



The Effects of Corporate Governance and Financial Leverage on MVE of Thai-Listed Companies

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Abstract

This research was a quantitative study on the effects of corporate governance mechanisms based on board responsibilities on financial leverage and market value of equity of the three industrial groups listed in the Stock Exchange of Thailand (SET), namely agro & food, property & construction, and technology. The objectives of this study were as follows: (1) to investigate corporate governance affecting financial leverage, (2) to investigate corporate governance affecting the market value of equity, and; (3) to investigate corporate governance affecting market value of equity through financial leverage. Data were collected over the period of 2010-2014 from Form 56-1 (financial statements) and annual reports of the three industrial groups, totaling 161 companies with 805 data entries. The independent variables representing corporate governance were board size, board composition, chief executive director/chair duality, board committees, institutional shareholding, shareholding of board members and board remuneration. Financial leverage and market value of equity were used as intervening and dependent variables respectively. This study then tested the research hypothesis by using Path Analysis, one of the Structural Equation Modeling (SEM) techniques, conducted by AMOS, the statistical program designed for analyzing the level of goodness of fit measures in SEM and to validate the harmony or consistency of the

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model with the variables. Based on the hypothesis testing results, corporate governance directly and indirectly affected financial leverage and market value of equity, and that corporate governance did not significantly affect market value of equity through financial leverage. Considering the direct and indirect effects, it could be interpreted that corporate governance mechanisms affected market value of equity both directly and indirectly, although the results of the examination of each parameter path line had a significant or insignificant influence.

Based on the results of this study, it is important to note that the efficient and effective implementation of good corporate governance policy depends on the board's responsibility to balance profitability of the business with the best practices that take into account the interests of all stakeholders. To widely promote the importance and the adoption of corporate governance, further studies should be done with incorporated companies, and small and medium enterprises, using primary data and other tools for measuring the performance of financial markets and market values, such as value added economics, increased cost of market value, and economic profit as well.

Keywords: Corporate Governance (CG), Financial Leverage (LEV), Market Value of Equity (MVE)

1. Introduction and Background of the Study

Business and social environments have changed drastically in ways that are affecting business performance. The management of any organization has to find ways to survive in a competitive environment and create a sustainable growth in the long run (Tsang, 2002). It is important that the stakeholders, including management, investors and

shareholders, know the factors affecting its performance. According to the Agency Theory, good quality of management information builds trust and expresses a professional way of doing business to its shareholders (Jenson and Meking, 1976). However, there are some problems relating to the conflicts of interest between principals and agents. Thus, good corporate governance (CG) mechanisms, as stated by the



Organization for Economic Cooperation and Development (OECD, 1961) should be used in monitoring and controlling the organization so that the organization will have a transparency and disclosure of information to all of the stakeholders.

CG is thus a mechanism expressing the relationship between managerial factors. It is also an important mechanism for business development because it helps to protect the country's economy and enhance moral and ethical behaviors for living in a community by creating a balance between business profitability or performance and the best practice for the society as a whole. The important activities are to supervise and monitor executives' responsibilities as well as to create satisfaction beyond the scope of work for regulatory bodies (Tricker, 1984; Black, Jang and Kim, 2002; Yeh, Lee and Ko, 2002). Besides, the OECD stated that the guidance and control systems allocate rights and responsibilities for assigning rules and regulations to a company's stakeholders, including committees, managers, shareholders and others. These systems help to monitor a company's progress

toward achieving their objectives and performance, and build the competitiveness and stability for sustainable growth in the long run. The research shows that, in the countries facing economic crisis, entrepreneurs had experienced financial and operational problems caused by inefficient and ineffective management: lack of good internal control, incapable of risk evaluation due to lack of reliable information, insufficient disclosure of information necessary for management, creation of accounting or financial statements that caused damage to investors and lack of good CG (Darus & Mohamed, 2001). Thus, in capital markets around the world, the CG concept is used in management and is considered an important component of social responsibility, thereby creating a good image of the organization and causing stakeholders to be treated fairly. This concept is in accordance with the conclusions of the 2003 World Economic Forum that CG was concerned with operating performance, corporate social responsibility (CSR) and transparency (Arora & Dharwadkar, 2011). Van den Berghe & Louche (2005) stated that

implementation of CG would add value to the business. Due to the importance of CG leading to growth, shareholders' trust and confidence in investment, shareholders' financial stability and the good image of the company, the researcher was therefore interested in studying the effect of CG on the MVE of Thai-listed companies in 2010-2014 in three industrial groups, namely, Agro & Food Industry (AGRO), Property & Construction (PROPCON), and Technology (TECH). In this study, variables (as CG mechanisms affecting MVE through LEV) were board size (BZ), board composition/non-executive directors (NED), chief executive officer/chair duality (DUALITY), board committee (BCMT), institutional shareholding (INSTSH), shareholding of board members (MANGSH), and board remuneration (BRMRT).

