

**DO CORPORATE GOVERNANCE CHARACTERS HAVE INFLUENCE  
ON CORPORATE EQUITY VALUE?**

*An Evidence of Taiwan Electronic Industry*

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**Abstract**

The main purpose of this study is to discuss whether corporate governance features variables have influence on equity value by using listed electronic companies in OTC as samples. We propose six hypotheses to test and our empirical result shows that among independent variables, two variables have significant influence: holding share ratio of directors and supervisors is negatively significantly correlated with equity value, which is not in support of hypothesis 1. The holding share ratio of first and second stockholders is positively significantly correlated with equity value, which is in support of hypothesis 4.1. In addition, this paper applies the increasing amount explanatory capability analysis and finds that after adding these corporate governance indicators, adj  $R^2$  of the valuation model with corporate governance variables is up to 56.6% to 51%. The findings implies that corporate governance variables have better explanatory power of equity value. Also, we can improve validity of the Ohlson (1995) equity valuation model.

**I. Introduction**

The Financial Accounting Standards Board (FASB) once pointed out in its report, named Statements of Financial Accounting Concepts No.1 issued in 1978, that the general purpose of financial reporting was to reveal details of corporate assets and liabilities, earnings plan, marketing forecast, financial condition and business performances by formal financial statements, as well as analyzing quantitative and non-quantitative information. However, whether accounting information is important or not has been concerned both in practical and academic groups for a long time. Being based on the capital market, Ball and Brown (1968) propose that corporate accounting earnings contain information content. However, other information was also critical in the area of financial accounting. For example, non-earning information, such as book value, has valuable relevant information contents (Easton and Harris, 1991; Ohlson, 1995).

The Asian Financial Crisis in 1997 generated by serious problems about non-transparent financial information in the most family- and group-managed Asian businesses. In order to alleviate the impacts on financial environment

caused by non-transparent financial information, since 1999, Organization for Economic Cooperation and Development (OECD) has issued corporate governance principles and explored corporate governance in Asian businesses for three consecutive years. These principles provide more general guidelines to implement corporate governance. In 2001, lots of cases about cooking the books including Enron outbreak in the United States, the country that was used to be regarded as a model of operation of company laws. These fraudulence cases shook the interest-avoiding spirit and mechanism of full disclosure of information in capital market. The critical value of accounting information and fairness revealed by corporate financial statements were also doubted. On the other hand, by learning from these cases, various groups of society started to pay attention to other information besides the financial statements. The information that accounting data in the financial statements can't reveal can be just covered by the one related to the corporate governance mechanism. In the literatures of accounting valuation model, Easton and Harris (1991), and Ohlson (1995) propose that besides information indicated by financial statements, the corporate value was also determined by other important information that the financial statements can't present. Since 1997, series of financial problems have happened in businesses across the world including the 1997 Asian Financial Crisis, financial crisis occurred in a row upon Taiwan listed companies in 1998, as well as false declarations of financial statements happened in American large-scale companies in 2001 etc. These affairs verify Ohlson's idea that the information except for financial statements should be considered in corporate evaluation, and allow the competent authority and public investors understand that complete corporate governance mechanism has become an important point in evaluating corporate and perfecting capital market. Also, most of literatures related to corporate governance are studied with view of forecastings made by corporate governance features for corporate performance or financial crisis (Yin-Hua Yeh, Tsun-Siou Lee and Cheng-En Ke, 2002; Rong-Jen Lee and Xian-ming Chen, 2004), yet few studies discuss the relationship between corporate governance and equity value. Therefore, the main purpose of this article is to explore the significance of corporate governance information to equity evaluation of Taiwan companies.

This paper employs Ohlson's (1995) accounting valuation model. Our sample consists of all Taiwan listed electronic companies during the period 2003~2004. In addition, in previous literatures, Easton (1985) once used decomposition method of increasing amount explanatory capability (Theil, 1971). After that, most scholars, for example, Collins, Maydew and Weiss (1997), and Barth et al. (1998), adopted this method in their empirical literature of accounting. This research also uses such decomposition method to prove whether it is appropriate to integrate corporate governance variables into equity valuation model.

