

The Impact of Interlocking Directorates on Corporate Performance of Bursa Malaysia Listed Companies

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ABSTRACT

One of the main concerns about interlocking directorates is their effect on corporate performance; however, there is little research undertaken on this issue. Therefore, the objective of this study is to examine the effect of interlocking directorates on corporate performance by considering the nature and the direction of interlocking. The analyses are based on the data of 741 listed companies on Bursa Malaysia in 2007. The Ordinary Least Square regression results show that the number of interlocking companies, inter-industry interlocking directorates and interlocking created by independent directors are all significant and positively related to corporate performance, which is consistent with the resource dependence theory and the corporate governance theory. However, it is also discovered that both multiple directorships by executive directors and non-executive non-independent directors do not have any effect on corporate performance, which is consistent with the class integration theory. Despite the negative perception on interlocking directorates by the public, the findings suggest that interlocking directorates actually benefit shareholders by enhancing the earnings performance of the corporation.

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INTRODUCTION

The issue of directorships has long been discussed in corporate governance research and by policy makers due to the importance of the role of directors in the corporate structure. Among the debated issues is the matter of interlocking directorates, where directors of one company hold additional

directorships in other companies. The holding of multiple directorships has been criticised as it is said to limit the directors' time and commitment in discharging their responsibilities (Ibrahim Raman & Saidin, 2009).

In Malaysia, a study by Haniffa and Hudaib (2006) found negative perceptions related to multiple directorships by the capital market; the study argued that this was due to the perception of 'crony capitalism', 'class consolidation' and 'elite capitalist integration' in the Malaysian business environment. However, Hashim and Abdul Rahman (2011) found that the presence of interlocking directors enhances the quality of financial reporting due to the diligent monitoring and protection guaranteed by the reputation of these directors.

The government's concern about this issue can be seen through the restriction on multiple directorships imposed Bursa Malaysia. Under Paragraph 15.06 of the Listing Requirements, a director of a listed company is restricted from holding not more than 25 directorships (10 in listed companies and 15 in unlisted companies).

One of the main concerns about interlocking directorates is its effect on corporate performance. However, findings from earlier studies by Ferris, Jaghannathan and Pritchard (2003), Haniffa and Hudaib (2006), Liu and Yang (2008), Phan Lee and Lau (2003) and Shao (2010) have all shown mixed results of the effect of interlocking directorates on corporate performance. The mixed results may possibly be due to their failure to recognise the nature and the

direction of the interlocking directorates. Therefore, the objective of this study is to examine the effects of interlocking directorates on corporate performance by considering the nature of directors and the direction of the interlocking directorates.

LITERATURE REVIEW

The basic form of interlocking directorates occurs when a director of one corporation also sits on the board of directors of another corporation (Mizruchi, 1996). It also occurs when two directors from different companies (e.g. A and B) sit on the board of a third company (namely C), where company A and B are directly interlocked with company C (or the other way around) and indirectly interlocked with each other (Phan *et al.*, 2003). Two main theories have been proposed by researchers for the existence of interlocking directorates. The class integration theory proposes that interlocking directorates occur as mutual protection of interest of a social class by its members (Koenig & Gogel, 1981). Under this theory, the directors are appointed from candidates within the personal network of incumbent directors who have similar backgrounds, characteristics and political beliefs to protect the welfare of the individual within the class (Phan *et al.*, 2003). The resource dependence theory as proposed by Pfeffer and Salancik (1978) argues that interlocks occur for the inter-organisational coordination exchange of resources (capital, information and market access) to overcome environmental uncertainty.

Past studies on interlocking directorates focus more on the nature and reasons behind interlocking directorates. Generally, interlocking directorates are found to be a common phenomenon and an increase in the trend of interlocking directorates is found around the world (see for example Dooley, 1969; Ferris *et al.*, 2003; Haniffa & Hudaib, 2006).

