

Firm Performance, Corporate Governance, Compensation, and CEO Turnover in Taiwan

Ying-Fen Lin* and Victor Wei-Chi Liu**

Abstract

This paper looks at 309 samples from the listed manufacturing companies in Taiwan, and determines the relationship between the performance of companies, internal control mechanisms, compensation, and CEO turnover by employing a logistic model. The analytical results are as follows: A. CEO turnover when a company's performance is low is an effective internal control mechanism for reducing the agency problem in Taiwanese companies. B. The control of outside blockholders over a CEO in a company internal governance mechanism plays an important role when CEO replacement occurs.

Keywords: Turnover; Corporate governance; Compensation

1. Introduction

The position of a CEO is markedly different from that of other managers, particularly in regards to job turnover. This fact has interested academicians for some time, with agency theorists viewing the dismissal or replacement of a CEO as an internal governance mechanism to reduce the problem of agency rights [8]. They hold that a company must change its CEO when he/she is not performing well. Following this viewpoint, a number of scholars have studied the influence of company performance on CEO turnover, so as to determine whether this internal mechanism is effective or not [1,4,19,20,32,34,41]. However, some CEOs become board-members or chairmen of the board of companies they resign or are dismissed from, and when this occurs scholars view it as a promotion or an extension of their previous job, calling it voluntary turnover [3,39]. These cases are thought to have nothing to do with performance, and are removed from the sample pool [36,39].

* Associate Professor, Accounting Department, National Dong-Hwa University, Ha-Lan, Taiwan, R. O. C.

** Professor, Business Administration Department, National Sun Yat-Sen University, Kaoshiung, Taiwan, R. O. C.

The authors wish to thank the anonymous reviewers for their comments on the development of this work.

Corporate governance theory, on the other hand, explains that governance is necessary in situations where there is an agency problem, a conflict of interests, or exchange costs are involved. A company's governance mechanism includes the board of directors, struggles over agency rights, large shareholders, hostile takeovers, and the company's financial structure [17]. Scholars have thus come up with different conclusions regarding the influence of CEO turnover, based on the different objects of their study, such as the structure of the board of directors [42], the ownership structure [7], or due to the location of the study [24], or the time period studied [14].

The provision of attractive compensation packages is an important human resource strategy to reduce employee turnover. An effective wage model is the most direct way of keeping employees and involves paying a higher surplus wage than competitors [25]. The influence that a compensation policy has on CEO turnover has been overlooked in the literature, however [16].

In Taiwan there are few examples before 1995 of listed companies changing their CEOs. This quickly was altered when over 100 listed companies changed CEOs in 1996 and 1997, bringing to surface the question of CEO turnover in Taiwan. In this paper's study of the influence of company performance on CEO termination, we first look at the company's rate of return on assets (ROA), the company's rate of return on assets as compared to other companies in the same industry, and the rate of stock returns. This serves as an index to prove whether, as agency theorists have put forth, that CEO turnover in Taiwan is an effective internal mechanism for reducing the effects of the agency problem. This paper also examines the relationship between company performance and the case of voluntary turnover in which the outgoing CEO takes a position as a board member or chairman of the company. This is used to gauge the effectiveness of the CEO succession model cited in Vancil [39] for Taiwan.

External control mechanisms include the threat of takeover [13], the competition in product markets and a market for managerial personnel [9]; internal control mechanisms include supervision by large external shareholders [6], supervision by the board, reciprocal supervision by the managers [9,10], and CEO compensation plans [29,33]. External control mechanisms, however, represent a costless way to the effectiveness of the principals, however, making internal control mechanisms more accepted [40]. With this in mind, this paper's second objective is to study the influence that the structure of the board of directors, and the control of large shareholders have

upon CEO turnover, in order to determine whether either of these internal governance mechanisms have any effect on CEO turnover.

Whether or not compensation influences CEO turnover in the milieu of Asian society's stress on *guanxi* (relationships) and loyalty is worth studying, and thus the third objective of this paper is to research the effect of compensation on CEO turnover. This paper looks at 309 samples of listed companies between the years 1996 and 1997, employing a logistic model to study the influence of the performance of companies a year before their CEO's replacement and the internal governance structure of the companies (structure of the board of directors, large shareholders, and relations to compensation) on the voluntary turnover of CEOs. Instances of sickness, death, or retirement leading to CEO turnover are not germane to this study [12] and are removed from the sample pool.