Therefore, this article is to verify hypotheses by means of descriptive statistics, multiple regression analysis and increasing amount explanatory

capability analysis to examine whether it is appropriate to integrate corporate governance variables into the equity valuation model. Besides insufficient manpower and difficulty in obtaining the data, this research is also limited by possible measuring errors since adopted variables might not cover the meaning of corporate governance completely.

The remainder of this paper is organized as follows. Section 2 introduces the previous literatures. Section 3 describes data and discusses the employed methods. Section 4 presents the results of examining these hypotheses. Section 5 concludes this paper.

## II. Literature Review

Corporate equity value is highly relevant to financial and non-financial information. From this point, this paper discusses several literatures with themes of corporate equity values and corporate governance, which are introduced as follows:

### *2.1 Corporate Equity Value*

Based on the assumption of market efficiency, Ball and Brown (1968) suggest that equity value can be fully reflected by corporate financial information. In other words, the corporate equity value is determined by information revealed by financial statements. Easton (1985) proposes equity price is often considered as present value of stockholders' potential interests, which should be measured based upon other market information because of difficult observation. Hence, if this study measure stockholders' potential interests by corporate earnings, the relationship between equity value and earnings should be studied subsequently.

These above scholars stressed on the impacts of corporate finance information on equity value. Since 1990s, a series of financial crises, such as 1997 Asian Financial Crisis and consecutive false declarations in 2001 American large-scaled companies, have outbroke consecutively, and also make scholars start to doubt about the usefulness of financial statement. Some of them even thought that financial information was not critical any more, and investors shall start to consider non-financial information related to corporate operation. Under these circumstances, Ohlson (1995) equity valuation model is paid attention to researchers. He sets up the following hypotheses : 1. Investors have risk neutrality. 2. Investors have homogenous belief for the investment. 3. Market interest rate is a kind of random and horizontal term structure of interest rates. With this hypothesis, Ohlson thinks that equity market value is a sum of book value of stockholders' equity and present value of expected future abnormal earnings. Moreover, Ohlson assumes the abnormal earnings as a variable with random time series, the equity market value is a function composed of three following variables: (1) book value of equity, (2) abnormal earnings in the current period, and (3) future profitability adjusted according to

other information.

## **2.2 Corporate Governance**

After 1997 Asian Financial Crisis, corporate governance has been focused widely all over the world and primarily defined by researchers and experts from different viewpoints. This research, from the view of corporate system, discusses the literatures with equity structure, composition of board of directors and its stability, and equity investment.

### **2.2.1 The Composition of Board of Directors**

Fama (1980) and Morck, Shleifer and Vishny (1988) propose that inside directors possess much information to supervise managers' actions. However, since they also take important positions in the corporate, they might collude with managers under mutual-beneficial circumstances to make decisions against the corporate and therefore influence corporate value negatively. Compare with inside directors, outside directors possess less information to supervise managers. However, they are more independent and can play supervision role better. Core, Holthausen and Larcker (1999) propose that with more positions in the board taken by inside directors, CEO are paid lower and the corporate operates better. There is no evidence showing that the board dominated by outside directors operates more efficiently comparing with the one dominated by inside directors, or creates better operation performance. Pound (1988) proposes the following points for the impacts of institutional investors on corporate performance:

1. Efficient Monitoring Hypothesis: with more complete professional knowledge and technologies, institutional investors can supervise the operation of the corporate more efficiently and promote the corporate value.
2. Conflict of Interests Hypothesis: when institutional investors' interests are conflicted with the corporate's, they might support operators conforming to their own interests. Therefore, the holding stock ratio of institutional investors is negatively correlated with corporate performance.
3. Strategic Alignment Hypothesis: institutional investors might make certain compromise with operators to maintain their benefits. Therefore, the holding stock ratio of institutional investors is negatively correlated with corporate performance.