Several factors contributing to the occurrences of interlocking directorates among corporations have been identified by earlier studies. Dooley (1969) hypothesised that the proven ability and the influence of directors of large corporations towards others (such as industry, potential investors and government) and the importance of business connections with large corporations by small/medium corporations, make the directors of large corporations attractive candidates for other boards. Dooley also posits that due to the importance of corporation-financial institution relationships such as funding (for the corporation) and reliable customers (for the financial institutions), interlocking directorates have been related to financial institutions. Dooley postulates that financially-difficult-corporations need to have a close connection with financial institutions (so they can have more ready access to funds) and at the same time, the need of monitoring by financial institutions has led to the occurrence of interlocking directorates by financial institutions. In addition, the existence of trust operations by financial institutions has also been a leading factor for the occurrence of interlocking directorates by financial

institutions (Dooley, 1969). Besides that, the appointment of individual directors to other boards is the market's reward to the individuals due to the superior performance enjoyed by the corporation in which the director serves (Ferris *et al.*, 2003). It has also been postulated that the predominance of non-executive directors on the board of directors will lead to more interlocks since these directors will favour the nomination of individuals in their elite class (Phan *et al.*, 2003). At the same time, executive directors are less likely to hold directorships in other corporations due to their commitment and as well as to time constraints (Dooley, 1969).

HYPOTHESES

Several arguments based on corporate governance and organisational theories have been used by earlier studies in hypothesising the effects of interlocking directorates on corporate performance. The class integration theory proposes that interlocking directorates occur as a form of mutual protection of interest within a social class by its members and therefore, it has been argued that interlocking directorates do not have any effect on corporate performance (Koenig & Gogel, 1981; Phan *et al.*, 2003). The corporate governance theory, however, offers that holding multiple directorships may have a negative effect on corporate performance due to limitation of time and increase in commitment by the interlocking directors (Ibrahim *et al.*, 2009). Time and commitment limitation may affect interlocking directors' monitoring ability. On the other hand, holding multiple

directorships may increase directors' ability as monitors due to experience and knowledge gained by serving on multiple companies' boards and increase their motivation to discharge their monitoring roles due to the concerns of damage to reputation (Fama & Jensen, 1983). The resource dependence theory as proposed by Pfeffer and Salancik (1978), argues that interlocking directorates occur for inter-organisational coordination exchange of resources (capital, information and market access) to overcome environmental uncertainty, and, thus, may imply that interlocking directorates may have a positive effect on corporate performance.

Prior empirical evidence has shown mixed findings on the effects of multiple directorships on corporate performance. While Liu and Yang (2008) found significant negative relationships between multiple directorships and earnings, Shao (2010) provided evidence of significant positive relationships. The mixed findings by the above studies may probably be due to the failure to recognise the types of director involved in interlocking directorates. Limitation of time and increase in commitment due to holding multiple directorships as argued by Ibrahim *et al.* (2009) may be true for executive directors, due to their daily involvement in business operations, while the argument that experience and knowledge are gained as proposed by Fama and Jensen (1983) may be suitable for non-executive directors, due to their indirect involvement in daily business operations. In the Malaysian

business environment, it can be seen that interlocking directorates are more pronounced among non-executive directors than executive directors. Therefore, the following hypotheses are developed:

H₁: Average multiple directorships have a significant positive relationship with corporate performance.

H_{1a}: Average executive directors' multiple directorships have a negative effect on corporate performance.

H_{1b}: Average non-executive non-independent directors' multiple directorships have a positive effect on corporate performance.

H_{1c}: Average independent directors' multiple directorships have a positive effect on corporate performance.