Below are the theoretical hypotheses developed and verified in this paper, as well as a discussion of the sample selection method, variable definition, and analytical model. This is followed by the research results and the paper's conclusion.

2. Literature Review and Hypotheses Development

As mentioned in the introduction, the factors that influence CEO turnover include: company performance, the governance mechanisms of the company and CEO compensation. These factors are discussed below.

2.1 Corporate Performance and CEO Turnover

Company performance has had a prominent role in past research on CEO turnover [1,4,19,20,32,34,41], and agency theorists have viewed CEO replacement as an internal control mechanism that reduces the agent problem in companies with poor performance. CEOs are responsible for the overall management of a company, and thus common sense reasons that the CEO should be held responsible when a company fails. Some scholars, however, believe that stock market performance should be used to gauge the success of a company [4,41], while other scholars hold that the rate of financial return should be linked to CEO turnover [42]. Moreover, company directors' expectations of a CEO are also based on the performance of competitors in the same industry, and when there is a large discrepancy with other companies, the board of directors often attributes it to the CEO. Thus, CEOs are often replaced when a company's performance lags behind that of other competitors [12]. Morck, Shleifer & Vishny [32] find that managers are often replaced when their company's performance is poor compared to other

companies in the industry. They use this to explain that internal supervisors employ the performance of other companies in the same industry to gauge the performance of CEOs. This finding and a great deal of empirical evidence support the relationship between company performance and CEO turnover. Hence, this paper studies CEO turnover in light of the rate of stock returns, rate of financial returns, and the market rate of return of companies compared to other companies in the same industry. The rate of financial return is extended back one year for the following hypothesis:

Hypothesis 1: There is an inverse relation between CEO turnover and a company's performance.

When studying the reasons for CEO turnover, many scholars contend that voluntary turnover includes cases in which a CEO leaves his/her post to take the position of a director or chairman of the board in the aforementioned company. In the CEO succession model put forth in Vancil [39], this type of turnover should have no relation to company performance [36,39], or it is seen as a reward or promotion given to CEOs for excellent performance. Vancil describes one common process of executive change as the 'relay process', whereby a successor is chosen several years in advance of the anticipated retirement of the incumbent CEO. During the transition period, power and authority are gradually handed over to the chosen replacement until, finally and anti-climactically, the title of CEO is formally given to the successor. Another model of executive succession is the 'horse race' in which several contenders are identified early and engage in a fairly open competition to determine who will become the next CEO. The choice of the relay process, or horse race, is dependent upon the culture of the company and the environment in which it operates [39]. Vancil's research concentrates on a routine, planned executive turnover, with a relatively ordered process of CEO succession. Under this process, the former and successor executives have the same goal: to make the incoming CEO be successful. If the new executive is unsuccessful, then it reflects badly on the former CEO's judgment and management skills.

Research by Brickley, Coles & Jarrell [3] proves that there is a positive correlation between company performance (at the time the CEO leaves) and a CEO's acceptance of the position of director in that company, which thus confirms Vancil [39]. As a result, much subsequent research on CEO turnover has viewed a CEO's acceptance of the position of director in that company after replacement as being called voluntary turnover and is unrelated to company performance. Thus, most instances have been taken

out of the sample pool [36,39].

Is voluntary CEO turnover in Taiwan – where a CEO becomes a director or chairman of a company after leaving his/her position – a method of promotion for CEOs? Two hypotheses are developed based on CEO job choice after turnover:

Hypothesis 2a: There is no correlation between voluntary CEO turnover and company performance.

Hypothesis 2b: There is a negative correlation between CEO involuntary turnover and company performance.

2.2 Corporate Governance and CEO Turnover

Control problems in a company occur when the agent problem, a conflict of interests, or transaction costs exist between members of that company [17]. A company's governance mechanisms include control by the board of directors, struggle over agent rights, hostile takeovers by large shareholders, and a company's financial structure. In Taiwan, the structure of the board of directors and the control of large shareholders are quite important. Below is a discussion of the influence of the board of directors on CEO turnover, followed by a look at the influence of large shareholders on CEO turnover.

2.2.1 Board of Directors

The pivotal role of the board emerges clearly from principal-agent considerations [9,10]. Here the transaction cost analysis leads to a similar emphasis on the role of the board [43].