In addition, Rechner and Dalton (1991), Finkelstein and Gleason (1999) find that the corporates with independent-leadership system operate better performance than the ones with dual-leadership system. Simpson and Gleason (1999) propose that for dual-leadership system corporates, their possibility of financial distress risk is smaller than the ones with

independent-leadership system.

### **2.2.2 Equity Structure**

Demsetz Lehn (1985) discusses the correlation between equity structure and performance. The empirical result shows that equity structure was independent from corporate performance. Agrawal (1990) proposes the holding stock ratio of corporate is in a significant positive relationship with corporate value. The more shares the corporate holds, the more benefits by management and supervision it gets, and the higher corporate performance and value are also. Oswald and Jahera (1991) propose that the higher holding shares ratio of the directors and managers, the better performance the corporate has. Morck, Shleifer, and Vishny (1988) propose critical hypothesis by combining convergence of interest hypothesis and entrenchment hypothesis to investigate the best optimal equity structure for American manufacturing industry: When the managers hold 5%–25% of corporate equity, with the holding stock ratio increases, the managers gets more voting rights to consolidate their benefits and positions, and hereby damage the corporate value; yet, when the proportion is less than 5% or higher than 25%, with the ratio increases, the corporate value also increases. This represents that equity structure is not in linear relationship with corporate value.

### **2.2.3 The Stability of Board of Directors**

Claire, Garner and Marshall (2002) use wealth relative index to inspect relationship between IPO performance and changes in board of directors, and impacts of the latter upon the former. Their study find that the poorer the corporate performs, the more unstable the board of directors was. However, when the corporate continues to improve its performance, the board of directors will get more stable. In corporate governance theory, whether the board of directors play its supervision role efficiently depends on its own stability. Therefore, with the view of improving supervision system, changes of board of directors will improve corporate performances, which might prove the fact that poor IPO performance might occur only in individual company, instead of in the special market. This also agree with the concept that the board of directors is a mechanism of supervision in corporate governance theory.

### **2.2.4 Corporate Equity Investment**

If the investment corporate is not quite clear about the financial and operation situation of invested company or does not understand it very well, the corporate will be likely to make itself in bankruptcy risks because of cash flow problems during the years of recession. Lee (1990) argues that for the corporate with larger amounts of equity investment, its complicated and diversified management has negative impacts upon the corporate operation, and decreases the corporate value eventually.

### 3. Methodology

#### 3.1 Research Hypotheses

The main purpose of this paper is to investigate whether the corporate governance features have impact on the equity value. Based upon Ohlson (1995) equity valuation model, this paper assumes that the model has better explanatory capability for corporate equity value after adding corporate governance variables. According to this assumption, we propose the following hypotheses:

##### 3.1.1 Hypothesis 1

With higher holding shares ratio, directors and supervisors will be more motivated to manage and supervise the corporate and promote corporate values (Oswald and Jahera 1991).

##### 3.1.2 Hypothesis 2

With more positions as directors in the board, corporate directors would manage and supervise corporate better and hereby promote corporate values (Agrawl, 1990).

##### 3.1.3 Hypothesis 3

Outside directors are more independent and can play supervision role better than inside directors. With more positions as directors in the board, outside directors would manage and supervise corporate better and therefore promote corporate values (Morck, Shleifer and Vishny, 1988).

##### 3.1.4 Hypothesis 4

###### *Hypothesis 4.1*

The higher holding share ratio of the first and second shareholder is, the more centralized in two largest shareholders equity is. The managers tend to make identical decisions helpful to operation performance and hereby promote corporate value.(Edwards and Weichenrieder, 2001).

###### *Hypothesis 4.2*

If the holding share ratio of the second stockholder is higher compared with the one of the first stockholder, the second stockholder has stronger capability of supervising and balancing corporate and hereby promotes corporate value. (Edwards and Weichenrieder, 2001).

###### *Hypothesis 4.3*

With higher holding shares ratio, managers will be more motivated to manage the corporate and promote corporate values (Oswald and Jahera 1991).