The above studies view interlocking directorates at the individual (directors) level without considering the organisational (company) level. Interlocking directorates may exist between companies in the same industry (known as intra-industry interlocking directorates) or in different industry (also known as inter-industry interlocking directorates) (Phan *et al.*, 2003). Phan *et al.* (2003) argued that intra-industry interlocking directorates are important for the coordination exchange of resources and inter-industry interlocking directorates are important for a wide view of business environment. Based on Singapore listed companies, Phan *et al.* (2003) found that inter-industry interlocking directorates

have a significant positive relationship with return on equity (ROE) but failed to find any significant effect contributed by intra-industry interlocking directorates. Therefore, the following hypotheses are developed:

- H₂: Total number of interlocking companies has a positive effect on corporate performance.
- H_{2a}: Inter-industry interlocking directorates have a positive effect on corporate performance.
- H_{2b}: Intra-industry interlocking directorates have a positive effect on corporate performance.

METHOD

The archival method is used to collect data from listed companies in Bursa Malaysia both on Main and Second Board (now known as Main Market) in 2007. Listed companies are chosen due to their publicly available annual reports, and 2007 data is used due to the stability of the country both economically and politically during that period of time. As at 31 December 2007, 863 companies are listed on Bursa Malaysia, but only 741 companies are used in the final sample. Due to the difference in the regulatory requirements, all financial and unit trust companies are excluded. In addition to that, newly listed companies are also excluded because of unavailability of prior year annual reports and financial year-end change companies are also excluded due to inconsistency of their data. Furthermore, 42 companies are excluded due to incomplete data and another 12

companies are also excluded due to the negative value of their equity.

For the multivariate analysis, the Ordinary Least Square (OLS) regression will be used. The model takes the following form:

$$\begin{aligned} \text{PERFORMANCE} \\ = & b_1\text{INTERLOCKING} + b_2\text{ISSUE} \\ & + b_3\text{BOARD} + b_4\text{FOREIGN} \\ & + b_5\text{DIROWN} + b_6\text{BODIND} \\ & + b_7\text{BODSIZE} + b_8\text{GROWTH} \\ & + b_9\text{LSUBS} + b_{10}\text{LAGE} \\ & + b_{10}\text{LEVERAGE} + C \end{aligned}$$

The dependent variable represents corporate performance. Two common proxies for corporate performance are market return and accounting return, but only accounting return will be used in this study. The accounting return is suitable for long-term phenomenon, whilst market return measurement is more suitable for the testing of the effects of specific events (Phan *et al.*, 2003). Two accounting return measurements are used, namely, return on equity (ROE) and return on asset (ROA). High values of ROE and ROA indicate effective use of company resources in enhancing the shareholders' wealth. ROE is calculated as the ratio of the net income to the book value of equity and ROA is calculated as the ratio of the net income to the book value of assets.

Consistent with Phan *et al.* (2003), only interlocking directorates within the population and direct interlocking directorates will be counted. The inclusion of interlocking directorates outside the

population and indirect interlocking directorates will complicate the calculation. Two main measurements are used in defining interlocking directorates, namely, average additional directorships and the number of interlocking companies. Consistent with Feris *et al.* (2003), TOTALOCK is measured by the average number of additional directorships held by all directors, EXECLOCK is measured by the average number of additional directorships held by executive directors, NONLOCK is measured by the average number of additional directorships held by non-executive non-independent directors and INDLOCK is measured by the average number of additional directorships held by independent directors. Meanwhile, consistent with Phan *et al.* (2003), INTERLOCK is measured by the number of other companies served in by the directors of the observed company, INTRA is measured by the number of other companies served in by the directors of the observed company within the same industry and INTER is measured by the number of other companies served in by the directors of the observed company in the different industry.

Several factors have been said to affect corporate performance (see for example Fama & Jensen, 1983; Liu & Yang, 2008; Shao, 2010) and therefore, these variables are included in the model to control for the interrelation of these variables. ISSUE is measured by dummy, 1 if observed company issues additional shares or acquires additional loan in the current year and 0 if otherwise; BOARD is measured by dummy,

1 if observed company is listed on Main Board and 0 if otherwise; and FOREIGN is measured by dummy, 1 if observed company has foreign subsidiaries and 0 if otherwise. DIROWN is measured by the proportion of shares, directly and indirectly owned by directors; GROWTH is measured by the changes in sales over prior year sales; LSUBS is measured by natural logarithm of the number of the company's subsidiaries; and LAGE is measured by natural logarithm of the number of years a company is listed on Bursa Malaysia. All of these variables are expected to have significant positive relationships with corporate performance. Meanwhile, LEVERAGE is measured by the proportion of total liabilities over total assets and is expected to have a negative effect on corporate performance. BODSIZE is measured by the number of board of directors' members and BODIND is measured by the proportion of non-executive directors on the board of directors.

