control variable because during times of economic stress or rising interest rate, companies with high gearing can experience financial problem. However during good times, gearing can enhance profitability by financing growth at a lower cost (Archelis, 2002).

Corporate performance may also be a function of capital expenditure. It is possible that improvement in performance may be related to a reduced asset base following disposal of assets. Similarly, an increase in asset base as a result of acquiring assets is the source of the perceived poor performance (Abdul Rahman, 2000). Capital expenditure (PCEXTA) in the current study is the percentage of capital expenditure to total assets and it is expected to be positively related to performance, signalling long-term growth potential.

Results

Descriptive Statistics

Descriptive statistics are performed in this study to gain an understanding of the characteristics of the sampled companies in the 5-year period of analysis (1996-2000). Table 2 provides the descriptive statistics for the dependent and control variables over each of the five-year period (1996-2000) as well as for the pooled data (combined for all five years). It can be seen that the mean for Qratio decreased in 1997 indicating the possible effect of the economic crisis but improved in 1998 due possibly to investors' gaining confidence by the steps taken by the government to improve governance practices in the country. However, the mean dropped slightly in 1999 and 2000 signaling market adjustments. In the case of accounting measures, both ROA and ROE show similar trends i.e. declining performance in 1997 and 1998 but improvement in 1999 and 2000. Interestingly, negative results were found for both performance measures in 1998, showing a one-year lag effect of the economic crisis.

"Please Insert Table 2 here"

Table 3 presents the descriptive analysis for role duality. It can be seen that the incidence of role duality seemed to increase from only 8.8% in 1996 to about 17.9% in 1999. As for the pooled data, only 11.8% of the sample had the same person undertaking the combined roles of CEO and Chairman[53]. This indicates that the incidence of role duality is still relatively low compared to the case in the UK and US where role duality is common practice. O'Sullivan (2002) and Vafeas and Theodorou (1998) found role duality to be present in 33% and 66% of UK boards respectively while Booth and Deli (1996) found 81% cases of role duality for US boards.

"Please Insert Table 3 here"

Regression Results

Tables 4, 5 and 6 report the results from regression equations linking role duality and corporate value based on three different performance measurement viz. Tobin's Q, ROE and ROA[54]. It can be seen in Table 4 that the variable role duality (DUAL) is not significant for all years and even for the pooled data. Thus, the results does not support the argument of stewardship theory that role duality (where the CEO is also the Chairman of the board) enhances firm market value.

Looking at the pooled data in Model 1 of Table 4, Gearing (GEAR) is significantly different at the 1% level which indicates that high gearing makes a difference in putting pressure on companies to per-

[53] Price Waterhouse (1998) found 91% of a total number of 304 Malaysian listed companies, over the period 1996, 1998 and 1999, practised separation of Chairman and CEO role.

[54] The residual of the regression linking role duality and performance based on Tobin's Q indicate problem in normality assumption. Hence, the Tobin's Q ratio data and independent variables (gearing and capital expenditure) were transformed using normal scores to fulfil the assumption of normality before the OLS regression analysis can be conducted.

form well. The coefficient for Size (LNSA) is significant at the 1% level but it is negatively related, indicating that smaller firms are more profitable than larger firms. The capital expenditure ratio (PCEXTA) is also significant at the 5% level and the coefficient is in the same direction as predicted i.e. higher capital expenditure ratio, better firm performance.

"Please insert Table 4 here"

Table 5 reports the result of the regression analysis using ROE, an accounting measure of performance, as the dependent variable. Role duality is found to be negatively related to corporate performance at the 1% significant level only for the year 1999 and 2000. As for the pooled data in Model 2, role duality is found to be negatively related to corporate performance at the 1% significance level. All control variables are significant at the 1% level, and the coefficients are in the same direction as predicted.

"Please insert Table 5 here"

Table 6 reports the result of the regression analysis using ROA, another accounting measure of performance, as the dependent variable. The pooled data shows that Role duality (DUAL) is again found to be negatively related to corporate performance, significant at the 1% level. All control variables are also significant at the 1% level, and the coefficients are in the same direction as predicted.