##### 3.1.5 Hypothesis 5

Larger amounts of equity investment and more complicated management will generate negative impacts upon the corporate operation and decrease

respectively:

MV: Corporate equity value

BV: Book value per share

EPS: Earnings per share

CGFi: corporate governance features (Table 2, corporate governance features variables)

According to the study conducted by Aboody (1996), Barth et al. (1998) and Chen (2003), earnings of current year is highly correlated with abnormal earnings through correlation analysis. In most empirical researches, the abnormal earnings is replaced with earnings of current year. Therefore, based upon the previous result, in this paper, abnormal earnings in Ohlson equity valuation model is replaced with earnings per share of current year.

### *3.6 Empirical Approaches*

Figure 1 shows that in this study, according to previous studies, we propose six hypotheses to test by descriptive statistics and multiple regression model. We construct regression model by replacing other information in Ohlson's model with corporate governance variables to test the relationship between these variables and equity value. Continuingly, we implement the decomposition method of increasing amount explanatory capability proposed by Theil (1971), which is ever applied by Easton (1985), Collins, Maydew and Weiss (1997), and Barth et al. (1998). According to this method, we decompose the regression model into three parts: (1) increasing amount explanatory capability of book value. (2) increasing amount explanatory capability of earnings. (3) increasing amount explanatory capability of corporate governance variables. Next, by model specification test, this paper examines whether it is appropriate to add corporate governance variables into equity valuation model and find the optimal true model.

**Table 1** Dependent and independent variables of the study

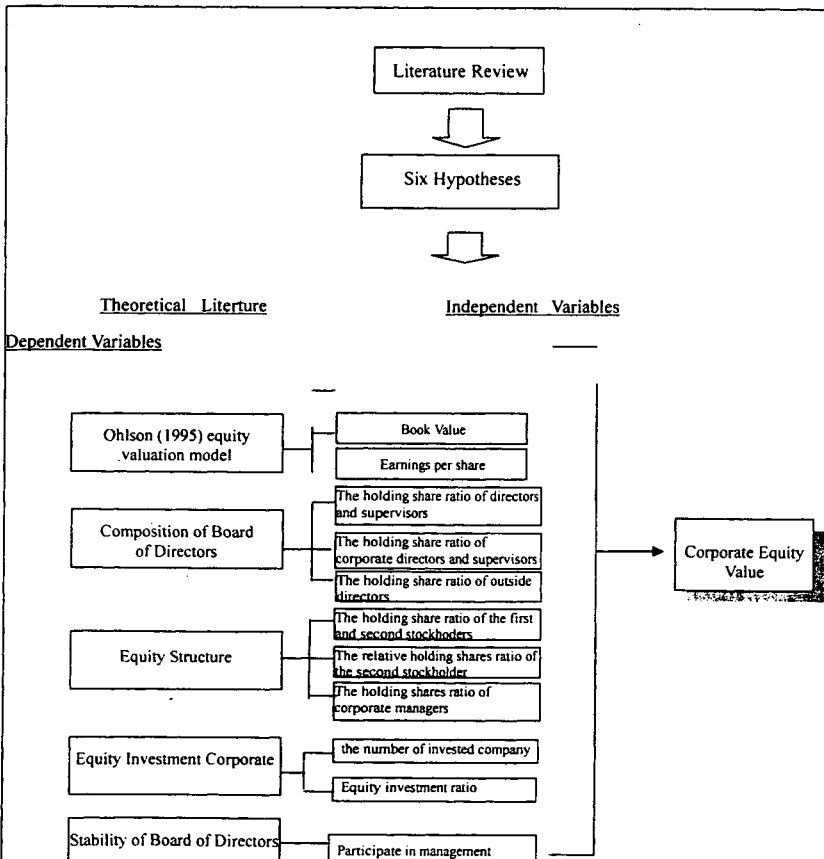
<i>Variables</i>	<i>Explanation</i>	<i>Proxy varia and data da</i>
<i>Dependent variables</i>		
Equity value	Price per share at the fifth month after the ending of fiscal year (Ohlson,1995 : Chen, 2003)	Monthly average closing price in May, 2003/2004
<i>Independent variables</i>		
Book value	Book value per share at the end of fiscal year (Ohlson,1995 : Aboody, 1996 : Bvarth et al., 1998 : Chen,2003)	Book value per share in 2003/ 2004
Earnings per share	Earnings per share in the period of fiscal year (Ohlson,1995 : Aboody, 1996 : Barth et al.,1998 : Chen,2003)	Earnings per share in 2003/ 2004
<i>Corporate governance variables</i>		
1.The holding share ratio of directors and supervisors	The holding shares ratio of all directors and supervisors in the corporate equity(Oswald and Jahera, 1991)	
2. The holding share ratio of corporate directors and supervisors	The holding share ratio of corporate directors and supervisors to all directors and supervisors (Agrawal,1990)	
3. The holding share ratio of outside directors	The holding share ratio of outside directors to all directors. (Morck, Shleifer and Vishny, 1988)	
4.The holding share ratio of the first and second stockholders	Sum of the holding share ratios of the first and second stockholders. (Edwards and Weichen- rieder, 2001)	Data at the end of December 2003/2004
5.The relative holding share ratio of the second stockholder	The holding share ratio of the second stockholder/the ratio of the first stockholder (Edwards and Weichenrieder, 2001)	
9.The holding shares ratio of corporate managers	The holding share ratio of managers (Oswald and Jahera,1991)	
6.the number of invested company	Sum of invested company number whose equity is hold by sample company. (Weston and Copeland, 1986 : Lee,1990)	