RESULTS

Descriptive

Table 1 and Table 2 present the descriptive statistic of the continuous variables and the dummy variables respectively.

Table 1 shows that on average, the return on asset (ROA) is 3.7 % and return on equity (ROE) is 4.5 %. On average, a company shares its director with 5 other listed companies, with the highest number of companies being 23. It also shows that a company is interlocked more with companies in a different industry (a mean of 4 companies are found for inter-industry

TABLE 1
Descriptive Statistics of Continuous Variables

Variables	Minimum	Maximum	Mean	Std. Dev
TOTALOCK	0	4.25	0.757	0.712
EXECLOCK	0	7	0.446	0.887
NONLOCK	0	8	0.587	1.053
INDLOCK	0	7	1.045	1.066
INTERLOCK	0	23	4.668	4.235
INTRA	0	7	1.078	1.448
INTER	0	22	3.579	3.534
DIROWN	0	0.992	0.365	0.243
BODIND	0.286	1	0.637	0.174
BODSIZE	3	17	7.522	2.006
GROWTH	-1	17.837	0.232	0.877
LSUBS	0	2.535	1.123	0.419
LAGE	0	1.663	0.988	0.366
LEVERAGE	0.001	0.985	0.398	0.210
ROA	-1.406	1.426	0.037	0.121
ROE	-7.751	2.271	0.045	0.381
AGE	1	46	13.472	11.030
SUBS	0	342	20.734	31.214

interlocking directorates, while a mean of 1 company for intra-industry interlocking directorates). Based on directors, on average, a director holds almost 1 additional directorship in other companies, whereby independent directors hold 1 additional directorship and executive directors only hold 0.44 additional directorships. This implies that interlocking directorates is more pronounced among independent directors than any other types of director and is more likely to incur between companies in different industries.

Related to board of directors, the average size is 8 members with the minimum being 3 and the maximum being 17 members. About 64 % of the directors are non-executive directors. On average, the directors also own

about 37 % of the shares of the companies. The average number of years a company has been listed on Bursa Malaysia is 13 and the average number of subsidiaries is 21 companies. The average value of leverage is 40 % and sales increase is by 23 %. Table 2 shows that 16 % of the sample companies (115 companies) have issued additional shares and acquire additional long-term liabilities, 73 % (539 companies) are listed on Main Board and 58 % (427 companies) have foreign subsidiary.

Univariate

Table 3 shows the univariate result by comparing the ROE and ROA between companies with interlocking directorates and companies without interlocking

TABLE 2
Descriptive Statistics of Dummy Variables

Variables	Variables	Number	Percentage
ISSUE	Issue	115	15.52
	No	626	84.48
BOARD	Main	539	72.74
	Second	202	27.26
FOREIGN	Yes	427	57.62
	No	314	42.38

TABLE 3
Univariate Result

	Panel A			Panel B		
	INTERLOCK (n=647)	Non-INTERLOCK (n=94)	t-test	EXECLOCK (n=268)	Non-EXECLOCK (n=473)	t-test
ROE						
Mean	0.050	0.006	-1.07	0.062	0.035	-0.95
Std dev	0.391	0.304		0.279	0.428	
ROA						
Mean	0.039	0.023	-1.26	0.044	0.034	-1.10
Std dev	0.123	0.100		0.130	0.115	

Continue:

