# The Relation between Inside Director's Dual Role and Firm's Future Performance: Evidence from Publicly-Traded Company in Taiwan

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***Abstract*—**Inside directors carry two roles of both directors and managers. Therein, the responsibility of director role of inside directors is to execute supervision function; and that the managerial role is to execute policy-making function. In some cases, the dual role of inside directors will generate competition and cooperation. Therefore, this paper uses the companies listed in the Taiwan Stock Exchange and OTC stock exchange to investigate the relation between inside director's dual role and firm's future performance. The empirical results show that the inside director's managerial role is significantly positive with firm's future performance. This indicates that the greater the deviation extent of controlling rights and cash flow rights, the higher will be the shareholding ratio of inside directors; and the higher the salary of inside directors in managerial role, the better will be the firm performance. However, the inside director's director role is no significantly positive with firm's future performance. In addition, the result of using non-electronics industry as the sample is consistent with that of using all observations. To sum up, the results of this study can complement the existing literature and provide implications for companies in Taiwan.

***Keywords*—**Future Performance; Inside Director; Inside Director's Director Role; Inside Director's Managerial Role.

***Abbreviations*—**The Ultimate Owners' Deviation of Control Rights over Cash Flow Right (DEV); Fraction of Outstanding Shares held by Insider Directors (IDH); Over the Counter (OTC); Net Income Before Tax, Interest and Depreciation Divided by Total Assets (ROA); Taiwan Economic Journal Database (TEJ)

## I. INTRODUCTION

LITERATURES have indicated that, in addition to independent directors, the existence of inside directors can help lighten agency problems as they can share private information with other members of the Board of Directors [Fama & Jensen, 1983; Raheja, 2005; Laux, 2006; Adams & Ferreira, 2007; Drymiotes, 2007]. Inside directors carry two roles of both directors and managers. Therein, the responsibility of director role of inside directors is to execute supervision function; and that the managerial role is to execute policy-making function. In some cases, the dual role of inside directors will generate competition and cooperation. For example, the director role of inside directors is used to supervise the strategic execution performances of managerial role. Therefore, the relation between the dual role of inside directors and the firm's future performance is worth investigating.

Theoretical speaking, the equity of a public company should be dispersed, but it is not so practically. Based on the determination of the largest shareholder holding of more than 20% voting rights, the study done by La Porta et al., (1999) on 27 large enterprises in affluent countries worldwide found the existence of controlling shareholders in about 64% of the companies, and that Claessens et al., (2000) asserted the existence of controlling shareholders in 57% of the companies from nine countries in East Asia. While taking Taiwan companies as the research samples, Yeh et al., (2003) found the existence of controlling shareholders in about 64% of the companies. As the shareholding structure in Taiwan is dominated by high proportion of controlling shareholders, there is a risk of Taiwan enterprises with controlling shareholders to expropriate the minority shareholders' equity. However, studies have pointed that in Asian countries such as Hong Kong, Indonesia and South Korea, the higher the shareholding ratio of controlling shareholders, the poorer is the firm performance. In Taiwan, however, there is no

significant deterioration of company performance in the case of higher shareholding ratio of controlling shareholders [Claessens et al., 2002]. Hence, the reasons of non-significant deterioration of firm performance are worth studying. There is another feature that the controlling shareholders of Taiwan enterprises can access their self-equity through the operation of the Board of Directors [Yeh et al., 2003]. It is an advantage for Taiwan's inside directors to share private information through the Board of Directors as this will allow the information of directors to be more transparent, thereby reducing the possibility of controlling shareholders from expropriating the minority shareholders' equity. So Taiwan listed companies were taken as the research samples by this study to investigate whether or not the ability of existed Taiwan's inside directors to share private information through board meetings to reduce the agency problems of controlling shareholders from infringing the minority shareholders' equity, and thereby enhancing the firm's future performance.

There were different views on past studies on the supervision role of inside directors. For example, the existence of inside directors in the Board of Directors may interfere with the supervision function of the Board of Directors due to the dual role of both directors and managers of inside directors [Hermalin & Weisbach, 2003]. However, other studies argued that as compared to outsiders, inside directors can access some private information on efforts done by managers at a lower cost as they have actually involved in the company affairs [Almazan & Suarez, 2003; Raheja, 2005; Laux, 2006; Adams & Ferreira, 2007; Drymiotes, 2007]. This will help them to make more accurate decisions as the information cannot be easily blinded by the managers. Hence, supervision is effective to enhance the company performance. So, whether or not the supervision function represented by the director role of Taiwan's inside directors to enhance the firm's future performance is the first research issue of this study.

In addition, as each inside director holds his/her own private information, so there is the existence of countercheck among the inside directors to reduce the possibility of inside directors from enriching themselves [Almazan & Suarez, 2003; Raheja, 2005; Laux, 2006; Adams & Ferreira, 2007; Drymiotes, 2007]. So while inside directors are executing strategic function represented by managerial role, they are able to throw in more efforts and execute correct resolutions due to less opportunity for information from being blinded. So, whether or not the ability for strategic execution function of inside directors represented by managerial role to enhance the firm's future performance is the second issue of this study.