7. Equity investment ratio	Long-term equity investments/ stockholder equity (Weston and Copeland, 1986 ; Lee,1990)
8. Participate in management	Used dummy variable is equal to 1 if the chairman of board and general manager are the same person; otherwise variable is equal to 0. The variable is applied to measure negative entrenchment effects. Since possessing both management right and ownership, the person has significant power in corporate decision-making, which is also benefit for him to entrench the corporate's assets. (Simpson and Gleason,1999)

Through the above empirical steps, this research can finally examine whether other information in Ohlson's equity valuation model can be replaced with corporate governance variables, and whether these variables have better explanatory power.

Figure 1 Research framework



Through the above empirical steps, this research can finally examine whether other information in Ohlson's equity valuation model can be replaced with corporate governance variables, and whether these variables have better explanatory capability for corporate equity value.

#### IV. Empirical Results

##### 4.1 Descriptive Statistics and Correlation Analysis

Table 2 Descriptive statistics of dependent and independent variables

<i>Variables</i>		<i>Mean</i>	<i>Median</i>	<i>Maximum</i>	<i>Minimum</i>	<i>Std. de</i>
<i>Dependent variables</i>						
Equity value	PRICE	13.99	10.63	43.8	1.88	10.
<i>Independent variables</i>						
Book value	BV	11.66	11.11	20.37	5.14	3.
Earnings per share	EPS	3.32	5.50	5.62	5.83	2.
The holding share ratio of directors and supervisors	DHSR	16.73	15.03	36.65	0.61	8.
The holding share ratio of corporate directors and supervisors	CDHSR	8.59	4.70	34.96	0.00	9.
The holding share ratio of outside directors	ODHSR	0.56	0.00	0.40	0.00	0.
The holding share ratio of the first and second stockholders	FSHSR	15.11	13.03	56.00	4.69	10.
The relative holding share ratio of the second stockholder	FDSHSR	53.66	50.13	99.19	0.00	31.
the number of invested company	NIC	7.78	7.50	20.00	0.00	4.
Equity investment ratio	ICR	32.35	29.44	123.42	0.00	29.
Participate in management	PM	0.34	0.00	1.00	0.00	0.
The holding share ratio of corporate managers	MHSR	1.81	0.52	11.82	0.00	2.