	Panel C			Panel D		
	NONLOCK (n=287)	Non-NONLOCK (n=454)	t-test	INDLOCK (n=580)	Non-INDLOCK (n=161)	t-test
ROE						
Mean	0.039	0.048	0.32	0.061	-0.014	-2.22**
Std dev	0.517	0.261		0.221	0.700	
ROA						
Mean	0.042	0.034	-0.84	0.040	0.026	-1.32
Std dev	0.154	0.093		0.097	0.182	

Continue:

	Panel E			Panel F		
	INTER (n=606)	Non-INTER (n=135)	t-test	INTRA (n=385)	Non-INTRA (n=356)	t-test
ROE						
Mean	0.053	0.006	-1.32	0.065	0.024	-1.46
Std dev	0.402	0.263		0.247	0.486	
ROA						
Mean	0.042	0.018	-2.10**	0.042	0.032	-1.10
Std dev	0.126	0.092		0.124	0.117	

** significant at 5 % level (2-tailed)

directorates. In general, interlocking companies have a higher mean of ROE and ROA than non-interlocking companies, which suggests that interlocking companies have better earnings performance than non-interlocking companies. However, significant mean difference is only found between ROE by comparing companies with interlocking independent directors and companies without interlocking independent directors, which suggests that companies with interlocking independent directors have better earnings performance than companies without interlocking independent directors. A significant mean difference is also found between ROA by comparing companies with inter-industry interlocking and companies without inter-industry interlocking, which suggests that companies with inter-industry interlocking companies have better earnings performance than companies without inter-industry interlocking companies.

Correlation

Table 4 shows the correlation matrix among the variables. The table shows that ROE and ROA are significantly correlated with most of the explanatory variables. ROE is significant and positively correlated with INTERLOCK, INTER, TOTALOCK, INDLOCK, BOARD, FOREIGN, GROWTH, LSUBS, LAGE and significant and negatively related to LEVERAGE. ROA is significant and positively related to INTERLOCK, INTER, INTRA, TOTALOCK, EXECLOCK, INDLOCK, BOARD, FOREIGN, GROWTH, LSUBS and LAGE and significant and negatively

related to LEVERAGE. As expected, the correlations between hypotheses variables are significant and highly positively related. This supports the inclusion of the hypotheses variables separately, one after the other, into the multivariate regression. In addition, the correlations among other explanatory (control) variables are less than 0.5. While 0.8 is usually used as a threshold for possible multi-collinearity, it can be assumed that no serious collinearity exists.

OLS Regression

Table 5 shows the Ordinary Least Square (OLS) regression results of the ROE model and Table 6 shows the Ordinary Least Square (OLS) regression results of ROA model. Both tables show that all regression models are significant at 1 % significance level. The adjusted R-squared of ROE model is between 0.050 and 0.056, which is consistent with Phan *et al.* (2003). This suggests that the variation of return on equity that is explained by the models is about 5 to 6 %. Meanwhile, an adjusted R-squared of between 0.105 to 0.110 of ROA model is slightly higher than a prior study by Amran and Che Ahmad (2010) who had recorded an R-squared of 0.07. This suggests that the variation in return on asset that is explained by the models is about 11 %.

Both tables show that all the hypotheses variables are positively related to ROE and ROA. Table 5 shows that the variables INTERLOCK, INTER and INDLOCK are significant at a 5 % level and the variables INTRA and TOTALOCK are only marginally significant (at a 10 % level). However, the