Directors' responsibilities have defined three broad roles which are label control, service, and resource dependence [23]. The control role entails directors monitoring managers as fiduciaries of stockholders. In this role, directors' responsibilities include hiring and firing the CEO and other top managers, determining executive pay, and otherwise monitoring managers to ensure that they do not expropriate stockholder interests [31]. Aside from this, corporate law gives the board of directors the power to appoint and dismiss of CEO.

A number of studies suggest that the degree of alignment between board and shareholder incentives varies with the composition of the board. Fama and Jensen [10] argue that outside directors, who tend to be major decision-makers at other organizations, have incentives to signal to the labor market

that they are experts in decision control by acting in shareholder interests, As Weisbach [42] notes, inside directors are less likely than outside directors to challenge the CEO to whom their careers are tied. We hypothesize the following:

Hypothesis 3: If the ratio of outside directors is high, then CEO turnover will be high.

2.2.2 Outside Blockholders

Berle and Means'[2] original managerialist theory of corporate control maintains that the ownership of large corporations is dispersed, and therefore the influence of owners on the actions of managers is limited. The monitoring of top managers' actions by numerous dispersed owners becomes a free-rider problem: no individual owner is willing to invest in the costs of monitoring necessary to keep management acting in the owners' interests. The concentration of ownership thus becomes an important determinant of the extent to which free-rider problems are likely [5]. If ownership is concentrated in the hands of a few individuals, who can better monitor the actions of management, then the free-rider problem is reduced [6]. Conversely, if ownership is dispersed among several stockholders, none of whom have a significantly large ownership share, then managers may retain uncontested control over the organization [5].

Active investors are individuals or institutions that simultaneously hold large equity positions in a company and dynamically participate in its strategic direction. Active investors are important to a well-functioning governance system, because they have the financial interest and independence to view firm management and policies in an unbiased way [21]. This leads to the paper's fourth hypothesis:

Hypothesis 4: CEO turnover is high when there are outside block-holders.

2.3 Compensation and CEO Turnover

Retention of employees is an important issue in human resource management, and many firms use a compensation policy to provide incentives for key managers to remain with their firms. In the following section we mention the costs of managerial turnover and the relation between compensation and CEO turnover.

The costs of executive turnover results in costs specific to the firm that is losing the employee, such as the company's loss of value from previous investments in recruiting and training that individual. Although the em-

ployee's firm-specific human capital is not valuable outside the firm or to its competitors, the firm loses rents and quasi-rents with the departure of the employee [30]. High turnover may also affect the morale and productivity of workers who remain with the company or provide a negative signal about the firm and its prospects. Further disruption to the organization could occur, because talented managers have ongoing incentives to shop for outside offers or engage in disingenuous bargaining in order to extract greater wages from their current employers [28,30].

Firms can reduce costly managerial turnover by a better design of compensation contracts. A straightforward method for firms to retain their managers would be to offer premium or "excess" pay with a higher value than the contract offered by any competitor [25]. In theory, firms should be willing to match any offer received by an executive up to the point where the compensation cost just equals the executive's marginal product, a process that should lead to a value-maximizing solution in the economy [30]. Therefore, we expect that the higher the premium or excess pay is, the less likely CEOs are to leave their jobs. Hence, we hypothesize the following:

Hypothesis 5: CEO turnover will be low when there is excess compensation.

3. Sample Selection and Explanation of Variables

With reference to the literature reviewed above, a conceptual framework of this study has been drawn as shown in Figure 1.

