

# Earnings Quality, Corporate Governance Structure and Corporate Social Performance of Manufacturing Companies Listed on the Stock Exchange of Thailand

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## Abstract

The objective of this study is to investigate the relationship between earnings quality, corporate governance structure and corporate social performance (CSP) emphasizing on 317 manufacturing companies listed on the Stock Exchange of Thailand (SET). Earnings quality is calculated from four measurements while corporate governance structure is represented by ownership concentration, foreign ownership, board independence and CEO duality. In this study, CSP disclosure index is constructed in accordance with Thai institution guideline based on GRI (Global Reporting Initiative) framework in order to assess the extent of CSP. Regression analysis reveals a significant positive relationship between earnings quality and CSP. The result also indicates a significant positive relationship between ownership concentration and CSP. It implies that ethical and transparent character of Thai companies and ownership concentration contributes to CSP commitment.

**Key words:** Earnings Quality, Corporate Governance, Corporate Social Performance

## Introduction

Previously, social responsiveness neither involved corporate strategic goal nor contributed to corporate value. Under agency theory, there are only capital owners and managers influencing corporate performance (Jensen & Meckling, 1976). Consequently, business operation has produced negative effects related stakeholders such as air pollution, degradation of natural resources, child labor, discrimination, breach of trade agreement, corruption, customer fraud, and so on. These problems result from being reluctant to stakeholders and eventually turn back to interrupt corporate wealth and survival (e.g. prosecution, protesting, boycott and lobbying). Under stakeholder theory, companies are advised that they have obligations not only with owner's capital but also other stakeholders who are affected from business performance (Clarkson, 1995). Therefore, other stakeholders have currently influenced companies to exhibit their social performance along with financial performance (Darus et al., 2014: 179). In the literature, CSP is defined as "a business configuration of principles of social responsibility, processes of social responsiveness, and policies, programmes, and observable outcomes as they relate to the company's societal relationships (Wood, 1991: 693). Thus, this is challenging companies on how to implement these concepts in their real life. Under legitimacy theory, companies select to report CSP

information to legitimize various aspects of their companies. Moreover, the purpose of reporting CSP is also reflecting managerial discretion of public acceptance by disclosing CSP information to stakeholders (Deegan, 2002: 282-283). However, mobility of CSP needs quality accounting information to support assessment of financial position and effective allocation of resources. Earnings quality is an important characteristic of corporate accounting information quality, representing managerial ability (Demerjian et al., 2013) and level of corporate commitment to business ethic (Choi & Pae, 2011). Additionally, corporate governance structure not only plays an important role in creating corporate value (Pasopa, 2018; Tunpornchai & Hensawang, 2018; Thunputtadom et al., 2018) but also ensures that benefit of all stakeholders will be embed in making decision regarding corporate strategy, policies, and performance (Fuente et al., 2017: 739). Thailand faces problems of social change and environmental degradation not different from other countries. As a United Nations (UN) member, Thailand has adopted the 2030 Agenda for Sustainable Development with its 17 Sustainable Development Goals (SDGs) covering development of economic, social, and environment features since 2015. As a result, in the year 2015 both public and private sectors paid greater attention to CSP than the previous years e.g. the strategic of supporting corporate social responsibilities launched by Ministry of Social Development and Human Security, training course for enhancing SDG sustainability report by THAIPAT Institute; and commencing CSP analysis by analyst. Nowadays, various aspects of corporate characteristics possibly related to the level of CSP information disclosure have been of interest among researchers but their results are still not consistent (Almahrog et al., 2018; Habbash, 2016; Jizi et al., 2014; Khan et al., 2013; Kim et al., 2012). Hence, this study investigates the relationship between earnings quality, corporate governance structure and corporate social performance of companies in the Stock Exchange of Thailand. Four popular measurements of earnings quality are employed in order to robust test the results of the relationship between earnings quality and corporate social performance. This study focuses on manufacturing companies because their performance source many visible problems in the society and they have incentive to social responsiveness in several ways regarding the requirements of laws and regulations. Therefore, the result of this study will enrich CSP literature especially, in emerging economy which leads to reduced negative effects of doing business in Thailand.