There are the availability of controlling shareholders on more than half of Asian companies with public offerings [Claessens et al., 2000], and their existence is likely to infringe the minority shareholders' equity due to their advantageous stockholding status. Studies have indicated that in most Asian countries, the higher the shareholding ratio of controlling shareholders, the poorer is the firm performance. In Taiwan, however, the higher the shareholding ratio of controlling shareholders, there is however, no significant deterioration of firm performance [Claessens et al., 2002]. Therefore, the reasons of non-significant deterioration of corporate performance in Taiwan are worth reviewing. There is another feature that the controlling shareholders of Taiwan enterprises can access their self-equity through the operation of the Board of Directors [Yeh et al., 2003]. It is an advantage for Taiwan's inside directors to share private information through the Board of Directors as this will allow the information of directors to be more transparent, thereby reducing the possibility of controlling shareholders from expropriating the minority shareholders' equity. Therefore, Taiwan's listed companies were taken as the research samples by this study to explore whether or not Taiwan's inside directors are able enhance the firm's future performance through private information sharing. The first contribution of this study will serve as a reference for Asian countries.

Another research contribution of this study is that the empirical results can be used as a reference for Remuneration Committee to issue salaries for inside directors. In other words, if the empirical results support the fact that the salaries of inside directors in director role are positively associated with the company's future performance, then, before deciding the salaries of inside directors, the Remuneration Committee may consider to pay more to the director role. On the contrary, if the empirical results support the fact that the salaries of inside directors in managerial role are positively correlated with the company's future performance, then, before deciding the salaries of inside directors, the Remuneration Committee may consider to pay more to the managerial role.

The organization of this research is as follows: section 2 presents literature review and hypotheses of this study. Section 3 discusses the data and methodology. Section 4 provides sample selection, descriptive analyses and empirical results. The conclusions are presented in section 5.

## II. Literature Review and Hypothesis Developments

Inside directors possess inside information for sharing with other board members to help board monitoring [Fama & Jensen, 1983; Raheja, 2005; Laux, 2006; Adams & Ferreira, 2007]. For example, Drymiotes (2007) shows that boards with inside directors to supply information of the agent's productivity may have incentives to monitor the agents ex post, which allows the boards to indirectly commit to do monitoring. In addition, Mace (1986) reports that outside directors frequently use insiders as a source of information in a survey study.

To sum up, as compared to outsiders, inside directors can access some private information on efforts done by managers at a lower cost as they have actually involved in the company affairs. This will allow them to make more accurate decisions

as the information cannot be easily blinded by the managers. Hence, the supervision function of inside directors is beneficially [Almazan & Suarez 2003; Raheja 2005; Laux 2006; Adams & Ferreira, 2007; Drymiotes, 2007]. Based on private information perspective, as inside directors have actually involved in company affairs, they can make accurate determination on how much efforts the managers have done in their post-performances from pre-performances. This serves to reduce the efforts disguised by the managers. Hence, the supervision function of inside directors in director role is helpful to enhance the company's operating performance [Drymiotes, 2007]. Based on this, the study has established Hypothesis 1 as follow:

**Hypothesis 1: The supervision function of inside director's director role is positively associated with the firm's future performance.**

On the other hand, as each inside director holds his/her own private information, so there is the existence of countercheck among the inside directors to reduce the possibility of inside directors from enriching themselves [Almazan & Suarez, 2003; Raheja, 2005; Laux, 2006; Adams & Ferreira, 2007; Drymiotes, 2007). So while the inside directors are executing the strategic function represented by managerial role, they are able to throw in more efforts and execute correct resolutions due to less opportunity for information from being blinded [Prendergast, 2000]. Based on this, the study has established Hypothesis 2 as follow

**Hypothesis 2: The strategic execution function of inside director's managerial role is positively associated with the firm's future performance.**

## III. RESEARCH METHOD

### *3.1. Sample*

A number of companies in Taiwan have applied the new method for the declaration of the director's compensation during the tax declaration in 2005. The new method provides the total amount of compensation. It does not list the details of director role salary, manager role salary, bonus, transportation reimbursement, and other compensations. Compensations of inside director for each role are therefore not available and I have therefore included listed companies from 2002 to 2004 as my research samples.

The sample details are shown in table 1. Initially I obtain 3,349 observations from Taiwan Economic Journal database (TEJ). I then delete 639 observations that have no inside directors. I also delete 1,012 observations that have missing data for compensation of inside directors, or other variables. I also require the compensation of inside director's director role and manager role. This procedure further excludes 188 observations. Thus, I end up with 1,510 observations with complete data. Amongst, 392 observations were from year 2002, 486 observations from year 2003, and 632 observations from 2004.

Table 1: Sample Collection

| | **2002** | **2003** | **2004** | **Total** |
|---|---|---|---|---|
| Initial firm-year cases (number of listed companies at the end of 2002, 2003, and 2004) | 1,065 | 1,111 | 1,173 | 3,349 |
| Step 1: Less companies without inside directors | (235) | (226) | (178) | (639) |
| Step 2: Less companies with missing data | | | | |
| -Without compensation of inside directors | (92) | (85) | (71) | (248) |
| -Missing data apart from standard deviation of ROA | (58) | (53) | (47) | (158) |
| -Unable to calculate standard deviation of ROA | (215) | (208) | (183) | (606) |
| Step 3: Less companies that are unable to identify compensations as director role or manager role | (73) | (53) | (62) | (188) |
| Firm-year cases used in the study | 392 | 486 | 632 | 1,510 |
| Proportion of final observations (%) | 37% | 44% | 53% | 46% |

### *3.2. Variables*

#### *3.2.1. Dependent Variable*

Consistent with prior studies, I use ROA to proxy for firm's future performance. ROA is defined as net income before tax, interest and depreciation divided by total assets.