2. The Theoretical Concept

2.1 Agency Theory

This theory discusses the relationship between the shareholders, who are owners of capital (principals), and the management (agents), who act on behalf of the owners/principals in management. Thus, this concept

separates ownership and internal control in the organization. That is, the two parties (principals and agents) agree on management in which the agents act responsibly towards shareholders. Shareholders, as principals or owners, are at risk in the investment and are interested in their investment returns arising from the increased value of the business. Agents, as executives hired by shareholders or principals, pay attention to personal benefits in return, such as salary, bonus, welfare and reputation in their career. Agency Theory is, thus, a theory focusing on the highest profitability for stability and growth of business organizations. In this way, principals and agents can serve their self-interests in terms of the returns they expect from a business organization. Agency Theory was developed by Berle and Means (1932), as their book, entitled "The Modern Corporation and Private Property," showed the concept of separation of ownership and internal control in an organization. Later on, as business development grew, large companies needed management that could address the needs of large

enterprises. Thus, Agent Theory was developed to be used in management (Jensen & Mecking, 1976)

2.2 Stakeholder Theory

The importance of this theory is that it is the basic concept of organizational management which takes into account values and ethics to balance the conflicts between shareholders. Thus, organizational management must not focus only on maximizing profitability, but it must pay attention to the satisfaction of all stakeholders. This theory was developed by Barnard (1938) to support the idea of social responsibility, as detailed in his book entitled “The Functions of the Executive”. Later on, Freeman (1984) asserted that executives or managers needed to satisfy stakeholders, including employees, customers, suppliers and local community organizations. This was because they are affected both directly and indirectly by the success of the organization. This is in line with the definition offered by Post, Lawrence and Weber (2002) that stakeholders were affected by the policy setting and

implementation of the organization. Therefore, organizations must take responsibility and have a wider perspective about Stakeholder Theory.

2.3 Corporate governance (CG)

CG is a monitoring system that sets up the structure and management processes to be efficient, effective, transparent and verifiable in the operations. This leads to an increase in the value of the business and sustainable growth of the organization by taking into account the relationship between principals or shareholders and agents or executives, as well as all other stakeholders. CG is often associated with the agency problems and a separation of ownership from management for the purpose of internal control in the organization to be in accordance with the 2004 OECD Principles of CG, and consistent with the recommendations of the World Bank. Accordingly, governance mechanisms help to monitor the implementation of the concept of Agency Theory, promoting management with transparency, and verifying data and information disclosure to investors and

the public. Research done in the past studied significant effects of CG on firm performance (Klapper and Love, 2004) and found that CG affected firm performance and the value of equity.

2.4 Financial Leverage (LEV)

Financial Leverage in economics refers to the practice of using debts the business is under to obtain effective financial performance. Utilizing financial leverage varies according to the industry. Even in the same industry, there is debt in different capital structures. A high degree of financial leverage means high burden of interest payments, including a high burden of cost of debt. This is why companies must have a balanced financial policy and capital structure appropriate to the financial operations. Source of funding consists of three parts: (1) the shareholders' equity (2) preferred shares, and (3) liabilities. For their business stability in the long term. Azrbaijani, & San (2012) found that firms could improve their value and growth rates by varying the optimal ratio between equity and debt to finance their business activities. So there is a concept

of managing optimal capital structure, which can create the highest satisfaction of shareholders. This is consistent with the study of Chen, Cheng, He & Kim (1997), which found that capital structure was one of the key factors of corporate finance, both in theory and practice, as it affects the financial health of the company in achieving the maximization of shareholders' wealth.