## **Research Objectives**

The objective of this research is to investigate the relationship between earnings quality, corporate governance structure and corporate social performance of manufacturing companies listed on the Stock Exchange of Thailand.

## **Literature Review**

### **Earnings Quality and Corporate Social Performance**

There are various opinions helpful for better understanding about the relationship between earnings quality and CSP. Some studies refer to ethical and information asymmetry perspectives to reason why earnings quality probably relate to CSP. Chun (2005: 270-281) pointed out links between virtue ethical character and business performance. An ethical company usually expresses character traits in manner, in compliance with principles of honest, fair reliable, trustworthy commitment to corporation's stakeholder. For performance, the ethical company will not only provide financial performance but also social performance. Thus, under ethical perspective, an ethical company will equal both interest of internal stakeholder by reporting high earnings quality and external stakeholder by committing to corporate social performance. For information asymmetry perspective, when magnitude of CSP is measured through the level of CSP information disclosed in corporate publication, the

relationship between earnings quality and CSP information disclosure could be complementary or substitutive. The former, relation between earnings quality and information disclosure will be positive while later, relation between earnings quality and information disclosure will be negative (Francis et al., 2008: 57). Additionally, the negative relation can point to opportunistic managerial behavior as well (Prior et al., 2008: 163). Previous studies have found a positive relationship between earnings quality and CSP (e.g., Almahrog et al., 2018; Gras-Gil et al., 2016; Blanco et al., 2014; Pyo and Lee, 2013; Kim et al., 2012; Francis et al., 2008) whereas some studies have found a negative relationship (e.g., Grougiou et al., 2014; Prior et al., 2008). As the results of the 2014 conceptual framework for financial reporting effective in 2015, “Decision usefulness” characteristics were introduced for preparing and presenting financial statement in Thai context. Since the faithfulness becomes key characteristics of decision usefulness and accruals quality represents the faithfulness of financial reporting (Yohan, 2017:83), companies must pay more attention for accrual quality. Under stakeholder theory and ethical perspective, responding equally to interest of internal and external stakeholders are critical characteristics of an ethical company. Companies with high reported earnings quality regarding the 2014 conceptual framework for financial reporting will highly engage in social responsibility as well. Thus, the following hypothesis is formulated:

H1. There is positive relationship between earnings quality and corporate social performance.

### **Ownership Concentration**

There are evidences from theory of firm regarding to conflict of interest between owner and manager more likely derived from low ownership concentration. On the other hand, high ownership concentration will reduce conflict of interest between owners and managers because controlling shareholders have enough motivation to direct and control managers to do as their interests. Besides, Matten & Moon (2008: 407) argued that national differences in CSP characterized by the degree of discretion owners permit managers in running the company. A number of researchers have paid attention to seek empirical evidence of the relationship between ownership concentration and CSP. Roberson et al., (2009: 621-622) found that nature of companies listed on the stock exchange in Turkey was mostly shaped by ownership concentration and this structure had a significant effect on CSP especially, philanthropic activities. Regarding agency theory, several studies argue that powerful ownership concentration whose reputation related to the firm has awareness on social responsibility (i.e., overinvesting in SR expenditure, deliberating CSR policy) especially in case such performance leads to their reputation as good citizens, even though probably creating burden to other shareholders (Barme & Rubin, 2010; Crisóstomo & Freire, 2015). Empirically, several studies, including Habbash, (2016); Crisóstomo & Freire, (2015); Majeed et al., (2015) found a positive relationship between ownership concentration and CSP disclosure whereas Hussainey et al., (2011) could not find a relationship between ownership concentration and social disclosure. Accordingly, prior studies have found that ownership concentration is common in Thai context and mostly is dominated by family ownership. In light of theory of firm and previous literature, controlling shareholders expect long-term benefit from companies and they have incentive to increase CSP level in order to enhance their reputation by compliance with regulations of protecting various stakeholders. Thus, the following hypothesis is formulated:

H2. There is positive relationship between ownership concentration and corporate social performance.