"Please insert Table 6 here"

In summary, the results in the current study indicate that there is a negative association between role duality and corporate performance only when ROE and ROA are used as a measure of performance. This result is similar to the findings of Dahya et al. (1996) who found that accounting performance of companies, measured based on Return on Sales, decline with role duality. The result in the current study, however, is in contrast to that of Peel and O'Donnell (1995) and Balinga et al. (1996) who found no significant difference in performance of companies with and without role duality. When Tobin's Q, proxy for market-based performance measurement is used, the result in the current study found no significant link between duality status and firm performance, similar to that found by Davidson et al. (1996).

Conclusions and recommendations

The results in the current study provide evidence that there is an increasing trend of CEO-duality in Malaysia, from 8.8% in 1996 to about 17.9% in 1999. The results also show that companies with role duality seemed not to perform as well as their counterparts with separate board leadership based on accounting performance measurement, that is, ROE and ROA. However, the market reacts indifferently to companies with or without role duality. The results found in the current study indicate that CEO-duality reduce the monitoring effectiveness of the board over management, resulting in the poor accounting performance of the company as a whole. Thus, this implies that the recommendation by the MCCG to have the two roles separated is deemed very important and must be implemented fully. The separation between the position of CEO and Chairman, which may lead to more independent boards, will provide the essential checks and balances over management's performance.

Our results help to establish a starting point for exploring empirically the importance of corporate governance structure in Malaysia, an area that has only received little attention previously by empiricists. Notwithstanding the findings, the current study suffers the following limitations and would potentially represent opportunities for further investigation.

To obtain a greater understanding of the findings presented in this study, several areas of future research can be conducted. One approach is to use case analysis by examining a few of the companies in greater detail to have better insights to the actual motives of having role duality on the board. Only role duality variable is considered in this study, hence, future studies may want to consider other corporate governance variables such as board composition, cross-directorship, and audit committees. In addition, board composition structure can be further explored by classifying NEDs into independent and grey directors.

References

1. Abdul Rahman, R. 2000. The Effect of Corporate Acquisitions on The Operating Performance of Malaysian Companies, Unpublished PhD Thesis, University of Stirling, Scotland.
2. Archelis, S.B. 2002. Powerful Technical Analysis Tools for More Profitable Investing, http://www.equis.com/free/taaz/fundamental.html
3. Argenti, J. 1976. Corporation Collapse, the Causes and Symptoms, John Wiley & Sons, New York.
4. Balinga, R.B., Moyer, C.R and Roa, R.B. 1996. CEO Duality and Firm Performance: What's the Fuss, Strategic Management Journal, 17, 41-53.
5. Blackburn, V. 1994. The Effectiveness of Corporate Control in the US Corporations, Corporate Governance-An International Review, 2,196.
6. Booth, J.R. and Deli, D.N. 1996. Factors Affecting the Number of Outside Directorships by CEOs, Journal of Financial Economics, 40, 81-104.
7. Brickley, J., Coles, L. and Jarrell, G. 1997. Corporate Leadership Structure: On the Separation