2.5 Market Value of Equity (MVE)

MVE is an economic concept for measuring short-term risk since it is determined as cash value depending upon the current market price of outstanding shares as illustrated in the financial report. Also, MVE is an indicator of the perception of shareholders and all of other stakeholders that indicates the ranking of companies based on capital base, value of the business in the capital market, and the success of implementation. MVE is determined by the value assessed by investors from demand for buying and selling the securities in the market. Thus, MVE fluctuates over time and is influenced by the business cycle. MVE is highly valued



at the time of business expansion and less affected by market environment and economic recession. Also, MVE is an indicator of a company's success and is the easiest tool used to monitor exchange of stocks traded on the stock exchange. This tool is recognized and widely accepted. Many scholars studied the relationship between CG and MVE, and found that CG contributed to higher MVE. For example, Gomper (2003) found that a higher CG index contributed to a better return on the stock in the long term. Core et al (2006) examined the ownership structure and MVE and found a positive relationship, causing a worthy business to invest. Black, Love & Rachinsky (2006) found that the level of CG was an effective measure to predict the rising of stock prices. Black, Jang & Kim (2006) stated that the overall CG index is

an important device for describing the trend of MVE.

3. Objectives of the study

The objectives are: (1) to investigate CG-affected financial leverage of Thai-listed companies in 2010-2014; (2) to investigate how CG affected MVE of Thai-listed companies in 2010-2014; and (3) to investigate whether or not CG affected MVE through financial leverage of Thai-listed companies in 2010-2014.

4. Conceptual Framework

The conceptual framework of this study was derived from literature review in which related theories and related research were included, such as textbooks, articles, and related manuscripts. There were seven independent variables, one dependent variable and one intervening variable as shown in Figure 1.

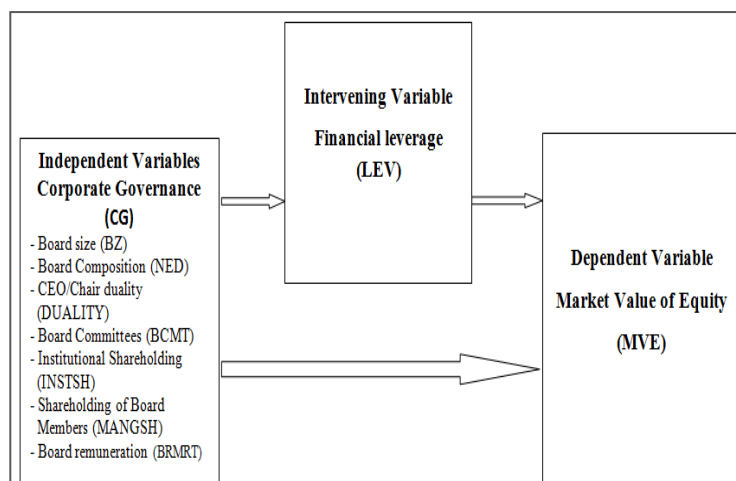


Figure 1. Conceptual Framework of the study

5. Definition of Terms

The variables in this study comprise CG, LEV and MVE. The definitions of specific terms and phrases for the purpose of this current research are as follows;

5.1 Corporate governance (CG): A system for guiding and controlling the allocation of rights and responsibilities for decision making and creating a balance of the financial system for doing business efficiently and effectively. The details of each component of CG are as follows:

1. Board size (BZ) is measured as a logarithm of the number of board members.

2. Board Composition (NED)/

non-executive directors is calculated as the number of non-executive directors divided by total number of directors.

3. CEO/Chair duality (DUALITY) is a dummy variable defined as 0 if the CEO is chairman; otherwise, it takes a value of 1.

4. Board Committees (BCMT) is measured as the logarithm of the number of board-appointed committees.

5. Institutional Shareholding (INSTSH) is measured as the percentage of shares held by institutions as disclosed in the annual financial reports.

6. Shareholding of Board Members (MANGSH) is measured as the percentage of shares held by members of



the board disclosed in annual financial reports.

7. Board Remuneration (BRMRT) is the average (per capita) cash remuneration, paid to executives, estimated as the ratio of executive compensation to the total number of executives.

5.2 Financial Leverage (LEV), or using debts to finance the business leverage, is quantified by using total liabilities divided by total assets

5.3 Market Value of Equity (MVE) is a concept for measuring short-term risk; MVE is calculated by using the closing price at the end of the year multiplied by the number of listed shares.

6. Benefits of the study

6.1 This study attempted to introduce variables representing CG as publicly recommended by OECD principles, using a judgmental checklist. The researcher believes that this study will contribute to understanding how CG affects LEV and MVE of Thai-listed companies for sustainability leading to positively significant outcomes. Thus, the CG concept was adopted in the process of CG implementation, especially in the

areas of owner structure and board responsibilities.