### **Foreign Ownership**

Hofstede's research revealed that different cultural backgrounds caused differences between individuals. Additionally, Ho et al., (2012: 429) indicated that national culture, geographic region, and level of economic development linked to differences in CSP. This is attributed to

understanding the different value and belief of foreign ownership toward CSP. Foreign investors likely to be long term oriented, will pressure local firm to practice CSP so as to signal their legitimacy and responsibility. Researchers have found a positive relationship between foreign ownership and CSP in several countries i.e., Korea (Oh et al., 2011), Egypt (Soliman & El Din, 2012) and Bangladesh (Khan et al., 2013). In other hand, Zeng et al., (2011) could not find a relationship between foreign ownership and CSP disclosure. In Thai context, although foreign ownership restrictions will are obstacles for foreign investors to hold share; the Thai Securities Depository Corporation was established to relieve this problem for foreign investors to own shares. Thus, the following hypothesis is formulated:

H3. There is positive relationship between foreign ownership and corporate social performance.

### **Board Independence**

Based on agency theory, conflict of interest can be reduced by the board of directors because the board of directors has fiduciary duty to direct and monitor managers. An effective board consists of mostly non-executive directors so that their opinion will be free from inside directors (Fama & Jensen, 1983). Independence is crucial characteristic of board of directors ensuring all stakeholders that their interest will be responded to strategic planning step throughout implementing step. Further, their skills and expertise ensure all stakeholders that company will be effectively monitored and controlled. Numerous empirical evidences revealed a positive relationship between board independence and CSP disclosure such as Fuente et al, 2017; Habbash, 2016; Jizi et al.,2014; Khan et al., 2013; Uyar et al.,2013; Dunn & Sainty, 2009. However, Ho & Wong, 2001; Haniffa & Cooke, 2002; Hossain & Reaz, 2007 could not find a relationship between proportion of independent directors on board and voluntary disclosure. In Thailand, related parties have increasingly perceived the importance of board independence as a major corporate governance structure. Thai listed company is required by the government agency to maintain minimum proportion of independent directors on board. Besides, the SET provides principles of corporate governance for Thai listed company to comply or explain basis to keep the number of independent director as regulatory require or exceed. Thus, the following hypothesis is formulated:

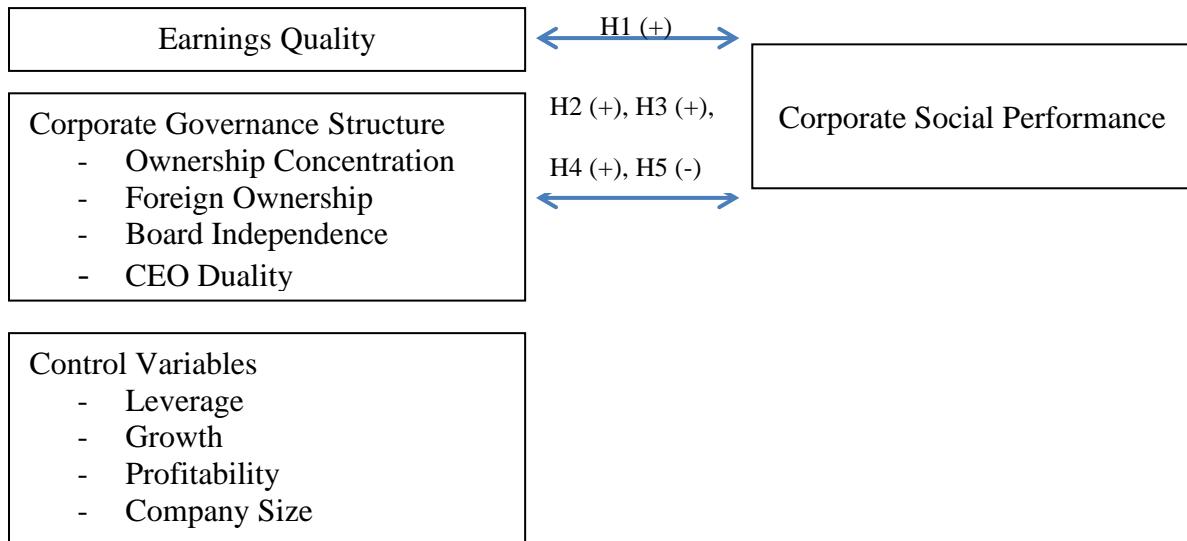
H4. There is positive relationship between board independence and corporate social performance.