#### *3.2.2. Independent Variable*

*A. Supervision Function of Inside Director's Director Role*

The supervision strength of inside directors represented by director role is determined by three factors: (1). In the event of greater deviation extent of controlling rights and cash flow rights, the governance mechanism of the said company will tend to be weaker as the controlling shareholders only need to bear part of the responsibility for any company's losses and expenditures [Haid & Yurtoglu, 2006; Barontini & Bozzi, 2011]. This will result in less effective firm's management and prompt the shareholders to establish a reward system more beneficial to them than to the company. So a countercheck effect on private information is much needed in the event of greater deviation extent of controlling rights and cash flow rights. In other words, in the occurrence of a greater deviation extent on controlling rights and cash flow rights, the supervision function of inside directors in director role will become vital due to the generation of private information. (2). However, an incentive motivation is needed to allow insiders from disclosing private information willingly, and the most direct incentive motivation is determined by how much eventual benefits can insiders enjoy. So, even if inside directors have owned higher shareholding ratio, it does not necessary mean that they will ask for huge private benefits as they can still enjoy lots of interests through shared benefits. This will prompt inside directors to have a keener motivation to execute the supervision function. Hence, the higher the shareholding ratio

of inside directors, the stronger will be the contiguity between the company benefits and director benefits, and the stronger will be the supervision function of inside directors in director role. (3). Based on agency theory, the higher the salaries, the greater efforts will the staff engage in their jobs. So, the supervision function of inside director's director role can be encouraged by paying more to inside directors in director role. Summarizing the aforesaid discussion, the ultimate owners' deviation of control rights over cash flow right (DEV) *fraction of outstanding shares held by insider directors (IDH) * the proportion of inside director's compensation for director role (BS) were used by this study to serve as the proxy variable, known as MO by this paper on the supervision function of inside director's director role. Should Hypothesis 1 established, the estimated coefficient of MO will be significantly positive.

### *B. Strategic Execution Function of Inside Director's Managerial Role*

Based on the aforesaid statement, the strategic execution strength of inside directors can be determined by the following three factors: (1). In the event of greater deviation extent of controlling rights and cash flow rights, the governance mechanism of the said company will tend to be weaker as the controlling shareholders only need to bear part of the responsibility for any company's losses and expenditures to result in less effective firm's management [Haid & Yurtoglu, 2006; Barontini & Bozzi, 2011]. So a countercheck effect on private information is much needed in the event of greater deviation extent of controlling rights and cash flow rights. Then, the countercheck mechanism generated by private information sharing of inside directors will reduce high level managers from deceiving shareholders and prevent the directors from having the opportunity to execute correct resolutions. At such, the strategic execution function of inside director's managerial role will become vital. (2). However, an incentive motivation is needed to allow insiders from disclosing private information willingly, and the most direct incentive motivation is increase the eventual benefits of insiders. So, even if inside directors have owned higher shareholding ratio, it does not necessary mean that they will ask for huge private benefits as they can still enjoy lots of interests through shared benefits. This will prompt inside directors to have a keener motivation to execute the supervision function, and further generate a countercheck mechanism to allow high level managers, including inside directors in managerial role to execute resolutions in shareholder and director meetings more diligently.(3).The strategic execution function of inside director's managerial role can be encouraged through paying more to manager role. Summarizing the aforesaid discussion, the ultimate owners' deviation of control rights over cash flow right (DEV) * fraction of outstanding shares held by insider directors (IDH) * the proportion of inside director's compensation for managerial role (MS) were used by this study to serve as the proxy variable, known as MA by this paper of strategic execution function of inside director's managerial role. Should Hypothesis 2 established, the estimated coefficient of MO will be significantly positive.

The ultimate owners' deviation of control rights over cash flow right (DEV), the proportion of inside director's compensation for managerial role (MS) and the proportion of inside director's compensation for director role (MS) are defined as below. The ultimate owners' deviation of control rights over cash flow right (DEV) are measured as the ratio of control right to cash flow right, where the control (voting) right is computed as the sum of the minimum ownership in each "control chain" of the ownership structure in order to determine the lowest voting rights of the controlling shareholders; and cash flow right is measured as the ratio of shares owned by the ultimate shareholders to total shares [La Porta et al., 1999; Claessens et al., 1999; Tsai et al., 2003]. The proportion of inside director's compensation for managerial role (MS) is defined as: inside director's compensation for managerial role divided by compensation of inside director. The proportion of inside director's compensation for director role (BS) is defined as: inside director's compensation for director role divided by compensation of inside director. Listed companies would usually provide: (1) director compensation, (2) salary/bonus, (3) transportation reimbursement for director and (4) other compensations on the annual financial report. I define that inside director's compensation for manager role is a sum of (2) salary/bonus and (4) other compensations. On the other hand, the inside director's compensation for director role is a sum of (1) director compensation and (3) transportation reimbursement for director. In addition, the compensation for manager role and director role may be non-linearity [Bushman et al., 1996], and I take natural log of MS and BS for analysis [Murphy, 1985; Sloan, 1993; Anderson et al., 1999; Hung & Wang, 2008].