6.2 This study investigated CG data in the comprehensive environmental context. It is believed that different companies will use different criteria for good CG. Therefore, the results of this study can be used as a guideline for setting up efficient and effective CG strategies.

7. Research Methodology

This study was a Descriptive Correlational Research, using inferential statistics in the aspect of the Structural Equation Model (SEM) to analyze several variables concurrently without having to analyze each of them separately as in regression analysis. SEM studies linear relationship structure by using the technique of causal relationships between direct and indirect influences (Marcoulider and Hershberges, 1977). To achieve its objective and to test its hypotheses, this study analyzed regression, the relationships of variables, covariance, the correlations between independent variables and both intervening and dependent variables, and the consistency

of the research hypothesis model created using empirical data.

7.1 Analysis results of Thai-listed companies' data used as sample of this study

In this research, the researcher conducted a study of the population comprising companies listed on the Stock Exchange of Thailand (SET). Based on information publicly available from the database of the SET regarding its classification criteria of industry and business structures (last updated on February 19, 2016), the researcher found that 633 companies were classified into a total of eight industrial groups (as of October 16, 2016). The researcher studied the performance of the Thai companies listed in 2015 and the quarter 4/2015 (Siriyot Chutanonth and Paktida Kamthong, 2016) published in SET. It was found that the business situation of the Thai-listed companies in 2015 was affected by lower world oil prices, the slowdown of domestic economy, the weakening of the Thai baht, and the uncertainty of the political situation in the country. The results indicate that net profit for 2015 decreased by 11.2%

compared to 2014; and that only the agricultural and food industry (Agro & Food Industry: AGRO), property & construction (PROPCON) and technology (TECH) had a growth rate of net profit as the top three respectively. Their growth rate of net profit increased by 5.7% over 2014. For these reasons, the researcher used these top three industries to be the universe for the sampled companies in this study. The MAI group was not used because of the difference in registered capital, which might skew the results.

Quantitative data were collected from 161 qualified companies with 805 data entries, as follows: 43 companies (26.7%) from AGRO, 79 companies (49.1%) from PROPCON, and 39 companies (24.2%) from TECH.

7.2 Analysis of basic characteristic of variables used in this study

The secondary data were saved by using Microsoft Excel Program and preliminarily analyzed by using descriptive statistics with the SPSS program by industry group and type of variables in order to examine the data characteristics. The data were checked to see whether their distribution is

normal or not. Also, the data were checked to see if there were abnormal or extreme values that needed to be adjusted. The results of the data review showed that the distribution was not normal due to the nature of the data collected from secondary data sources, such as firm performance and annual reports. Those data were empirical and were different in nature from data collected by questionnaire or other

tools. The researcher modified the different quantitative data to reduce irregular distributions by using log10 conversion with the BCMT, BRMRT, LEV and MVE, resulting in the following new variables for this study: logBCMT, logBRMRT, LogLEV and logMVE, with normal or nearly normal distribution. The results of the preliminary data analysis are shown in Table 1 below.

Table 1: Descriptive Statistics of Variables (805 data) after using the log10 conversion

Variables	Mean	Minimum	Maximum	Std. Deviation	skewness	kurtosis
BZ	9.93	5	21	2.45	1.04	2.03
NED	64.07	0	100	18.37	-.57	1.34
DUALITY	0.83	0	1	0.38	-1.72	.97
LogBCMT	1.81	0	2.61	.20	-4.92	42.29
INSTSH	6.38	0	74.22	12.41	3.09	10.52
MANGSH	18.16	0	95	20.19	1.22	.95
LogBRMRT	6.33	0	7.80	1.03	-4.67	24.14
LogLEV	-.39	-2.59	.78	.36	-2.31	8.61
LogMVE	9.47	7.22	11.87	.80	.27	.30

The results of using descriptive statistics to analyze the variables used in this study showed a pair of the lowest and the highest statistical values. That is, among the mean values, logLEV had the

lowest mean value of -.39, and NED had the highest mean value of 64.07. Among the minimum values, logLEV had the lowest minimum value of -2.59, and logMVE had the highest minimum value

of 7.22. Among the maximum values, logLEV had the lowest maximum value of .78, and NED had the highest maximum value of 100. Among the standard deviation values, logBCMT had the lowest standard deviation value of .20, and MANGSH had the highest standard deviation value of 20.19. Among the skewness values, logBCMT had the lowest skewness value of -4.92, and INSTSH had the highest skewness value of 3.09. Among the kurtosis values, logMVE had the lowest kurtosis value of .30, and logBCMT had the highest kurtosis value of 42.29. The data were empirical data from publicly-disclosed in financial reports. They were quantitative data derived from the actual data which were different from