of the Positions of CEO and Chairman of the Board, Journal of Corporate Finance, 3, 189-220.
8. Cadbury Report. 1992. The Financial Aspects of Corporate Governance, Gee & Co., London.
9. Cochran, P.L and Wood, R.A. 1984, Corporate Social and Responsibility and Financial Performance, Academy of Managerial Journal, 27, 207-217.
10. Dahya, J., Lonie, A.A. and Power, D.M. 1996. The Case for Separating the Roles of Chairman and CEO: An Analysis of Stock Market and Accounting Data, Corporate Governance-An International Review, 4, 71-77.
11. Dalton, D.R. and Daily, C.M. 1998. No Return on Independence, Chief Executive, 138, 58-59.
12. Davidson III, W.N, Worrell, D.L. and Numec, C. 1996. The Influence of Board of Directors and Financial Performance, Corporate Governance-An International Review, 4, 11.20.
13. Financial Code on Corporate Governance. 1999. Report on Corporate Governance, Ministry of Finance, Malaysia.
14. Ghosh, A. 1998. Does Accounting Base Performance Really Improve Following Corporate Acquisitions?, Working Paper Zickling School of Business, Baruch College (CUNY), New York, USA.
15. Haniffa, R.M. 1999. Culture, Corporate Governance and Disclosure in Malaysia Corporations, Unpublished PhD. Thesis, University of Exeter, U.K.
16. Investor Digest (2001-2002), KLSE Publication, Kuala Lumpur.
17. Jensen, M.C and Meckling, W.H. 1976. Theory of The Firm: Managerial Behaviour, Agency Costs and Ownership Structure, Journal of Financial Economics, 3, 305-360.
18. Jensen, M.C. 1986. The Agency Costs of Free Cash Flow, American Economic Review-Papers and Proceedings, 76, 326-329.
19. KLSE Listing Requirements. 2001 Corporate Governance, Chapter 15, KLSE Publication, Kuala Lumpur.
20. Kuala Lumpur Stock Exchange and PricewaterhouseCoopers. 1998. Corporate Governance on Public Listed Companies in Malaysia, KLSE Publication, Kuala Lumpur.
21. Kuala Lumpur Stock Exchange Annual Companies Handbook. 1995-2000. KLSE Publication, Kuala Lumpur.
22. Malaysian Code of Corporate Governance. 2001, Malayan Law Journal Sdn Bhd, Malaysia.
23. McConnell, J.J. and Servaes, H. 1990. Additional Evidence on Equity Ownership and Corporate Value, Journal Of Financial Economics, 27, 595-612
24. O'Sullivan, N. 2002. Good Governance or Self-Interest? Factors Affecting the Holding of Additional Directorships by UK Executives, Working Paper of the Business School, Loughborough University, UK.
25. Peel, M.J. and O' Donnell, E. 1995. Board structure, Corporate Performance and Auditor Independence, Corporate Governance-An International Review, 3, 207-217.
26. PricewaterhouseCoopers Survey. 2001. Board Directors: A Survey of Remuneration and Practices, Malaysia.
27. Rechner, P.L and Dalton, D.R. 1991. CEO Duality and Organisational Performance: A Longitudinal Analysis, Strategic Management Journal, 12, 155-160.
28. Rhoades, D.L., Rechner, P.L. and Sudramurthy, C. 2000. Board Composition and Financial Performance: A Meta-analysis of Influence of Outside Directors, Journal of Managerial Issues, 12, 76-91.
29. Rhoades, D.L., Rechner, P.L. and Sudramurthy, C. 2001. A Meta-analysis of Board Directorship Structure and Financial Performance: Are 'Two Heads Better Than One'?, Corporate Governance-An International Review, 9, 311-319.
30. Stewart, R. 1991. Chairman and Chief Executives: An Exploration of Their Relationships, Journal of Management Studies, 28, 511.
31. Stiles P. and Taylor, B. 1993. Maxwell-The Failure of Corporate Governance, Corporate Governance-An International Review, 1, 34.
32. Subrahmanyam, V. 1997, The Role of Outside Directors in Bank Acquisitions, Financial Management, 26, 23-36.
33. Vafeas, N. and Theodorou, E. 1998. The Relationship Between Board Structure and Firm Performance in the UK, British Accounting Review, 30, 383-407.

Appendices

Table 1. Operationalisation of the independent, dependent and control variables selected and the source of information

Variables	Acronym	Operationalisation	Source of information
Tobin's Q	Qratio	Market capitalisation and Total liabilities divided by Total assets	Company annual reports for financial year ending 1996-2000
Return on equity	ROE	Earnings after tax divided by Shareholders equity	Company annual reports for financial year ending 1996-2000
Return on assets	ROA	Earnings after tax divided by Total assets	Company annual reports for financial year ending 1996-2000
Role duality	DUAL	Dichotomous; 1 with role duality and 0 if no role duality	KLSE Annual Companies Handbook 1996-2000 and company annual reports for financial year ending 1996-2000
Sales (proxy for size)	LNSA	Natural logarithm of sales	Company annual reports for financial year ending 1996-2000
Gearing	GEAR	Debt ratio defined as Total debt to Total assets	Company annual report for financial year ending 1996-2000
Capital expenditure	PCEXTA	Proportion of Capital expenditure to Total assets	Company annual report for financial year ending 1996-2000