### **CEO Duality**

Agency theory suggests that managerial opportunistic behavior is likely to impact on the degree to which companies engage in social activities and CSP disclosure. CEO duality is a source of managerial power due to board of directors being unable to properly act as mechanisms for balancing CEO power. CEO duality could influence the board's monitoring ability by constraining the information movement and hence reduces the board's independent oversight of manager (Jensen 1993, p.862-863). In this situation, non-executive directors might try to avoid conflicts with powerful CEOs and more likely to accept managerial decisions against their better judgement. Hence, mostly good corporate governance principles of many countries suggest segregation between CEO and the Chairman of the board of directors. The results of previous studies are not consistent in relation to the association between CEO duality and the level of voluntary disclosure. Some researchers such as Chau and Gray, 2010; Donnelly & Mulcahy, 2008; Gul & Leung, 2004 found that CEO duality had a negative relationship with CSP disclosure whereas Habbash, 2016; Jizi et al.,2014; Khan et al., 2013 could not find a relationship between CEO duality and CSP disclosure. Achieving sustainable value creation is the main role and responsibility of the Chairman of the board especially in Thailand context where controlling shareholders are spread out. Under agency theory, CEO duality may cause increasing conflict of interest

between controlling shareholders and minority shareholders including other stakeholders because of the absence balancing CEO power. The following hypothesis is formulated: H5. There is negative relationship between CEO duality and corporate social performance.

### Research Framework



**Figure 1** Research conceptual framework

### Methodology

The research population is all manufacturing companies listed on the Stock Exchange of Thailand (SET) and performed their business throughout the year 2015. Thus, initial population is 347 companies. The samples selected to represent the population are under the following conditions. 1) They are companies listed on the SET with the end of fiscal year as of 31 December and listed on the SET before the year 2014. 2) They are not companies that are classified as a company under the process of restructuring or reorganization. 3) They are not companies with incomplete information. Thus, the 317 final samples consist of 47 companies from agro & food industry, 38 companies from consumer products industry, 73 companies from industrials industry, 86 companies from property & construction industry, 36 companies from resources industry, and 37 companies from technology industry. Data are collected from corporate information disclosure in the 2015 reports required by the Securities and Exchange Commission (SEC). Components of earnings quality and control variables information are collected from annual financial statement whereas corporate annual registration statements (Form 56-1), and website are sources of corporate governance structure and CSP information. The SET and SEC's website provide access to database of Form 56-1, financial statement of company listed in the SET.

### CSP measurement

Variety of ways to encourage CSP information disclosure has been accelerated during the year 2015. As the result, companies have incentive to voluntarily disclose CSP information more radiantly in year 2015 than previously. Fischer & Sawczyn (2013: 33) argued that company with good CSP will voluntarily disclose more information than company with poor CSP. Thus, the measurement of CSP in this study is based on analysis of content because the advantage of this approach involves collecting data of CSP information available in company's annual registration statement of the year 2015. Therefore, this study constructs a CSP disclosure index (CSPDI) to measure information quantity in line with the guidance provided by the CSR Institute (CSRI). This guidance is based on GRI (Global Reporting Initiative) framework which is globally the most widely used framework for CSR disclosure