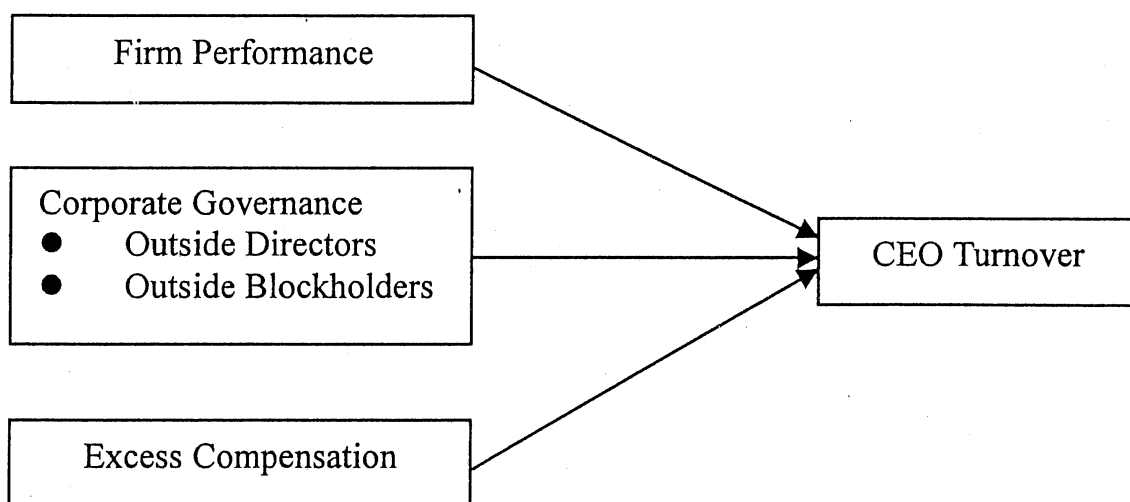


Figure1 The Conceptual Framework

The objective of this paper is to study whether or not in listed companies during the years 1996 and 1997, there is a correlation between CEO turnover and: company performance in the previous year, internal governance mechanisms, or CEO compensation. The following is an explanation of the sampling methods, variable definition, and analytical method in this paper.

3.1 Sample Selection

Samples selected for this paper are based on the following principles and standards:

- A. There are records of wage compensation for CEO who held his/her position for a full year before the study. Samples are rejected if CEO turnover occurred before to the research period.
- B. There is public access to the financial statement, structure of the board of directors, and stock-holdings of the CEO and large shareholders of the company in question.
- C. Samples are rejected if the age of the outgoing CEO was over 65, as this is viewed as retirement.
- D. In order to avoid any deviation in the study's conclusion due to changes in the power structure of companies, this research does not include companies that had merged, declared bankruptcy, or reorganized.
- E. In order to avoid too large a discrepancy among industries, the financial, department stores, construction, and shipping industries are not included.

Based on the criteria above, 309 samples were collected for this paper, 39 in which CEO turnover had actually occurred, or 12.6%.

3.2 Explanation of Variables

- A. Performance Index: Four variables are used to calculate company performance: (a) the rate of return on assets (ROA); (b) industry ROA; (c) industry stock return rate.
- B. Ratio of Outside Directors: The definition of outside directors in this paper refers to all members of the board of directors who are not employees, as well as their relatives once removed. The number of outside directors is then divided by the number of total directors.

C. Outside Blockholders: The definition of outside blockholders refers to all members of the board of directors who own at least 5% of the total shares of stock, are not employees, as well as their relatives once removed. This paper uses a dummy variable to express whether large external shareholders exist in the company or not: "1" represents that there are and "0" represents that there are none.

D. Excess Compensation: One of this paper's hypotheses is that a CEO's compensation will affect CEO turnover. CEO compensation is the sum of all forms of remuneration in the previous year (cash compensation, dividends, and performance bonuses). This paper uses the calculation method put forth in Coughlan & Schmidt (1985), but recent research into CEO compensation shows that other than company performance and company size, there are other factors that influence CEO compensation. As a result, the model employed in this paper also includes other factors: control by the board of directors, the influence of large share-holders, the ratio of stock held by CEOs, and the company's investment opportunities. These elements are factored in to calculate an anticipated market compensation level. Excess compensation thus refers to the value of the residual error in the regression model shown below and represents the (surplus) difference between the anticipated market compensation and the actual wage compensation of CEOs.

$$\text{Log (Cash Compensation)}_{it} = b_1 \text{Log (Sales)}_{it} + b_2 \text{(ROA)}_{it} + b_3 \text{(Log (1+Stock Return))}_{it} + b_4 \text{(rinpert)}_{it} + b_5 \text{(CEO Duality)}_{it} + b_6 \text{(CEO Holdings)}_{it} + b_7 \text{(Board Holdings)}_{it} + b_8 \text{(Outside blockholders)}_{it} + b_9 \text{(MKTBKEQ)}_{it} + e_{it}$$

E. Control Variables: We included a series of control variables based on previous research. These are board shareholdings minus CEO's holdings, CEO's holdings, investment opportunity = (Outstanding share * Price) / Total common equity and debt ratio.

3.3 Source of Data

Data regarding CEOs, board of directors' shareholding ratios, and rate of return on stock are taken from the Fiscal Databanks of the Taiwan Economic Press. Data on CEO compensation, net sales, total assets, rate of return on assets, and rate of return on equity are found in the annual reports published by the companies and data for the age of CEOs are drawn from the "List of Managers in Taiwan."