quantitative data collected by using a questionnaire using ordinal/rating scales. Values were adjusted to reduce irregularities of the data by applying log function and checking the relationship between variables by graph plotting to simplify linear regression analysis and by using both histogram and box-plot to analyze the quantitative data to see whether a normal distribution of data was obtained. The researcher found that the empirical data of the variables used in this study were nearly normally distributed. The researcher then conducted an analysis to find the correlation coefficient of variables, pair by pair. The results of that analysis are shown in Table 2 below.

Table 2: Correlation Matrix of CG, LEV and MVE

	BZ	NED	DUALITY	Log BCMT	INSTSH	MANGSH	Log BRMRT	LogLEV	LogMVE
BZ	1.000								
NED	.172**	1.000							
DUALITY	-.037	-.247**	1.000						
LogBCMT	-.193**	-.242**	.292**	1.000					
INSTSH	.039	-.055	-.011	-.005	1.000				
MANGSH	-.100**	-.084*	.107**	.188**	-.213**	1.000			
LogBRMRT	.005	-.068	-.009	.014	.130**	-.040	1.000		
LogLEV	.014	-.110**	.030	-.099**	.085*	-.066	.073*	1.000	
LogMVE	.298**	.139**	-.032	-.098**	.223**	-.232**	.131**	-.033	1.000

The values of correlation coefficients between variables ranged from -.247 to .298, indicating that each pair had a low inter-relationship. Based on the results of the Correlation Matrix analysis, it could be concluded that the variables used in this study had low inter-relationships and were independent of each other, indicating that they could be further analyzed by using inferential statistics.

7.3 Results of data analysis for hypothesis testing using inferential statistics

The researcher analyzed the expected model to see whether it is in

harmony with the empirical data, by describing the statistical values of hypothesis testing: Chi-square = .001 (in the AMOS program called CMIN) with Degrees of Freedom = 3 and Probability level = p-value = 1.000 indicating that the analysis results are consistent. In addition, CMIN/DF = .000 shows that the analysis results by the model is in harmony with the empirical data. When considering the RMSEA value of .000, it can be concluded that there is no deviation of the analysis results from the expected model, indicating that the results are in harmony with the empirical data. (The RMSEA value is the value used to check for

deviations or differences to degrees of freedom according to the model expected to be in harmony with the empirical data. The value should not exceed 0.05.) Considering that the CFI = 1,000 with NFI = 1,000, the result value was greater than 0.95, and the CFI and NFI values were between 0 and 1, it can be concluded that there is the harmony between the model and the empirical data. The GFI = 1,000 with AGFI = 1,000, and the result value of greater than 0.95 and $GFI \geq 0.95$, which also suggests that the model is in harmony with the empirical data.

The results of examining the consistency of the model with the empirical data by using inferential statistics showed that the model was in harmony with the empirical data. The coefficient forecasting the effects of CG variables on MVE was equal to .18, indicating that the CG variables in the model could explain 18% of the variance of MVE, while the coefficient forecasting the effects of CG variables on LEV was .04, indicating that the CG variables in the model could explain 4% of the variance of LEV.