#### *3.2.3. Control Variable*

Larcker et al., (2007) have reviewed various literatures regarding corporate governance and have identified 39 variables related to corporate governance. A total of 3 variables of Larcker et al., (2007) are used as control variables in this research because of missing data from TEJ or multicollinearity. These 3 control variables are: number of directors serving on the board (Size), CEO duality (CM), number of share holders with more than 5% of stock (Block).

Following Fama & Jensen (1983), Schellenger et al., (1989), Agrawal & Mandelker (1990), Baysinger & Hoskisson (1990), Mallette & Fowler (1992), Pearce & Zahra (1992), Daily & Johnson (1997) and Yeh et al., (2001), I add 2 control variables to my paper. They are: ratio of outside directors (Outsider) and sub-major shareholders (OB). Sub-major shareholders (OB) is a dummy variable taking the value one when major shareholders among the top 10 major shareholders who are from different groups, zero otherwise

Finally, consistent with prior studies, I also add D, YEAR1, YEAR2 and Industry to control for trading type, firm-year and the expenditure of employee bonus shares.

### *3.3. Regression Model*

#### *3.3.1. Hypothesis 1*

Model 1 is used to test H1. H1 proposed that the supervision function of inside director's director role is positively associated with the firm's future performance. There is a temporal difference in the influence of financial and market performance index on the future financial performance [Dechow & Sloan, 1991; Kaplan & Norton, 1992; Bushman et al., 1996; Hayes & Schaefer, 2000; Tsai, 2003]. As a result, I use $ROA_{t+2}$ (ROA of the 2nd coming year) as the proxy for the firm's future performance. I regress $ROA_{t+2}$ on MO. H1 can be supported, if coefficient of MO is significantly positive.

$$ROA_{t+2} = f(MO_t, Size_t, CM_t, Block_t, OB_t, Outsider_t, D_t, YEAR1_t, YEAR2_t, Industry_t) \quad (1)$$

Where

ROA: Net income before tax, interest and depreciation divided by total assets.

MO: The supervision function of inside director's director role.

Size: The number of directors serving on the board.

CM: The dummy variable equal to 1 if CEO duality exists; and 0 otherwise.

Block: The number of share holders with more than 5% of stock.

OB: The dummy variable equal to 1 if sub-major shareholders exists; and 0 otherwise.

Outsider: The ratio of outside directors.

D: The dummy variable equal to 1 if the company is OTC firm; and 0 otherwise.

Year1: The dummy variable equal to 1 if firm-year is 2003, and 0 otherwise.

Year2: The dummy variable equal to 1 if firm-year is 2004, and 0 otherwise.

Industry: The dummy variable equal to 1 if the company is in electronics industry, and 0 otherwise.

#### *3.3.2. Hypothesis 2*

I use Model 2 to examine H2. H2 proposed that the strategic execution function of inside director's managerial role is positively associated with the firm's future performance. I regress ROAt+2 on MA. H2 can be supported, if coefficient of MA is significantly positive.

$$ROA_{t+2} = f(MA_t, Size_t, CM_t, Block_t, OB_t, Outsider_t, D_t, YEAR1_t, YEAR2_t, Industry_t) \quad (2)$$

MA: The strategic execution function of inside director's managerial role.

The definition of other variables refers to model 1.

## IV. EMPIRICAL RESULTS

### *4.1. Descriptive Statistics and Correlation Analyses*

Table 2 reports descriptive statistics of variables. With regards to the independent variable - the supervision function of inside director's director role (MO) and the strategic execution function of inside director's managerial role (MA), the mean value is approximately 106, and 40. In addition, the standard deviation of MO is larger than that of MA. Tables 3 reports the Pearson product-moment correlation.

Table 2: Descriptive Statistics (N=1510)

| Variable | Mean | Median | StdDev | Minimum | Maximum |
|---|---|---|---|---|---|
| ROA | 8.52 | 8.24 | 9.46 | -87.8 | 47.54 |
| MO | 105.73 | 9.00 | 296.3 | 0 | 2393.401 |
| MA | 40.132 | 1.86 | 175.2 | 0 | 2263.47 |
| Size | 7.21 | 7 | 3.21 | 3 | 27 |
| CM | 0.33 | 0 | 0.47 | 0 | 1 |
| Block | 2.15 | 2 | 1.57 | 0 | 9 |
| OB | 0.37 | 0 | 0.48 | 0 | 1 |
| Outsider | 0.12 | 0.10 | 0.09 | 0 | 0.52 |
| D | 0.20 | 0 | 0.40 | 0 | 1 |
| Year1 | 0.32 | 0 | 0.46 | 0 | 1 |
| Year2 | 0.41 | 0 | 0.49 | 0 | 1 |
| Industry | 0.24 | 0 | 0.42 | 0 | 1 |

ROA: Net income before tax, interest and depreciation divided by total assets. MO: The supervision function of inside director's director role. MA: The strategic execution function of inside director's managerial role. Size: The number of directors serving on the board. CM: The dummy variable equal to 1 if CEO duality exists; and 0 otherwise. Block: The number of share holders with more than 5% of stock. OB: The dummy variable equal to 1 if sub-major shareholders exists; and 0 otherwise. Outsider: The ratio of outside directors. D: The dummy variable equal to 1 if the company is OTC firm; and 0 otherwise. Year1: The dummy variable equal to 1 if firm-year is 2003, and 0 otherwise. Year2: The dummy variable equal to 1 if firm-year is 2004, and 0 otherwise. Industry: The dummy variable equal to 1 if the company is in electronics industry, and 0 otherwise.