3.4 Analytical Methodology

The research uses a logistic regression analysis to test the relationship among performance, outside directors, outside blockholders, excess compensation, and CEO turnover.

4. Empirical Results

4.1 Descriptive Statistics

Table 1 shows the minimum value, maximum value, mean, and standard deviation for the variables. The table shows that the maximum stockholdings of the board of directors minus CEO's holdings are 64% and the minimum is 1%. The maximum holdings of the CEO are 35% and the minimum is zero. The ratio of outside directors is with a minimum value of 0 (meaning no outside directors) and a maximum value of 1 (meaning that all directors are not employees or the relatives of the CEO).

Table 1 Descriptive Statistics

Variable	Mean	Std. Deviation	Minimum	Maximum
BLOCKDUM	.3754	.4850	.00	1.00
BOARD (%)	.1935	.1321	.01	.64
CEOHOLD (%)	.035	.0515	.00	.35
COMPENSA	3053.72	1490.106	1077.50	10974.63
MKTBKEQ	1.7903	.6583	.55	4.94
RETURN	-.003	.4126	-.67	3.03
RETURN (t-1)	-.02	.3930	-.57	2.04
LIABILITY	.3806	.1410	.06	.88
DROA	-.01	.0611	-.35	.25
DROA (t-1)	-.006	.0603	-.14	.38
ROA	.059	.0646	-.25	.41
ROA (t-1)	.073	.0627	-.05	.45
RRPERT	.4821	.3189	.00	1.00

Table 2 Frequency of CEO Turnover, Classified by Year and Type of Turnover

Type of turnover	1996	1997	Total
CEO loses position, but stays on board as chairman	6	7	13
CEO loses position, but stays on board in a capacity other than chairman	7	4	11
CEO loses position, but dose not remain on the board	11	4	15
All turnover events	24	15	39

Table 2 lists information regarding CEO turnover in Taiwan in 1996 and 1997. The CEO turnover rate is 12.6% among the 309 samples, and 33.3% of CEOs retained their posts as chairman of the board, while 28.2% remained on the board of directors. The remaining 38.5% left their company.

4.2 Analysis of Results

The correlation among variables of Table 3 reveals that the problem of variable collinearity is not great. The coefficient of all variables is less than 0.5, except for the coefficient of the index of company performance.

The VIF of the model are listed in Table 4. The first row is the VIF of ROA and other variables; the second row is the VIF of DROA and other variables; and the last row is the VIF of stock return and other variables. This reveals that collinearity of the variables is not marked.

Table 3 Correlations for All Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1IRRPERT	1													
2BLOCKDUM	.392**	1												
3EXE COM	0	0	1											
4BOARD	.043	.413**	0	1										
5CEOHOLD	-.231**	-.157**	0	-.117*	1									
6LIBILITY	.108	.035	-.151**	-.012	-.058	1								
7MKTBEQ	.066	.173**	0	.217**	.025	.044	1							
8ROA	.099	.178**	0	-.023	-.006	-.172**	.092	1						
9ROA(t-1)	.043	.12*	.238**	.016	.093	-.332**	.074	.342**	1					
10DROA	.029	.054	-.072	-.084	-.059	-.185**	.069	.829**	.153**	1				
11DROA(t-1)	-.016	.056	.207**	-.018	.062	-.363**	-.037	.277**	.863**	.258**	1			
12LGRETRN	.028	.047	0	.097	.063	-.017	.458**	.107	.069	.101	-.032	1		
13LGRETRN(t-1)	.025	.062	-.008	.004	.018	-.053	-.118	.256**	.296**	.088	.277**	-.594**	1	
14LGDRETRN	.016	.03	-.031	.099	.065	.003	.403**	.316**	.178**	.203**	.066	.608**	-.011	1

Table 4 Collinearity Statistics

	ROA	Adjusted ROA	Stock Return
	VIF	VIF	VIF
Performance	1.216	1.151	1.848
Performance (lagged one year)	1.489	1.267	1.427
Outsiders	1.110	1.115	1.114
Blockholder (Dummy)	1.364	1.309	1.327
Excess compensation	1.091	1.093	1.048
Board holdings	1.373	1.371	1.366
CEO holdings	1.222	1.187	1.196
Liability	1.213	1.188	1.056
Mktbkeq	1.075	1.080	1.437

The CEO turnover rate and the results of the logistic regressive analysis of the variables are listed in Table 5. The first column of the table is ROA, the second column is industry ROA, and the third column is the stock return rate. This shows the marked relationship between the ROA and industry ROA with the company performance index and CEO turnover. These results confirm Hypothesis 1, that when a company's performance is weak, the CEO turnover rate will be high. The table also shows, however, that there is no significant correlation between the stock market return rate and CEO turnover. Moreover, the adjusted industry stock market return rate is not listed, as there is no statistically significant relation in the entire logistic model.