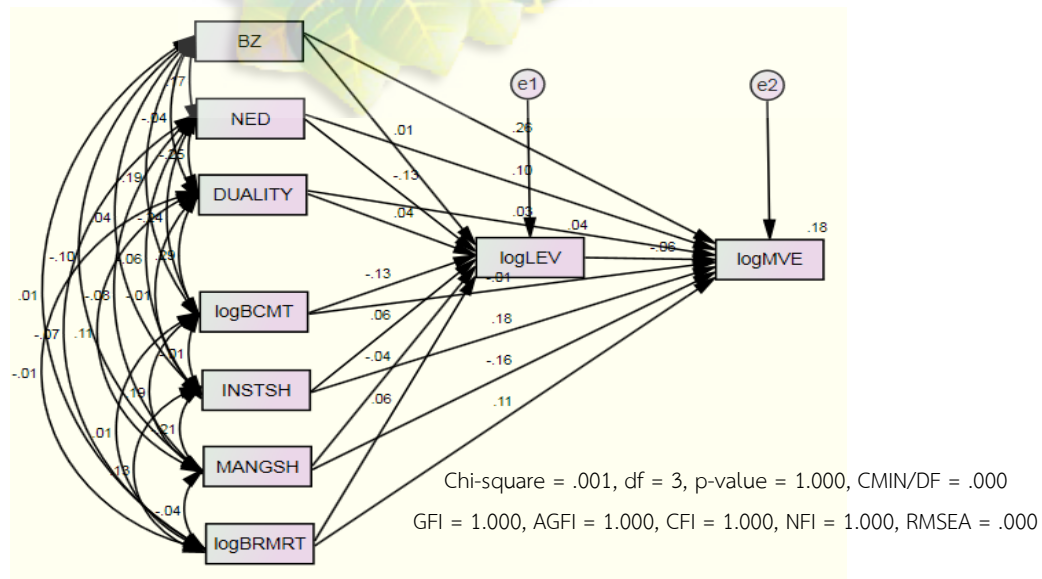


Figure 2. Model of the Relationship among CG, LEV and MVE

The parameter validation (in the AMOS program, CR -- Critical Ratio -- of each variable) in analyzing the influence path of variables and in checking the standard error (SE) was performed after having checked the model's harmony/consistency in overall. The results showed that the expected model was in harmony with the empirical data and had a relationship value with each variable having some significant parameters, indicating that the influence of CR and SE values needed to be checked. The

results of the parameter validation found that seven pairs of variables had significant influence/effect on each other at the statistical significance level of $p < 0.05$. That is, any other pair of variables had influence/effect on each other, s above of seven pairs. Other pairs of variables had no statistical significance or statistical non-significant influence/effect on each other. In addition, the direct, indirect, and overall influences/effects of CG on LEV and MVE could be found in the analysis (see Table 3).

Table 3: Regression Results of the Relationship among CG, LEV and MVE

	Variable	STD Estimate	S.E.	C.R.	P-value
logLEV	<--- BZ	.006	.005	.161	.872
logLEV	<--- NED	-.129	.001	-3.518	***
logLEV	<--- DUALITY	.042	.035	1.151	.250
logLEV	<--- logBCMT	-.134	.069	-3.568	***
logLEV	<--- INSTSH	.062	.001	1.737	.082
logLEV	<--- MANGSH	-.040	.001	-1.109	.267
logLEV	<--- logBRMRT	.056	.012	1.614	.106
logMVE	<--- BZ	.258	.011	7.862	***
logMVE	<--- NED	.096	.001	2.798	.005
logMVE	<--- DUALITY	.025	.072	.747	.455
logMVE	<--- logBCMT	-.009	.143	-.261	.794
logMVE	<--- INSTSH	.175	.002	5.306	***
logMVE	<--- MANGSH	-.162	.001	-4.851	***
logMVE	<--- logBRMRT	.112	.025	3.458	***
logMVE	<--- logLEV	-.062	.072	-1.896	.058

Table 4: Analysis of Influences/Effects where the Direct, Indirect, Overall Influences/Effects of CG on LEV and MVE Could Be Found

Variables		Total	Indirect	Direct	P-Value	C.R.	significant		Insignificant
Independent	Dependent	Effects	Effects	Effects	(DE)		positive	negative	
BZ	logLEV	0.001	0.000	0.001	.872	.161			✓
NED	logLEV	-0.003	0.000	-0.003	***	-3.518		✓	
DUALITY	logLEV	0.040	0.000	0.040	.250	1.151			✓
logBCMT	logLEV	-0.246	0.000	-0.246	***	-3.568		✓	
INSTSH	logLEV	0.002	0.000	0.002	.082	1.737			✓
MANGSH	logLEV	-0.001	0.000	-0.001	.267	-1.109			✓
logBRMRT	logLEV	0.020	0.000	0.020	.106	1.614			✓
BZ	logMVE	0.085	0.000	0.085	***	7.862	✓		
NED	logMVE	0.005	0.000	0.004	.005	2.798	✓		
DUALITY	logMVE	0.048	-0.006	0.054	.455	.747			✓
logBCMT	logMVE	-0.003	0.034	-0.037	.794	-.261			✓
INSTSH	logMVE	0.011	0.000	0.011	***	5.306	✓		
MANGSH	logMVE	-0.006	0.000	-0.006	***	-4.851		✓	
logBRMRT	logMVE	0.084	-0.003	0.087	***	3.458	✓		
logLEV	logMVE	-0.137	0.000	-0.137	.058	-1.896			✓

Table 4 shows the coefficients of the total/overall, direct and indirect influences/effects of CG on LEV at the statistical significance level of $p < 0.05$. When considering the influence/effect paths, it was found that the NED and logBCMT had negative direct influences/effects with the value of -0.003 and -0.246 respectively. The remaining variables had statistically insignificant positive direct influences/effects, namely, BZ, DUALITY, INSTSH and logBRMRT had statistically

insignificant positive direct influences/effects with the values of 0.001, 0.040, 0.002 and 0.020 respectively, whereas MANGSH had a statistically insignificant negative direct influence/effect with the value of -0.001.