This paper first implements descriptive statistics and correlation analysis of variables chosen from sample companies with complete data. The following Table 2 shows these basic statistics of variables:

**V.****VI. Empirical Results****4.1 Descriptive Statistics and Correlation Analysis**

This paper first implements descriptive statistics and correlation analysis of variables chosen from sample companies with complete data. The following Table 2 shows these basic statistics of variables. Table 2 shows that average holding share ratio of directors and supervisors in Taiwan listed electronic companies is 16.73%, indicating that the board of directors has superiority over operational decision-making in listed companies. The holding shares ratio of corporate directors and supervisors and outside directors were 8.59% and 0.56% respectively, indicating that the listed electronic companies can operate independently and their boards of directors can play supervision roles.

The holding shares ratio of the first and second stockholders is 15.11%, and the relative holding shares ratio of the second stockholder to first stockholder is 53.66%. The two numbers indicate that in listed electronic companies, the equity is still concentrated in the first two stockholders. Furthermore, the holding share ratio of the second stockholder exceeds 50% of the first one, indicating the second stockholder can supervise and balances the first one.

There are 7.78 invested companies in average and the equity investment ratio is 32.35% in average, which is relatively lower. Compared with the listed companies in TWSE, the listed electronic companies in OTC have smaller share capital and listed only for a short-term. Therefore, investors and authorities are highly concerned about operation and management performance in these companies. These above reasons make sample companies more conservative in their equity investment, most of which were related to their own industries.

In term of participative management variable, there are 0.34 companies in which the chairman of the board also took the position of general manager. This implies that many sample companies applied such a mechanism to strengthen the leadership of corporate management. The average holding share ratio of managers is 1.81% and relatively lower. The result indicates that most managers provide assistance in corporate operations by their professional knowledge and skills, rather than being dominant over making decisions.

Table 3 shows Pearson correlation coefficients among the variables. the equity value (proxy variable: price) is positively influenced by the book value, earnings per share. Among the corporate governance variables, price has significant correlation to the the holding share ratio of outside directors and the number of invested company.

Table 3 Pearson correlation coefficients between dependent and independent variables

Variable	PRICE	BV	EPS	DHSR	CDHSR	ODHSR	FSHSR	FDSHSR	Nj
PRICE	1.000	0.593***	0.654***	-0.269**	0.004	0.409***	0.078	-0.104	0.25
BV	0.593***	1.000	0.477***	-0.194*	-0.108	0.214*	-0.142	-0.040	0.25
EPS	0.654***	0.477***	1.000	-0.104	0.059	0.256**	0.106	-0.198*	0.04
DHSR	-0.269	-0.194*	-0.104	1.000	0.767***	0.049	0.598***	0.156	-0.0
CDHSR	0.004	-0.108	0.059	0.767***	1.000	0.207*	0.683***	0.126	0.18
ODHSR	0.409***	0.214*	0.256**	0.049	0.207*	1.000	0.177	0.071	0.27
FSHSR	0.078	-0.142	0.106	0.598***	0.683***	0.177	1.000	-0.122	-0.0
FDSHSR	-0.104	-0.04	-0.198*	0.156	0.126	0.071	-0.122	1.000	0.14
NIC	0.259**	0.251**	0.047	-0.021	0.188*	0.277**	-0.054	0.141	1.00
ICR	-0.098	0.016	-0.118	0.111	-0.221*	0.055	-0.070	0.176	0.12
PM	0.040	0.018	-0.040	0.093	0.099	0.333***	0.271**	0.018	0.10
MHSR	0.270**	0.257**	0.103	-0.128	-0.166	0.545***	-0.120	0.252**	0.19

Notes: \*\*\*=p-value<0.01; \*\*=p-value<0.05; \*=p-value<0.10

The Variance Inflation Factor (VIF) of these variables are between 1.392~6.273 and smaller than 10. Hence, while analyzing by multiple regression analysis, the collinearity problem among the variables is not serious.

#### 4.2 Multiple Regression Model Analysis

This paper first adds corporate governance variables, book value and earnings per share into the empirical model, and then uses multiple regression to test the impact of these independent variables upon equity value. Table 4 shows the results of multiple regression.