Table 3: Correlation Matrix (N=1510)

| | ROA | MO | MA | Size | CM | Block | OB | Outsider | D | Year1 | Year2 | industry |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ROA** | 1 | | | | | | | | | | | |
| **MO** | .062* | 1 | | | | | | | | | | |
| **MA** | .047 | .104** | 1 | | | | | | | | | |
| **Size** | .048 | .115** | .049 | 1 | | | | | | | | |
| **CM** | .028 | -.110** | -.057* | -.219** | 1 | | | | | | | |
| **Block** | .107** | .041 | -.002 | -.124** | -.005 | 1 | | | | | | |
| **OB** | .117** | .025 | .041 | .156** | -.001 | -.143** | 1 | | | | | |
| **Outsider** | .063* | .108** | .054* | .119** | -.002 | .093** | .306** | 1 | | | | |
| **D** | -.126** | -.027 | -.005 | -.110** | .050 | .023 | -.084** | .140** | 1 | | | |
| **Year1** | -.050 | -.014 | -0.29 | -.012 | .014 | .024 | .062* | .049 | -.006 | 1 | | |
| **Year2** | .033 | .036 | -.046 | -.006 | -.006 | .006 | -.014 | .005 | .081** | -.584** | 1 | |
| **Industry** | .033 | -.047 | -.026 | -.115** | .125** | -.149** | .101** | -.044 | -.278** | .017 | -.035 | 1 |

1. All variables are as defined in table 2.

2. **, * indicates significance at the 1 percent and 5 percent levels, respectively.

  

### *4.2. Regression Analyses*

The empirical results of Model 1 and Model 2 are listed in Table 4. Firstly, from the values shown in Table 4, we find that the estimated coefficient of supervision function of inside director's director role (MO) is 0.002, and t value is 1.44. It shows no significantly positive correlation and so does not support Hypothesis 1. This indicates that the greater the deviation extent of controlling rights and cash flow rights, the higher will be the shareholding ratio of inside directors; and despite higher salaries for inside directors in director role, there is no significant improvement in firm performance. The deductive reasons why this study does not support Hypothesis 1 is that the larger deviation extent of controlling rights and cash flow rights is a weak performance done by a company with governance mechanism as the shareholders only have to bear a small portion of company's any losses and expenditures. This will result in less effective company's operation [Haid & Yurtoglu, 2006; Barontini & Bozzi, 2011]. At such, the company needs a more effective supervision mechanism to strengthen the effectiveness of the company governance mechanism. In other words, it needs more private information sharing to countercheck the agency problems generated by deviation extent. However, if the supervision function of inside directors is unable to compensate the agency problems generated by deviation extent of controlling rights and cash flow rights, it will agree with the empirical results done by this study, i.e. positive coefficient of supervision function of inside director's director role (MO), but is non-statistically significant.

In addition, the coefficient of strategic execution function of inside director's managerial role (MA) is 0.002, and t value is 2.18. It shows significantly positive correlation and supports Hypothesis 2. This indicates that the greater the deviation extent of controlling rights and cash flow rights, the higher will be the shareholding ratio of inside directors; and the higher the salary of inside directors in managerial role, the better will be the company performance. In other words, the empirical results of this study support "the strategic execution function of inside director's managerial role is positively associated with the firm's future performance."

Table 4: Regression Statistics for $ROA_{t+2}$ (N=1510)

| | **H1** | **H2** |
|---|---|---|
| **Variable** | **Parameter Estimate** | **Parameter Estimate** |
| **$MO_t$** | 0.002<br>(1.44) | |
| **$MA_t$** | | 0.002<br>(2.18)* |
| **Size $_t$** | 0.095<br>(1.17) | 0.103<br>(1.28) |
| **$CM_t$** | 0.789<br>(1.48) | 0.749<br>(1.41) |
| **$Block_t$** | 0.782<br>(4.87)*** | 0.794<br>(4.95)*** |
| **$OB_t$** | 2.278<br>(4.15)*** | 2.242<br>(4.08)*** |
| **$Outsider_t$** | 2.814<br>(1.00) | 3.118<br>(1.11) |
| **$D_t$** | -2.914<br>(-4.47)*** | -2.953<br>(-4.53)*** |
| **$YEAR1_t$** | -0.960<br>(-1.50) | -0.953<br>(-1.49) |
| **$YEAR2_t$** | 0.345<br>(0.57) | 0.424<br>(0.70) |
| **$Industry_t$** | 0.139<br>(0.23) | 0.136<br>(0.22) |
| **Adj$R^2$** | 0.048 | 0.048 |
| **FValue** | 8.37 | 8.32 |

1. All variables are as defined in table 2.
2. ***, ** and * indicates significance at the 1 percent, 5 percent and 10 percent levels, respectively.