TABLE 4
Pearson Correlation Matrix of Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1-ROE	1																		
2-ROA	0.84*	1																	
3-TOTALOCK	0.09**	0.12*	1																
4-EXECLOCK	0.05	0.08**	0.62*	1															
5-NONLOCK	0.02	0.06	0.50*	0.23*	1														
6-INDLOCK	0.09**	0.09**	0.75*	0.24*	0.11*	1													
7-INTERLOCK	0.09**	0.12*	0.84*	0.41*	0.39*	0.76*	1												
8-INTER	0.08**	0.11*	0.80*	0.39*	0.34*	0.73*	0.95*	1											
9-INTRA	0.07	0.08**	0.51*	0.25*	0.31*	0.44*	0.61*	0.32*	1										
10-ISSUE	0.065	0.07	0.01	0.01	-0.00	-0.00	0.01	0.01	0.00	1									
11-BOARD	0.104*	0.19*	0.20*	0.13*	0.07	0.16*	0.23*	0.23*	0.11*	0.03	1								
12-FOREIGN	0.09**	0.10*	0.11*	0.09**	0.04	0.09**	0.14*	0.14*	0.07**	0.13*	0.12*	1							
13-DIROWN	-0.00	-0.03	-0.19*	-0.05	-0.11*	-0.13*	-0.21*	-0.22*	-0.08**	0.08**	-0.07	0.05	1						
14-BODIND	-0.02	0.03	0.27*	0.16*	0.24*	0.13*	0.31*	0.30*	0.19*	-0.06	0.15*	0.01	-0.33*	1					
15-BODSIZE	0.03	0.06	-0.03	-0.06	0.04	0.05	0.27*	0.24*	0.19*	-0.02	0.17*	0.08**	0.04	0.03	1				
16-GROWTH	0.09**	0.12*	-0.03	0.01	-0.00	-0.03	-0.03	-0.02	-0.03	0.03	0.02	-0.02	-0.06	0.01	0.02	1			
17-LSUBS	0.09**	0.09**	0.22*	0.23*	0.15*	0.09**	0.24*	0.25*	0.08**	0.09**	0.26*	0.42*	-0.05	-0.02	0.12*	0.00	1		
18-LAGE	0.09**	0.10*	0.29*	0.25*	0.16*	0.18*	0.26*	0.28*	0.09**	-0.16*	0.21*	0.11*	-0.23*	0.25	0.01	0.02	0.25*	1	
19-LEVERAGE	-0.15*	-0.22*	-0.03	-0.03	-0.05	0.02	0.02	0.05	-0.04	0.07**	-0.11*	0.17*	-0.03	-0.10*	0.03	0.04	0.25*	-0.11*	1

TABLE 5
Ordinary Least Square (OLS) Regression Result of Return on Equity (ROE)

Variables	Panel A Coefficient (p-value)	Panel B Coefficient (p-value)	Panel C Coefficient (p-value)	Panel D Coefficient (p-value)	Panel E Coefficient (p-value)	Panel F Coefficient (p-value)	Panel G Coefficient (p-value)
Constant	0.059 (0.61)	0.055 (0.57)	0.051 (0.53)	0.047 (0.49)	0.095 (0.96)	0.089 (0.90)	0.065 (0.68)
ISSUE	0.067 (1.72)**	0.069 (1.77)**	0.069 (1.78)**	0.068 (1.74)**	0.066 (1.69)**	0.066 (1.70)**	0.068 (1.76)**
BOARD	0.038 (1.14)	0.043 (1.28)	0.043 (1.30)	0.035 (1.06)	0.037 (1.11)	0.038 (1.13)	0.042 (1.26)
FOREIGN	0.059 (1.92)**	0.060 (1.95)**	0.060 (1.95)**	0.057 (1.84)**	0.058 (1.87)**	0.059 (1.90)**	0.058 (1.89)**
DIROWN	-0.000 (-0.24)	-0.000 (-0.39)	-0.000 (-0.37)	-0.000 (-0.21)	-0.000 (-0.14)	-0.000 (-0.16)	-0.000 (-0.32)
BODIND	-0.166 (-1.90)**	-0.143 (-1.64)***	-0.139 (-1.58)***	-0.148 (-1.72)**	-0.180 (-2.04)**	-0.171 (-1.94)**	-0.159 (-1.83)**
BODSIZE	0.003 (0.44)	0.003 (0.36)	0.002 (0.33)	0.002 (0.26)	-0.001 (-0.18)	-0.000 (-0.06)	0.000 (0.05)
GROWTH	0.042 (2.72)*	0.041 (2.65)*	0.041 (2.65)*	0.043 (2.75)*	0.043 (2.76)*	0.043 (2.73)*	0.042 (2.70)*
LSUBS	0.045 (1.15)	0.052 (1.31)	0.055 (1.38)	0.056 (1.43)	0.045 (1.14)	0.046 (1.17)	0.052 (1.34)
LAGE	0.046 (1.09)	0.054 (1.28)	0.057 (1.36)	0.046 (1.10)	0.045 (1.08)	0.046 (1.08)	0.056 (1.34)
LEVERAGE	-0.326 (-4.70)*	-0.328 (4.71)*	-0.329 (-4.72)*	-0.336 (-4.83)*	-0.332 (-4.78)*	-0.334 (-4.81)*	-0.324 (-4.66)*
TOTALOCK	0.034 (1.62)***						
EXECLOCK	0.006 (0.37)						
NONLOCK	0.000 (0.00)						
INDLOCK	0.028 (2.11)**						
INTERLOCK	0.007 (1.97)**						
INTER	0.007 (1.69)**						
INTRA	0.015 (1.53)***						
Adjusted R-squared	0.054	0.050	0.050	0.056	0.055	0.054	0.053
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*, **, *** significant level at 1, 5, 10 % respectively (one-tailed)