1. Table 4 shows that the following independent variables have significant influences upon equity value and their influence directions are consistent with expectations: book value, earnings per share (below 1%) and the holding share ratio of the first and second stockholders (below 10%). Among the corporate governance features variables, only the holding share ratio of the first and second stockholders has influence on corporate value positively and significantly. With more equity centralized in two largest shareholders, the managers tend to make identical decisions which are helpful to operation performance, and improve corporate value. Our result is in support of the hypothesis 4.1.

Table 4 The result of multiple regression model

<i>Dependent Variables: Equity Value</i>				
<i>Independent Variables</i>	<i>Expected direction</i>	<i>Estimate coefficient</i>	<i>t statistic</i>	<i>VIF</i>
Intercept	?	3.610	0.649	-
BV	+	0.951	2.658***	1.50
EPS	+	1.928	3.243***	1.53
DHSR	+	-0.505	-2.231**	3.98
CDHSR	+	0.149	0.606	6.27
ODHSR	+	12.526	1.151	1.91
FSHSR	+	0.252	1.653*	2.57
FDSHSR	+	4.876	0.134	1.39
NIC	-	0.199	0.776	1.49
ICR	-	5.738	0.133	1.66
PM	?	-1.961	-0.792	1.47
MHSR	+	0.302	0.606	2.25
R <sup>2</sup> /Adj R <sup>2</sup>	0.663/0.566			

Notes: \* indicates at 10% significant level; \*\* indicates at 5% significant level; \*\*\* indicates at 1% significant level

- The following variable has significant impacts upon equity value, but their influence direction is not consist with expectations: the holding share ratio of directors and supervisors. It implies that the higher ratio would descease corporate value, rather than increasing the value. Our result is not in support of the hypothesis 1.
- The following independent variables have significant influences upon equity value and their influence directions are not consistent with expectations: the holding share ratio of corporate directors and supervisors and outside directors (in support of the hypothesis 2 and hypothesis 3), the relative holding share ratio of the second stockholder to first stockholder(in support of the hypothesis 4.2), the holding share ratio of managers(in support of the hypothesis 4.3), and participative management (in support of the hypothesis 6). The higher these ratios are, the more professional and independent the board of directors is, and the more efficient the supervision mechanism can be operated and the higer that corporate value can be promoted.
- The independent variables, including the number of invested company and equity investment ratio, have nonsignificant influence upon equity value

and their influence directions are not consistent with expectations. The result is not in support of the hypothesis 5. In other words, more invested company and higher equity investment ratio do not necessarily decrease corporate value. Oppositely, they might make contributions to improve corporate operation performances because of profits generated by invested company.

#### **4.3 Increasing Amount Explanatory Capability Analysis of Corporate Governance Variables**

Using decomposition method propose by Theil (1971), this article decomposes explanatory capability of regression model ( $\text{adj } R^2$ ) into following parts: (1) increasing amount explanatory capability of book value; (2) increasing amount explanatory capability of earnings; (3) increasing amount explanatory capability of corporate governance variables. The regression models are constructed as follows:

$$\text{Model 1: } MV = a_0 + a_1 BV + a_2 EPS$$

$$\text{Model 2: } MV = a_0 + \sum a_i CGFi$$

$$\text{Model 3: } MV = a_0 + a_1 BV + a_2 EPS + \sum a_i CGFi$$

Deducting  $\text{adj } R^2$  calculated by Model 1 from  $\text{adj } R^2$  calculated by Model 3, this paper shows the increasing amount explanatory capability of corporate governance for equity value. Model 1 was an equity valuation model explained by book value and earnings of corporate. Table 5 shows that after adding corporate governance variables, the  $\text{adj } R^2$  is improved to 56.6% in Model 3 from original 51% in Model 1. This result implies that explanatory capability of equity valuation model can increase by 5.6% after adding corporate governance variables. In addition, although Model 2 only takes corporate governance variables as independent ones,  $\text{adj } R^2$  is also up to 0.236 explanatory capability.