### *4.3. Additional Analyses*

I report the empirical results of additional analyses in table 5 and table 6. The additional analyses of this research focuses on 2 issues. There is a temporal difference in the influence of financial and market performance index on the future financial performance [Dechow & Sloan, 1991; Kaplan & Norton, 1992; Bushman et al., 1996; Hayes & Schaefer, 2000; Tsai, 2003]. As a result, in my regression analyses, I use $ROA_{t+2}$ to proxy for the firm's future performance. However, in additional analyses, I have replace the proxy for the firm's future performance from $ROA_{t+2}$ (ROA of the 2nd coming year) to $ROA_{t+1}$ (ROA of the next year). In the second test, the financial reports included in my paper only report the compensation in cash and not stocks. The Industrial Bank of Taiwan has nevertheless argued that the value of bonus provided to employees in the non-electronics industry is only 2.24% of the net profit after tax. We can therefore anticipate that the stock bonus of employees in the non-electronics industry is of minor proportion and bonus in cash can be used to represent the total value of bonus provided. I have therefore included non-electronics industry in this part of the additional analyses and examine if the results of my "regression analyses" is applicable.

#### *4.3.1. Using $ROA_{t+1}$ as a Proxy for Firm's Future Performance*

The empirical results are summarized in table 5. The results of using $ROA_{t+1}$ as a proxy for firm's future performance is different from that using $ROA_{t+2}$. Therefore there is lag in the influence of financial and market performance index on the future financial performance, or perhaps the inside directors focus only on the performance of the next 2 year.

#### *4.3.2. Using Non-Electronics Industry as the Sample*

I can conclude from table 6 that the result of using non-electronics industry as the sample is consistent with that of using all observations. In other words, the empirical result of "regression analyses" is applicable.

  

Table 5: Regression Statistics for $ROA_{t+1}$ (N=1510)

| | H1 | H2 |
|---|---|---|
| **Variable** | **Parameter Estimate** | **Parameter Estimate** |
| **$MO_t$** | 0.001<br>(0.62) | |
| **$MA_t$** | | 0.001<br>(1.56) |
| **Size $_t$** | 0.001<br>(1.99)** | 0.001<br>(2.01)** |
| **$CM_t$** | 0.004<br>(0.87) | 0.004<br>(0.89) |
| **$Block_t$** | 0.008<br>(5.19)*** | 0.008<br>(5.23)*** |
| **$OB_t$** | 0.017<br>(3.28)*** | 0.017<br>(3.23)*** |
| **$Outsider_t$** | 0.059<br>(2.18)** | 0.059<br>(2.19)** |
| **$D_t$** | -0.028<br>(-4.61)*** | -0.029<br>(-4.64)*** |
| **$YEAR1_t$** | 0.008<br>(1.45) | 0.008<br>(1.46) |
| **$YEAR2_t$** | 0.002<br>(0.46) | 0.003<br>(0.55) |
| **$Industry_t$** | 0.001<br>(0.26) | 0.001<br>(0.27) |
| **$AdjR^2$** | 0.049 | 0.051 |
| **F Value** | 8.66 | 8.88 |

1. All variables are as defined in table 2.
2. ***, **and * indicates significance at the 1 percent, 5 percent and 10 percent levels, respectively.

Table 6: Regression Statistics for using Non-Electronics Industry as the Sample (N=1116)

| | H1 | H2 |
|---|---|---|
| **Variable** | **Parameter Estimate** | **Parameter Estimate** |
| **$MO_t$** | 0.002<br>(0.86) | |
| **$MA_t$** | | 0.001<br>(2.67) *** |
| **Size $_t$** | 0.062<br>(0.74) | 0.077<br>(0.92) |
| **$CM_t$** | 0.112<br>(0.18) | 0.022<br>(0.04) |
| **$Block_t$** | 0.589<br>(3.36)*** | 0.617<br>(3.52)*** |
| **$OB_t$** | 2.557<br>(4.05)*** | 2.575<br>(4.07)*** |
| **$Outsider_t$** | -0.198<br>(-0.06) | 0.579<br>(0.19) |
| **$D_t$** | -2.722<br>(-4.15)*** | -2.786<br>(-4.24)*** |
| **$YEAR1_t$** | -1.116<br>(-1.51) | -1.084<br>(-1.47) |
| **$YEAR2_t$** | 0.037<br>(0.05) | 0.153<br>(0.22) |
| **$AdjR^2$** | 0.0489 | 0.0434 |
| **FVlue** | 7.37 | 6.62 |

1. All variables are as defined in table 2.
2. ***, ** and * indicates significance at the 1 percent, 5 percent and 10 percent levels, respectively.

## V. CONCLUSIONS

This study investigates the relation between inside director's dual role and firm's future performance. The results of this research consist of 3 parts, the first part is the empirical analyses of 2 hypotheses in "regression analyses" section and the remaining 2 parts are "additional analyses". In "regression analyses" section, I use $ROA_{t+2}$ as a proxy for firm's future performance and the first additional analysis uses $ROA_{t+1}$ as a proxy for firm's future performance. In the second analysis, the value of bonus provided to employees in the non-electronics industry is only 2.24% of the net profit after tax and I can therefore anticipate that the stock bonus of employees in the non-electronics industry is of minor proportion and compensation in cash can be used to represent the total amount of compensation provided. I have therefore only use non-electronics industry as observations in this part.