TABLE 6
Ordinary Least Square (OLS) Regression Result of Return on Asset (ROA)

Variables	Panel A Coefficient (p-value)	Panel B Coefficient (p-value)	Panel C Coefficient (p-value)	Panel D Coefficient (p-value)	Panel E Coefficient (p-value)	Panel F Coefficient (p-value)	Panel G Coefficient (p-value)
Constant	0.027 (0.92)	0.027 (0.92)	0.026 (0.87)	0.023 (0.78)	0.037 (1.22)	0.036 (1.20)	0.027 (0.92)
ISSUE	0.022 (1.85)**	0.023 (1.91)**	0.023 (1.92)**	0.023 (1.90)**	0.022 (1.85)**	0.022 (1.85)**	0.023 (1.91)**
BOARD	0.031 (3.02)*	0.032 (3.18)*	0.033 (3.23)*	0.031 (3.00)*	0.031 (3.04)*	0.031 (3.04)*	0.032 (3.19)*
FOREIGN	0.022 (2.37)*	0.023 (2.42)*	0.023 (2.42)*	0.022 (2.31)**	0.022 (2.34)**	0.022 (2.36)*	0.022 (2.37)*
DIROWN	-0.000 (-0.73)	-0.000 (-0.95)	-0.000 (-0.89)	-0.000 (-0.76)	-0.000 (-0.68)	-0.000 (-0.67)	-0.000 (-0.87)
BODIND	-0.029 (-1.06)	-0.021 (-0.80)	-0.021 (-0.77)	-0.020 (-0.78)	-0.030 (-1.11)	-0.028 (-1.05)	-0.022 (-0.84)
BODSIZE	0.002 (1.17)	0.002 (1.11)	0.002 (1.01)	0.002 (0.97)	0.001 (0.51)	0.001 (0.59)	0.002 (0.82)
GROWTH	0.017 (3.57)*	0.017 (3.47)*	0.017 (3.48)*	0.017 (3.57)*	0.017 (3.58)*	0.017 (3.57)*	0.017 (3.52)*
LSUBS	0.014 (1.14)	0.015 (1.26)	0.017 (1.36)	0.018 (1.48)	0.015 (1.21)	0.015 (1.21)	0.017 (1.41)
LAGE	0.004 (0.29)	0.006 (0.46)	0.008 (0.59)	0.005 (0.39)	0.005 (0.36)	0.004 (0.33)	0.008 (0.61)
LEVERAGE	-0.144 (-6.74)*	-0.144 (-6.74)*	-0.144 (-6.73)*	-0.146 (-6.87)*	-0.146 (-6.83)*	-0.146 (-6.86)*	-0.144 (-6.72)*
TOTALOCK	0.013 (2.03)**						
EXECLOCK	0.005 (0.95)						
NONLOCK	0.002 (0.52)						
INDLOCK	0.008 (1.87)**						
INTERLOCK	0.002 (1.88)**						
INTER	0.002 (1.80)**						
INTRA	0.003 (1.08)						
Adjusted R-squared	0.110	0.106	0.105	0.109	0.109	0.109	0.106
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*, **, *** significant level at 1, 5, 10 % respectively (one-tailed)