Considering the influence of CG variables on MVE at the statistical significance level of $p < 0.05$, it was found that BZ, NED and INSTSH had positive direct influences/effects with the values of 0.085, 0.011 and 0.087 respectively,

whereas MANGSH had a negative direct influence/effect with the value of -0.006. DUALITY had a statistically non-significant positive direct influence/effect on MVE with the value of 0.054. By contrast, logBCMT had a statistically insignificant negative direct influence/effect on MVE with the value of -0.037. Finally, when determining the influences/effects between logLEV and logMVE, it was found that both variables had negative direct influences/effects on each other with the value of 0.137.

8. Conclusions

This study aimed to investigate the effects of CG on MVE through LEV. The objectives were: 1) to investigate how CG affects LEV, 2) to investigate how CG affects the MVE, and 3) to investigate whether or not CG affects MVE through LEV. The core research question was: How did Thai-listed companies' CG affect their LEV and MVE?

CG was comprised of independent variables such as board size, board composition/non-executive directors, chief executive officer/chair duality, board committee, institutional shareholding,

shareholding of board members, and board remuneration. The dependent variable was MVE, and LEV was a mediating variable.

There were 15 hypotheses including: H1: board size had a positive effect on LEV; H2: board size had a positive effect on MVE; H3: board composition had a positive effect on LEV; H4: board composition had a positive effect on MVE; H5: chief executive officer/chair duality had a positive effect on LEV; H6: chief executive officer/chair duality had a positive effect on MVE; H7: board committee had a positive effect on LEV; H8: board committee had a positive effect on MVE; H9: institutional shareholding had a positive effect on LEV; H10: institutional shareholding had a positive effect on MVE; H11: shareholding of board members had a positive effect on LEV; H12: shareholding of board members had a positive effect on MVE; H13: board remuneration had a positive effect on LEV; H14: board remuneration had a positive effect on MVE; and H15: CG had a positive effect on MVE through LEV.

Data were collected on Thai companies listed on the SET during 2010

to 2014 in three industrial groups: (1) Agro & Food Industry, AGRO; (2), Property & Construction, PROPCON; and (3) and Technology (TECH). The final sample included 161 companies with 805 complete data units.

This study used descriptive statistics comprising frequency, percentage, maximum, minimum, mean, standard deviation, skewness and kurtosis. The analysis showed that the data were not normally distributed because of the skewness and kurtosis values of some variables. Thus, the data needed to be adjusted. Natural logarithms were applied to four variables including board committee, board remuneration, LEV and MVE in order to normalize the distribution. The mean board size, measured as a logarithm of the number of board members, was 9.93. The board composition/non-executive directors, calculated as the number of non-executive directors divided by total number of directors, was 64.07. The chief executive officer/chair duality factor was set as a dummy variable, and given a value of 0 if the CEO is chairman and 1 if not. The result for that measure was 0.83.

The board committee, as measured by the logarithm of the number of board appointed committees, was 1.81. The institutional shareholding, as measured by the percentage of shares held by the institution, was 6.38. The shareholding of board members, as measured by the percentage of shares held by members of board, was 18.16. The board remuneration is the average (per capita) cash remuneration paid to executives, estimated as the ratio of executive compensation to the total number of executives, was 6.33. LEV was measured by use of debt to finance business leverage. This variable was quantified by using total liabilities divided by total assets. The value for this factor was -.39. MVE was calculated by using the closing price at the end of the year multiplied by the number of listed shares. The value for this factor was 9.47.