Table 2. Descriptive statistics of performance measures and control variables

	All Mean Std. Dev. Std. Skewness Std. Kurtosis	1996 Mean Std. Dev. Std. Skewness Std. Kurtosis	1997 Mean Std. Dev. Std. Skewness Std. Kurtosis	1998 Mean Std. Dev. Std. Skewness Std. Kurtosis	1999 Mean Std. Dev. Std. Skewness Std. Kurtosis	2000 Mean Std. Dev. Std. Skewness Std. Kurtosis
Dependent variables:						
Q-Ratio	1.3 2.4 96.42 356.09	2.13 3.4 31.27 79.884	0.98 1.63 46.02 167.32	1.24 2.81 46.81 169.92	1.11 1.73 41.36 148.44	1.03 1.68 35.71 102.42
ROA (%)	2.6 16.3 -0.49 11.15	6.33 8.70 2.9 23.02	5.30 12.84 -0.20 20.5	-1.11 19.80 -0.42 6.83	1.11 17.89 -1.08 8.96	1.36 18.46 0.35 9.0
ROE (%)	3.46 22.24 -1.01 4.56	10.70 13.90 -2.42 15.59	9.00 18.00 0.24 6.36	-3.83 26.11 -1.05 1.69	0.60 25.70 -0.80 3.39	0.83 21.72 -0.38 4.88
Control variables:						
Sales (RM)	768 2495 291.7 3469	646.9 1244 32.5 85.33	726.93 1425 35 102.6	954.06 3953 110 922.3	796.13 3084 104 842.4	714.44 1553 34.4 96.07
Gearing (%)	41.8 24.04 0.22 -0.86	41.56 21.70 1.06 -2.97	43.40 22.64 0.82 -2.74	43.86 24.48 1.08 -3.80	41.0 25.78 2.74 -3.42	38.82 25.14 2.45 -3.46
Capital expenditure to total assets (%)	6.55 9.298 2.81 9.33	8.21 9.54 2.36 7.09	7.70 8.42 1.94 4.16	5.90 8.28 3.22 12.94	5.04 9.15 3.42 12.96	5.89 10.57 3.18 10.53

Table 3. Incidence (Percent) of role duality

	ALL	1996	1997	1998	1999	2000
NO DUALITY (%)	88.2	91.2	90.8	87.3	87.9	82.1
WITH DUALITY (%)	11.8	8.8	9.2	10.7	12.1	17.9

Table 4. Model 1 Cross-sectional OLS Regression of Tobin's Q Ratio on Corporate Governance Characteristics and Control Variables for a Sample of 347 Malaysian Public Listed Companies

QRatio = B_0 + B_1DUAL + Control variables +

	Predicted sign	All	1996	1997	1998	1999	2000
R square		0.318	0.372	0.37	0.312	0.22	0.45
Adj. R		0.315	0.36	0.36	0.30	0.25	0.45
Square		56.9	17.32	17.87	10.69	1.4 (p=0.23)	29.13
F value		(p=0.02)	(p=0.08)	(p=0.0)	(p=0.05)		(p=0.00)
Variables							
Intercept		1.89 (19.78)***	2.75 (13.26)***	1.35 (7.22)***	1.87 (9.19)***	1.84 (7.2)***	1.74 (9.22)***
DUAL	-	0.04 (1.03)	0.08 (0.94)	0.03 (0.38)	0.02 (0.28)	0.09 (0.9)	0.05 (0.81)
LNSA	+	-0.05 (-6.8)***	-0.11 (-6.6)***	-0.02 (-1.35)	-0.05 (-3.08)**	-0.02 (-0.8)	-0.05 (-3.71)***
GEAR	+	0.41 (14.24)***	0.41 (5.63)***	0.43 (7.52)***	0.39 (6.15)***	0.18 (2.11)**	0.5 (10.5)***
PCEXTA	+	0.04 (2.54)**	0.09 (2.63)**	0.08 (2.49)**	-0.03 (-0.9)	0.02 (0.4)	0.02 (0.65)