#### **IV. Conclusions**

The purpose of this article is to test six hypotheses whether corporate governance variables have explanatory capability of equity value by descriptive statistics, multiple regression analysis and increasing amount explanatory capability analysis. We choose listed electronic companies in Taiwan Over-The-Counter Security Exchange as samples.

Our empirical results show that for multiple regression model, after added corporate governance variables, the equity valuation model dominated by book value and earnings has substantial explanatory capabilities by  $\text{adj } R^2$  up to 0.566. Furthermore, two corporate governance including holding share ratios of directors and supervisors, holding share ratios of the first and second stockholders are significantly correlated with equity market value.

Table 5 Increasing amount explanatory capability of corporate governance variables

Model 1			Model 2			Model 3		
Independent Variables	Estimate Coefficient	t value	Independent Variables	Estimate Coefficient	t value	Independent Variables	Estimate Coefficient	t value
Constant	0.774	0.183	Constant	17.27	3.384	Constant	3.610	0.649
BV	1.126	3.199**	DHSR	-0.71	-2.407**	BV	0.951	2.658**
EPS	2.446	4.222**	CDHSR	0.27	0.844	EPS	1.928	3.243**
			ODHSR	20.93	1.469	DHSR	-0.505	-2.231*
			FSHSR	0.28	1.425*	CDHSR	0.149	0.606
			FDSHSR	-3.41	-0.719	ODHSR	12.520	1.151
			NIC	0.30	0.893	FSHSR	0.252	1.653*
			ICR	1.14	0.198	FDSHSR	4.876	0.134
			PM	-4.28	-1.327	NIC	0.199	0.776
			MHSR	0.76	1.172	ICR	5.738	0.133
						PM	-1.961	-0.792
						MHSR	0.302	0.606

Notes: \* means at 10% significant level; \*\* means at 5% significant level;

\*\*\* means at 1% significant level,

Model 1: adj R<sup>2</sup> = 0.510 (A)

Model 2: adj R<sup>2</sup> = 0.236 (B)

Model 3: adj R<sup>2</sup> = 0.566 (C)

Increasing amount explanatory capability of corporate governance variables : (C) – (A) = 0.056

By exploring previous literature, this paper proposes six hypotheses to test according to results of multiple regression model. Our findings are in support of all hypotheses except for hypothesis 1 and 5. Among nine corporate governance variables, most variables have influence on equity value and their influence directions are as expected except for three variables: holding share ratio of directors and supervisors, the number of invested company and equity investment ratio. In other words, the impact of three variables on equity value is not as expected. Namely, the higher holding share ratio of directors and supervisors doesn't necessarily promote corporate equity value. On the contrary, it increases the fraudulence probability because of confliction between

individuals' own interest and corporates' interest resulting from more concentrated ownership and management decision authority. Therefore, directors and supervisors are likely to make decisions against the corporate, which also is apt to decrease corporate values significantly. Thus, this variable is negatively significantly correlated with equity. This finding is not in support of the hypothesis 1. In addition, more invested companies and higher equity investment ratio don't necessarily decrease corporate equity value. On the contrary, two factors make contributions to operation performances because of profits generated by equity investment, and further promote corporate value. Therefore, two variables are positively insignificantly correlated with equity value. This finding is also not in support of the hypothesis 5.

With respect to increasing amount explanatory capability, our result finds that adj  $R^2$  is improved to 56.6% in Model 3 from original 51% in Model 1. This result implies that explanatory capability of equity valuation model can increase by 5.6% after adding corporate governance variables. Also, if we only take corporate governance variables as independent variables, the adjusted adj  $R^2$  has 23.6% explanatory capability.

In this article, our results verifies the conclusions proposed by Ohlson (1995) that in addition to financial information from corporate financial statements, other non-financial information also has to be taken into account in equity valuation model. For example, it's more necessary to add corporate governance variables into equity valuation model, and such variables can make the model's more complete and explanatory power. In view of practical business operation, this result also provides helpful information for corporate valuation and investment decisions.

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