Table 5 shows that there is no significant relationship between the ratio of outside directors and CEO turnover. This finding hence does not support Hypothesis 3: that when the ratio of outside directors is high, CEO turnover will be high. There is a marked relationship, however, between whether a company has a large number of outside blockholders (holding over 5% of the total stock) and CEO turnover rates. This supports Hypothesis 4: that CEO turnover will be high when there are outside blockholders. The related coefficients of CEO turnover and excess compensation are negative, but no statistics exist for this category. Thus, the data is unable to support Hypothesis 5: that CEO turnover will be low when there is excess compensation.

Table 5 Logit Regression Estimates of the Probability of CEO Turnover

Estimated model: Probability (Turnover) = f (firm performance, outsiders, outside blockholders and control variables)

Firm performance measured using:

	ROA	Adjusted ROA	Stock Return
Intercept	-1.9228**	-2.2899***	-2.5508***
Performance	-6.2188**	-6.7685**	-0.5660
Performance (lagged one year)	-0.3283	-0.0923	1.9120
Outsiders	0.6679	0.6250	0.3921
Blockholder (Dummy)	0.8082*	0.7189	1.0404**
Excess compensation	-0.3866	-0.6381	-0.3342
Board holdings	-3.0854*	-3.2170	-4.0398*
CEO holdings	2.9620	2.1122	2.1174
Liability	-1.8180	-1.9096	-1.1766
Mktbkeq	0.4370	0.4482*	0.5616*
No. of observations	309	309	272
P-value	0.1008	0.0744	0.0343

In order to determine whether CEOs in Taiwan are given the position of director or chairman of the board as a reward for their excellent performance or as a promotion, we label samples in which the CEO did take one of these positions as "1" and all other samples as "0." We then perform a regression analysis and find that there is no marked correlation (see Table 6) between company performance and whether the company CEO took the position of company chairman. Moreover, the results are significantly negative in regards to ROA. We then label samples in which the CEO took a position as chairman or on the board of directors of the company after leaving his/her post as "1" and all other samples as "0" and then we perform another regression analysis. The results of this analysis show that there is no relationship between company performance and this type of CEO turnover. These results explain that it may not be considered as a promotion when CEOs in Taiwan take the post of chairman of the board or sit on the board of directors after leaving their post.

We next label CEOs who took the post of chairman of the board as "1" and the remainder as "0" and perform a logistic regression on the samples. The results show that there is a marked correlation between this type of involuntary turnover and the company and industry ROA. The regression model does not reach the 10% significant level, however. A further stepwise-forward regression reveals that the most significant factor within voluntary

Table 6 Regression Model (Chairman=1, Others=0)

Model	B	Beta	T	Sig.
Constant	.414		5.067	.000
ROA	-1.737	-.339	-2.188	.035

Regression Model (Board=1, Others=0)

Model	B	Beta	T	Sig.
Constant	.674		7.750	.000
ROA	-1.270	-.240	-1.503	.141

Table 7 Stepwise Regression on Estimates of the Probability of Voluntary CEO Turnover

Variable	B	S.E.	Wald	P-value
ROA	-8.1941	3.4190	5.7440	0.0165
Constant	-2.0991	0.2447	73.5893	0.0000

Variable	B	S.E.	Wald	P-value
Adjusted-ROA	-8.4559	3.0545	7.6639	0.0056
Constant	-2.7038	0.2477	119.1322	0.0000

Table 8 Logit Regression Estimates of the Probability
of Nonroutine CEO Turnover

Estimated model: Probability (Turnover) = f (firm performance, outsiders, outside blockholders
and control variables)

Firm performance measured using:

	ROA	Adjusted ROA	Stock Return
Intercept	-3.3932***	-3.8899***	-5.7617***
Performance	2.8782	2.0927	-4.3559
Performance (lagged one year)	-11.1381**	-8.8364*	1.9291
Outsiders	1.3363	1.2130	0.9745
Blockholder (Dummy)	1.1617*	1.1541*	1.6208**
Excess compensation	-0.5065	-0.8093	-1.5280
Board holdings	-2.6419	-2.8769	-4.9220
CEO holdings	1.3189	-0.1015	0.5707
Liability	-3.8156*	-3.6265*	-1.9023
Mktbkeq	0.7482**	0.7212**	1.3415***
P-value	0.0204	0.0377	0.0025

turnover is company performance (as measured by the company and Industry's ROA), but this factor has a negative correlation (see Table 7). This finding does not support Hypothesis 2a: that there would be no correlation between voluntary CEO turnover and company performance.

Table 8 is a logistic regression analysis of the variables involved in involuntary CEO turnover (where the CEO does not take the position of chairman of the board). The results show that there is a marked negative correlation between CEO turnover and the company and industry ROA (calculated using the performance of the company one year previously). This supports Hypothesis 2b: that there is a negative correlation between CEO involuntary turnover and company performance.

5. Conclusions

This study chooses samples from Taiwan's listed manufacturing sector and determines the relationship between the performance of companies, internal control mechanisms, compensation, and CEO turnover by employing a logistic model. The analytical results are as follows:

- A. CEO turnover under low company performance is an effective internal control mechanism for reducing the agency problem in Taiwanese companies. The research shows that the CEO turnover rate is high when companies show a sluggish performance. The standard used for determining a company's performance is the rate

reported in the company's own financial statement or returns posted from similar companies in the same industry.

- B. The control of outside blockholders over CEOs in companies' internal governance mechanisms plays an important role when CEO replacement occurs. When outside blockholders who own more than 5% of the total stock are able to easily replace CEOs, it is in concurrence with the ownership structure theory, which states that shareholders with a sizeable amount of shares will be able to efficiently supervise the managers [5,6]. This result fits the conclusion of Morck, Shleifer & Vishny [32], whereby the board is unable to effectively supervise management unless they hold a substantial portion of the company's stock. Thus, in Taiwan, outside blockholders who own a sizeable portion of a company's stock are able to efficiently supervise managers in the company.

Referecnes

- [1] Benston, G. 1985. The self-serving hypothesis: Some evidence. *Journal of Accounting and Economics* 7 (April) 67-84.
- [2] Berle, A.A., G.C. Means. 1932. *The modern corporation and private property*. New York: MacMillan.
- [3] Brickley, J.A., J.L.Coles, G. Jarrell. 1997. Leadership structure: Separating the CEO and Chairman of the Board. *Journal of Corporate Finance* 3 189-220.
- [4] Coughlin, A.T., R.M. Schmidt. 1985. Executive compensation, management turnover, and firm performance: An empirical investigation. *Journal of Accounting and Economics* 7 (April) 43-66.
- [5] Davis, G.F. 1991. Agents without principles? The spread of the poison pill through the intercorporate network. *Administrative Science Quarterly* 36 583-613.
- [6] Demsetz, H., L. Kenneth. 1985. The structure of corporate ownership: Causes and consequences. *Journal of Political Economy* 93 1155-1177.
- [7] Denis, D.J., D.K. Denis, A. Sarin. 1997. Ownership structure and top executive turnover. *Journal of Financial Economics* 45 193-221.
- [8] Dewing, A.S. 1953. *Foundation of Finance*, Basic, New York.
- [9] Fama, E.F. 1980. Agency problems and the theory of the firm. *Journal of Political Economy* 88 288-307.
- [10] _____, M.C. Jensen. 1983. Separation of ownership and control. *Journal of Law and Economics* 26 (June) 301-325.