There is lag in the influence of financial and market performance index on the future financial performance, or perhaps the inside directors focus only on the performance of the next 2 year. Therefore, the estimated coefficient of supervision function of inside director's director role (MO) is 0.002, and t value is 1.44. It shows no significantly positive correlation and so does not support Hypothesis 1. In addition, the coefficient of strategic execution function of inside director's managerial role (MA) is 0.002, and t value is 2.18. It shows significantly positive correlation and supports Hypothesis 2. This indicates that the greater the deviation extent of controlling rights and cash flow rights, the higher will be the shareholding ratio of inside directors; and the higher the salary of inside directors in managerial role, the better will be the company performance. In other words, the empirical results of this study support H2-the strategic execution function of inside director's managerial role is positively associated with the firm's future performance.

However, the results of using $ROA_{t+1}$ as a proxy for firm's future performance is different from that using $ROA_{t+2}$. Therefore there is lag in the influence of financial and market performance index on the future financial performance. On the other hand, the result of using non-electronics industry as the sample is consistent with that of using all observations. Then, the empirical result of "regression analyses" is applicable.

To sum up, based on the empirical results of this study by using listed companies in Taiwan as the samples, it shows that an enhance in strategic execution function of inside directors in managerial role is able to improve the firm performance, and that there is also an exact existence of supervision function of director role, but its effectiveness has yet to achieve statistically significant level. In other words, for Asian countries with the existence of controlling shareholders, correct self-execution of resolutions through countercheck mechanism generated by private information sharing of inside directors to allow high level managers, including inside directors in managerial role is even more effective than using the supervision function of Board of Directors to supervise and control the shareholders'

behaviors. This indicates that more efforts are needed for Asian countries to enhance the company's governance mechanism.

Finally, the empirical results of this study can also be used as a reference by the Remuneration Committee to issue salaries for inside directors as they confirm that the higher the deviation extent of controlling rights and cash flow rights, the greater will be the total shareholding ratio of inside directors, and the better will be the company performance. Therefore, in the event of high deviation extent of controlling rights and cash flow rights, and a high total shareholding ratio of inside directors, the company should offer higher salaries to inside directors in managerial role. This is because there is an existence of countercheck mechanism among the inside directors as each of them holds his/her own private information. Such countercheck function among the inside directors may lower the possibility of inside directors from enriching themselves [Almazan & Suarez, 2003; Raheja, 2005; Laux, 2006; Adams & Ferreira, 2007; Drymiotes, 2007]. Hence, while inside directors are executing strategic function represented by managerial role, they tend to throw in more efforts and make correct execution resolutions due to less chance of being deceived, thereby enhancing the firm performance [Prendergast, 2000].

I propose 2 recommendations for future researches: (1) Future researchers can investigate the intermediary effect of other factors between the inside director's dual role and firm's future performance. (2) Stock compensation was not revealed in my research period and future researchers may choose to repeat this research after calculating the stock compensation by them.

My research comes with 2 limitations: (1)The compensation of inside director is obtained from the data of the annual report and I am unable to determine if there is a difference between the actual compensation provided and the compensation reported on the annual report. (2) Stock compensations are not revealed in this research period, and the compensation of inside director defined in this research focuses only on the compensations reported on the annual reports which do not include stock compensations. However, the second additional analysis of this paper uses only non-electronics industry that has a small share of stock compensation to examine if using only cash compensation as the proxy for the actual compensation received is applicable.

## REFERENCES


[1] E. Fama & M. Jensen (1983), "Separation of Ownership and Control", *Journal of Law and Economics*, Vol. 26, No. 2, Pp. 301–325.

[2] K.J. Murphy (1985), "Corporate Performance and Managerial Remuneration: An Empirical Analysis", *Journal of Accounting and Economics*, Vol. 7, Pp. 11–42.

[3] M.L. Mace (1986), "Directors: Myth and Reality", *Harvard Business School Press*, Boston, MA.

[4] M.H. Schellenger, D.D. Wood & A. Tashakori (1989), "Board of Director Composition, Shareholder Wealth and Dividend Policy", *Journal of Managements*, Vol. 15, Pp. 457–467.

[5] B. Baysinger & R.E. Hoskisson (1990), "The Composition of Boards of Directors and Strategic Control", *The Academy of Management Review*, Vol. 15, Pp. 72–87.

[6] A. Agrawal & G.N. Mandelker (1990), "Large Shareholders and the Monitoring of Managers: The Case of Antitakeover Charter Amendments", *Journals of Financial and Quantitative Analysis*, Vol. 25, No. 2, Pp. 143–161.

[7] P.M. Dechow & R. Sloan (1991), "Executives Incentives and the Horizon Problem: An Empirical Investigation", *Journal of Accounting and Economics*, Vol. 14, No. 1, Pp. 51–89.

[8] J. Pearce & S. Zahra (1992), "Board Composition from a Strategic Contingency Perspective", *Journal of Management Studies*, Vol. 29, No. 4, Pp. 411–438.