variables EXECLOCK and NONLOCK are insignificant. Meanwhile, Table 6 shows that the variables INTERLOCK, INTER, TOTALOCK and INDLOCK are significant at a 5 % level but the variables INTRA, EXECLOCK and NONLOCK are insignificant.

The significant positive relationship of INTERLOCK is consistent with the resource dependence theory as proposed by Pfeffer and Salancik (1978), who argue that interlocking directorates occur for the inter-organisational coordination exchange of resources to overcome environmental uncertainty. The significant positive relationship of INTRA with ROE provides support for the postulation made by Phan *et al.* (2003) that intra-industry interlocking directorates are important for the coordination exchange of resources. Meanwhile, the significant positive relationships of INTER with ROE and ROA provide support that inter-industry interlocking directorates are important for a wide view of the business environment as suggested by Phan *et al.* (2003). Furthermore, the significant positive relationships of TOTALOCK and INDLOCK with ROE and ROA provide support for the argument by Fama and Jensen (1983) that holding multiple directorships increases directors' ability as monitors due to experience and knowledge gained by serving on the boards of multiple companies and increases directors' motivation to discharge their monitoring roles due to their concern about damage to their reputation.

The insignificant relationships between the variables, EXECLOCK and NONLOCK,

with two of the performance measures may be due to the possibility that these directors were appointed to sit on the boards of other companies due to their social group and thus, did not have any effect on the corporate performance as proposed by the class integration theory.

Related to the control variables, the variables BODIND and LEVERAGE are significant and negatively related to ROE, whilst ISSUE, GROWTH and FOREIGN are significant and positively related to ROE. Meanwhile, the variable LEVERAGE is significant and negatively related to ROA, whilst BOARD, ISSUE, GROWTH and FOREIGN are significant and positively related to ROA. This suggests that a higher proportion of non-executive directors on the board of directors and a higher proportion of total liability over total asset decrease corporate performance, while being listed on the Main Board, acquiring additional funds, seeing growth in sales and having a foreign subsidiary enhance corporate performance.

CONCLUSION

Earlier studies have shown mixed findings on the effect of interlocking directorates on corporate performance, which may possibly be due to the failure to recognise the nature and the direction of the interlocking directorates.

Using data of 741 listed companies on Bursa Malaysia in 2007, it is found that the number of interlocking companies, inter-industry interlocking directorates, multiple directorships and multiple directorships of independent directors have a positive effect

on corporate performance. The findings support the resource dependence theory that interlocking directorates are beneficial in overcoming environmental uncertainty and as well as the argument that inter-industry interlocking directorates are important for a wide view of the business environment. The findings are also consistent with the argument that holding multiple directorships enhances directors' expertise and increases their motivation in discharging their roles. However, it is also found that multiple directorships by executive and non-executive non-independent directors do not have any effect on corporate performance, which is found consistent with the class integration theory. This is due to the possibility that these directors were appointed to sit on the boards of other companies based on their social group (consistent with the nature of their directorships) and therefore, do not have any effect on corporate performance. On the other hand, the argument of limitation of time and increased commitment due to holding multiple directorships as proposed in the corporate governance theory seems to be irrelevant, due to the restriction of directorships mandated in Malaysia.

Despite the negative perception of interlocking directorates by the public, the results suggest that interlocking directorates actually benefit shareholders by enhancing the performance of the corporation. The results also add to the growing body of literature on interlocking directorates and corporate performance. For future studies, it is recommended to consider using a wider data set or perhaps using a different data set.

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