- [11] Fong, C.M., C.H. Tseng, H.J. Chung. 1999. The effects of planning processes on instability of Taiwan's international joint venture. *Asia Pacific Management Review* 4(1) 13-22.
- [12] Fredrickson, J.W., D.C. Hambrick, S. Baumrin. 1988. A model of CEO dismissal. *Academy of Management Review* 13 255-270.
- [13] Grossman, S.J., O.D. Hart. 1983. An analysis of the principal agent problem. *Econometrica* 51 7-45.
- [14] Hadlock, C.J., G.B. Lumer. 1997. Compensation, turnover, and top management incentives: Historical evidence. *Journal of Business* 70(2) 153-187.
- [15] Hollock, K.F. 1997. Reciprocally interlocking boards of directors and executive compensation. *Journal of Financial and Quantitative Analysis* 32(3) 331-344.
- [16] Harrison, J.R., D.L. Torres, S. Kukalis. 1988. The changing of the guard: Turnover and structural change in the top-management positions. *Administrative Science Quarterly* 33 211-232.
- [17] Hart, O. 1995. *Firms, Contracts, and Financial Structure*, Oxford University Press.
- [18] _____. 1995. Corporate governance: Some theory and implications. *The Economic Journal* 105 (May) 678-689.
- [19] James, D., M. Soref. 1981. Profit constraints on managerial autonomy: Managerial theory and the unmaking of the corporate president. *American Sociological Review* 46 1-18.
- [20] Jauch, L., T. Martin, R. Osborn. 1980. Top management under fire. *Journal of Business Strategy* 1 33-41.
- [21] Jensen, M. 1993. The modern industrial revolution, exit and the failure of internal control systems. *Journal of Finance* 48 831-880.
- [22] Jensen, M.C., R.S. Ruback. 1983. The market for corporate control: The scientific evidence. *Journal of Financial Economics* 11 5-50.
- [23] Johnson J.L., C.M. Daily, A.E. Ellstrand. 1996. Boards of directors: A review and research agenda. *Journal of Management* 22 (3) 409-438.
- [24] Kang, J.K., A. Shivdasani. 1995. Firm performance, corporate governance, and top executive turnover in Japan. *Journal of Financial Economics* 38 29-58.
- [25] Katz, L. 1986. Efficiency wage theories: A partial review, in Stanley Fischer. *NBER Macroeconomics Annual* (MIT Press, Cambridge, MA).
- [26] Ko, Pai-Ling, Victor W. Liu. 1998. The signaling effect of foreign exchange intervention in Taiwan. *Asia Pacific Management Review* 3 (2) 197-208.

- [27] Lin, Chu-Hsiung, Victor W. Liu, C.S. Wu. 2000. The analysis of stock return and volatility in Taiwan OTC stock market. *Asia Pacific Management Review* 5(4) 435-449.
- [28] Lazear, E.P., K.J. Martin. 1991. Corporate performance, corporate takeovers, and management turnover. *Journal of Finance* 46 671-688.
- [29] Lewellen, W., C. Loderer, K. Martin. 1987. Executive compensation contracts and executive incentive problems: An empirical analysis. *Journal of Accounting and Economics* 4 (Dec.) 287-310.
- [30] Milgrom, P., J. Roberts. 1992. *Economics, Organization and Management*, Prentice Hall, Englewood Cliffs, NJ.
- [31] Monks, R.A.G., N. Minow. 1995. *Corporate Governance*, Cambridge, MA: Blackwell Business.
- [32] Morck, R., A. Shleifer, R.W. Vishny. 1988. Management ownership and market valuation. *Journal of Financial Economics* 20 293-315.
- [33] Murphy, K. 1985. Corporate performance and managerial remuneration: An empirical analysis. *Journal of Accounting and Economics* 7 (April) 11-42.
- [34] Osborn, R., L. Jauch, T. Martin, W. Glueck. 1981. The event of CEO succession, performance, and environmental conditions. *Journal of Financial Economics* 24 183-191.
- [35] Parrino, R. 1997. CEO turnover and outside succession: A cross-sectional analysis. *Journal of Financial Economics* 46 165-197.
- [36] Pourciau, S. 1993. Earnings management and nonroutine executive changes. *Journal of Accounting and Economics* 16 317-336.
- [37] Schellenger, M.H., D.D. Wood, A. Tashakori. 1989. Board of director composition, shareholder wealth, and dividend policy. *Journal of Management* 15 457-467.
- [38] Vance, S.C. 1983. *Corporate Leadership: Boards of Directors and Strategy*, New York: McGraw-Hill.
- [39] Vancil, R. 1987. *Passing the baton*. Boston, MA. Harvard University Press.
- [40] Walsh, J.P., J.K. Seward. 1990. On the efficiency of internal and external corporate control mechanisms. *Academy of Management Review* 15 421-458.
- [41] Warner, R., R.L. Watts, K.H. Wruck. 1988. Stock prices and top management changes. *Journal of Financial Economics* 20 461-492.
- [42] Weisbach, M.S. 1988. Outside directors and CEO turnover. *Journal of Financial Economics* 20 431-460.
- [43] Williamson, O. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.