*, **, *** significant at the 0.1, 0.05 and 0.01 levels respectively. *t*-statistics are in parentheses

TABLE 5. Model 2 Cross-sectional OLS Regression of ROE on Corporate Governance Characteristics and Control Variables for a Sample of 347 Malaysian Public Listed Companies

ROE = B_0 + B_1DUAL + Control variables +

	Predicted sign	All	1996	1997	1998	1999	2000
R square		0.328	0.364	0.32	0.363	0.43	0.414
Adj. R		0.326	0.354	0.312	0.353	0.38	0.203
Square		67.7	15.8	11.86	16.57	19.3	10.8 (p=0.00)
F value		(p=0.00)	(p=0.00)	(p=0.00)	(p=0.00)	(p=0.00)	
Variables							
Intercept		-23.97 (-6.13)***	-3.26 (-5.5)***	-31.5 (-4.07)***	-15.06 (-1.56)	-13.9 (-1.49)*	-23.9 (-2.93)**
DUAL	-	-9.4 (-6.04)***	-3.0 (-1.22)	-0.66 (-0.21)	- 6.74 (-1.61)	- 16.6 (-4.3)***	-10.57 (-3.6)***
LNSA	+	3.87 (9.69)***	3.8 (7.87)***	3.68 (5.83)***	2.45 (3.02)***	2.45 (3.27)***	2.70 (4.08)***
GEAR	+	-0.26 (-12.14)***	-0.113 (-3.4)***	-0.18 (-4.3)***	-0.43 (-7.78)***	-0.34 (-6.8)***	-0.182 (-7.3)***
PCEXTA	+	0.197 (3.616)***	-0.105 (1.42)	0.32 (2.90)**	-0.0027 (-0.17)	0.127 (0.91)	0.117 (1.08)

*, **, *** significant at the 0.1, 0.05 and 0.01 levels respectively. *t*-statistics are in parentheses

Table 6. Model 2 Cross-sectional OLS Regression of ROA on Corporate Governance Characteristics and Control Variables for a Sample of 347 Malaysian Public Listed Companies

ROA = B_0 + B_1DUAL + Control variables +

	Predicted sign	All	1996	1997	1998	1999	2000
R square		0.39	0.354	0.29	0.29	0.316	0.31
Adj. R		0.293	0.344	0.27	0.29	0.306	0.30
Square		45.3	15.34	7.89	9.34 (p=0.00)	11.12	10.4 (p=0.00)
F value		(p=0.00)	(p=0.00)	(p=0.00)		(p=0.00)	
Variables							
Intercept		-16.39 (-5.63)***	-13.25 (-3.56)***	-8.7 (-1.55)	-20.7 (-2.7)***	-15.93 (-2.35)**	-19.5 (-2.82)***
DUAL	-	-5.220 (-4.49)***	-1.34 (-0.86)	.47 (0.21)	-2.09 (-0.63)	-6.07 (-2.16)**	-10.4 (-4.2)***
LNSA	+	2.04 (8.61)***	1.9 (6.19)***	1.34 (2.91)***	2.4 (3.84)***	2.02 (3.72)***	2.15 (3.8)***
GEAR	+	-0.161 (-10.0)***	-0.123 (-5.7)***	-0.119 (-3.87)***	-0.23 (-5.4)***	-0.187 (-5.12)***	-0.115 (-2.9)***
PCEXTA	+	0.170 (4.2)***	0.15 (3.2)***	0.317 (3.9)***	-0.04 (-0.31)	0.136 (1.34)	0.146 (1.59)

*, **, *** significant at the 0.1, 0.05 and 0.01 levels respectively. *t*-statistics are in parentheses