[9] P. Mallette & K. Fowler (1992), "Effects of Board Composition and Stock Ownership on the Adoption of Poison Pills", *Academy of Management Journal*, Vol. 35, No. 5, Pp. 1010–1035.

[10] R.S. Kaplan & D.P. Norton (1992), "The Balance Scorecard-Measures that Drive Performance", *Harvard Business Review*, Vol. 70, Pp. 71–79.

[11] R.G. Sloan (1993), "Accounting Earnings and Top Executive Compensation", *Journal of Accounting and Economics*, Vol. 16, Pp. 55–100.

[12] R.M. Bushman, R.J. Indjejikian & A. Smith (1996), "CEO Compensation: The Role of Individual Performance Evaluation", *Journal of Accounting and Economics*, Vol. 21, Pp. 161–193.

[13] C. Daily & J. Johnson (1997), "Sources of CEO Power and Firm Financial Performance: A Longitudinal Assessment", *Journal of Management*, Vol. 23, No. 2, Pp. 97–117.

[14] S. Claessens, S. Djankov & L. Klapper (1999), "Resolution of Corporate Distress: Evidence from East Asia's Financial Crisis", *The First Annual World Bank Group-Brookings Institution Conference*, Palisades, New York.

[15] R. La Porta, F. Lopez-de-Silanes & A. Shleifer (1999), "Corporate Ownership around the World", *Journal of Finance*, Vol. 54, Pp. 471–517.

[16] M.C. Anderson, R.D. Banker & S. Ravindran (1999), "Interrelations between Components of Executives' Compensation and Market and Accounting based Performance Measures", *Working Paper*, *Texas University*.

[17] S. Claessens, S. Djankov & L. Lang (2000), "The Separation of Ownership and Control in East Asia Corporations", *Journal of Financial Economics*, Vol. 58, No. 1, Pp. 81–112.

[18] C. Prendergast (2000), "What Trade-off of Risk and Incentives?", *American Economic Review*, Vol. 90, No. 2, Pp. 421–425.

[19] R.M. Hayes & S. Schaefer (2000), "Implicit Contracts and the Explanatory Power of Top Executive Compensation for Future Performance", *RAND Journal of Economics*, Vol. 31, No. 2, Pp. 273–293.

[20] Y.H. Yeh, T.S. Lee & T. Woidtke (2001), "Family Control and Corporate Governance: Evidence from Taiwan", *International Review of Finance*, Vol. 2, Pp. 1–48.

[21] S. Claessens, S. Djankov, J. Fan & H.P. Lang (2002), "Disentangling the Incentive and Entrenchment Effects of Large Shareholdings", *Journal of Finance*, Vol. 57, No. 6, Pp. 2741–2772.

[22] L.C. Tsai (2003), "CEO Compensation, Nonfinancial Performance Measures and Future Performance", *The International Journal of Accounting Studies*, Vol. 37, Pp. 85–116.

[23] Y.H. Yeh, Y.H. Su, C.E. Ko & D.G. Li (2003), "The Effects of Corporate Governance Mechanisms on the Related Party Transactions", *Review of Securities and Futures Markets*, Vol. 15, No. 4, Pp. 69–106.

[24] H.F. Tsai, H.M. Chung & S.Y. Lin (2003), "Ownership Structure and the Informativeness of Earnings: Evidence from Taiwan", *Journal of Contemporary Accounting*, Vol. 4, No. 2, Pp. 143–168.
[25] B.E. Hermalin & M.S. Weisbach (2003), "Board of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature", *Federal Reserve Bank of New York Economic Policy Review*, Vol. 9, No. 1, Pp. 7–26.
[26] A. Almazan & J. Suarez (2003), "Entrenchment and Severance Pay in Optimal Governance Structures", *Journal of Finance*, Vol. 58, Pp. 519–548.
[27] C.G. Raheja (2005), "Determinants of Board Size and Composition: A Theory of Corporate Boards", *Journal of Financial and Quantitative Analysis*, Vol. 40, No. 2, Pp. 283–306.
[28] V. Laux (2006), "Board Independence and CEO Turnover", *Working Paper, Goethe University Frankfurt*.
[29] A. Haid & B. Yurtoglu (2006), "Ownership Structure and Executive Compensation in Germany", Available at *SSRN*, http://ssrn.com/abstract-948926.
[30] G. Drymiotes (2007), "The Monitoring Role of Insiders", *Journal of Accounting and Economics*, Vol. 44, No. 3, Pp. 359–377.
[31] D.F. Larcker, S.A. Richardson & I. Tuna (2007), "Corporate Governance, Accounting Outcomes, and Organizational Performance", *The Accounting Review*, Vol. 82, Pp. 963–1008.
[32] R.B. Adams & D. Ferreira (2007), "A Theory of Friendly Boards", *Journal of Finance*, Vol. 62, No. 1, Pp. 217–250.
[33] Y.S. Hung & T.C. Wang (2008), "An Analysis of the Relative Importance of Performance Measures in Top Executive Stock-based Compensation Contract", *The International Journal of Accounting Studies*, Vol. 46, Pp. 1–29.
[34] R. Barontini & S. Bozzi (2011), "Board Compensation and Ownership Structure: Empirical Evidence for Italian listed Companies", *Journal of Management and Governance*, Vol. 15, No. 1, Pp. 59–89.

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