The research hypotheses were tested by using Path Analysis. This involved the structural equation modeling (SEM) technique, conducted by AMOS, to validate the harmony or consistency of the model. Hypothesis testing was done by applying Chi-square = .001, Degrees of Freedom = 3 and

Probability level = p-value = 1.000, which indicates that the analysis results are consistent. In examining the consistency/convergence of the research hypothesis model with the empirical data by using Chi-square, degrees of freedom, p-value, and critical ratio (as parameter validation), harmony was found. The results could answer the research question that CG mechanisms influence LEV and MVE, and MVE is manifest through LEV. Although the results of the examination of each path line of the parameter had a significant or insignificant influence, this could be explained by considering the direct and indirect effects that CG mechanisms had on MVE.

That is, CG had a significant negative influence on LEV for board composition/non-executive directors and the board committee. In other words, the increase in the proportion of board members/non-executive directors and the board committee caused a decrease in LEV. These results are in line with those found by Wen (2002), Weir & Laing (2001) and Pfeffer & Salancick (1978) who said that non-executive directors help to monitor performance and to

build investor confidence. This contributed to fundraising by lower financing costs. In addition, it was found that CG mechanisms have an insignificant direct effect on LEV, including board size, chief executive officer/chair duality, institutional shareholding, shareholding of board members, and board remuneration. This suggests that CG played an important role in increasing the value and growth of the company, causing the right change in the business. These results are consistent with those found by Kleiman (2000) and Darweesh (2015), who said that the efficiency of management would make organizations more efficient in their operations through appropriate management remuneration/compensation resulting in effectiveness in organizational performance and contributing to reducing corruption.

9. Discussion of Research Findings

These results can be summarized in the following way: CG mechanisms affected MVE through LEV of Thai-listed companies in 2010-2014. That is, CG mechanisms had positive and negative significant effects in improving LEV. Using the seven corporate variables/mechanisms,

this study supports the CG principles that OECD recommends and has encouraged to be adopted as guidelines by which the business sector applies transparency, morality, and ethics into practice, showing responsible management of the executives. Therefore, the research results are important guidelines in formulating CG policy (Darweesh, 2015).

Lastly, the results of this research support Agency Theory. According to this theory, the role of business ownership and management should be rewarded in the same direction due to the fact that business owners and investors are subject to investment risks, while executives or management have risk in making decisions. However, both sides focus on the highest profit for their own gain, despite the problems cited in Agency Theory. This is in line with the findings of Shin-Ping and Hui-Ju (2011), who stated that CG was a tool that could alleviate organizational problems, help manage the organization's efficiency, protect investors' rights and create wealth by taking the benefit of all stakeholders into account. In other words, under both Agency Theory and Stakeholder Theory,

the efficient and effective promotion of CG depends upon the responsibilities of the board of directors and management for decision making and implementing CG policy and strategies by creating a balance between business profitability and the best practice for the society as a whole, leading to the growth of the economy of the country (Vintila & Gherghina, 2012, Kumar & Singh, 2012).

10. Limitations of the Study

1. This study purposely chose three groups of industrial companies: Agro and Food Industry, Property and Construction, and Technology, and the dataset in this study covered the period of 2010-2014. These companies differed in terms of registered capital, administration system, and external environment. These were factors that made their performance differ, and which could affect the results in different ways.

2. This study used publicly-available secondary data under the rules and regulations of the SET. This was an empirical study using archival data. Different research methodologies might reveal different trends. A study using

qualitative methods of data collection, such as in-depth interviews, should be considered.

11. Future Research

This study found that CG of Thai-listed companies in 2010-2014 affected MVE through LEV. That is, the seven independent variables representing CG mechanisms (board size, board composition/non-executive directors, chief executive officer/chair duality, board committee, institutional shareholding, shareholding of board members and board remuneration), with LEV as an intervening variable, and MVE as dependent variable, had direct and indirect influence on one another. This finding supports CG principles, in line with OECD recommendations, which should result in firm performance efficiency and the promotion of morality and ethics in society. Further research based on the results of this study are recommended as follows:

1. Future studies could expand the population and sample scope to incorporate companies, and small and

medium enterprises, widely promoting the importance and the adoption of CG.

2. Future research may increase or change the collection of data from secondary sources to primary sources. This may have the effect of enhancing the potential of research and give it wider reach and access to effective governance mechanisms.

3. Variables in other categories of good CG should be studied to promote the development of modern CG, thereby leading to the development of CG systems for efficient and effective management and enhancing good business morals and ethics.

4. Future studies should measure the performance of financial markets and market values with other tools, such as value-added economics, increased cost of market value, and economic profit, among others. This may be helpful for investors and information management, thereby giving useful information for investors and for use as business management information for the satisfaction of all stakeholders.

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