(Klerk et al., 2015: 215). Construction of CSP disclosure in several studies used GRI guideline because of its effectiveness in assessing the company's sustainability effort (Fuente et al., 2017; Chen et al., 2015; Klerk et al., 2015; Fischer & Sawczyn, 2013). In this study, CSPDI consists of four categories: economic; social; and environment. CSPDI contains 3 items representing the economy core performance indicators, 8 items representing the social core performance indicators and 6 items representing the environmental core performance indicators. To determine the disclosure level of each item, this study utilizes weighted approach as previous studies (e.g., Fernández-Gago, 2016; Chen et al., 2015; Darus et al., 2013; Fischer & Sawczyn, 2013; Lassaad & Khamoussi, 2012). This study gives the highest weight (+3) to the item with monetary and performance disclosure, and gives the next weight (+2) to the item with quantitative disclosure. Finally, general disclosure, e.g., corporate policy and regulation receives the lowest weight (+1). Companies that do not disclose information receive a score of zero for that item. Thus, the possible highest quality of CSPDI is 54 while the lowest quality is zero.

### **Earnings quality measurement**

Several measurements of earnings quality used in accounting research due to the result will be helpful for contracting and investing decisions makers. However, there is neither a single meaning of the concept nor a generally accepted approach to measuring earnings quality (Schipper & Vincent, 2003). The reported earnings have two components, cash flow from operations and total accruals. Total accruals can be decomposed into discretionary accruals and non-discretionary accruals. Under agency theory, many studies have attempted to empirically determine managerial opportunistic behavior through discretionary accruals. High earnings quality involves low level of discretionary accruals whereas low earnings quality includes high level of discretionary accruals. Thus, the inverse of estimating discretionary accruals has been widely used as a proxy variable of earnings quality (Yohan, 2017; Muttakin et al, 2015; Kuo & Lin, 2014). Wróblewski et. al., (2017: 226) suggested that the following models are applicable and popular because they were applied by more than 50% of the studies estimating discretionary accruals; the Jones (1991); the modified Jones (Dechow, Sloan, and Sweeney, 1995); Kothari et al. (2005) and the Kasznik (1999). Therefore, these following four models of discretionary accruals are applied for eq.(1), eq.(2), eq.(3), and eq.(4) respectively.

#### **The Jones (1991)**

$$DA_{i,t} = \frac{TA_{it}}{A_{it-1}} = \alpha_0 + \frac{1}{A_{it-1}} + \alpha_1 \frac{\Delta REV_{it}}{A_{it-1}} + \alpha_2 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \quad (1)$$

#### **The Dechow, Sloan and Sweeney (called modified Jones, 1995)**

$$DA_{i,t} = TA_{it} = \alpha_0 + \frac{1}{A_{it-1}} + \alpha_1 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_2 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \quad (2)$$

#### **The Kothari et al. (2005)**

$$DA_{i,t} = \frac{TA_{it}}{A_{it-1}} = \alpha_0 \frac{1}{A_{it-1}} + \alpha_1 \frac{\Delta SALE_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_2 \frac{PPE_{it}}{A_{it-1}} + \alpha_3 \frac{ROA_{it}}{A_{it-1}} + \varepsilon_{it} \quad (3)$$

#### **The Kasznik (1999)**

$$DA_{i,t} = \frac{TA_{it}}{A_{it-1}} = \alpha_0 \frac{1}{A_{it-1}} + \alpha_1 \frac{\Delta REV_{it}}{A_{it-1}} + \alpha_2 \frac{PPE_{it}}{A_{it-1}} + \alpha_3 \frac{\Delta CFO_{it}}{A_{it-1}} + \varepsilon_{it} \quad (4)$$

Where i and t are the company and year indicators,  $DA_{i,t}$  = discretionary accruals in year t;  $TA_{it}$  =total accruals in year t;  $A_{it-1}$ =total assets in year t-1;  $\Delta SALE_{it}$  = change in sale in year t;  $\Delta REV_{it}$  =annual change in revenues in year t;  $\Delta REC_{it}$  =annual change in receivables accounts in year t;  $PPE_{it}$  =gross property, plant and equipment in year t;  $ROA_{it}$  = Return on assets in year t;  $\Delta CFO_{it}$  =change in cash flow from operations in year t;  $\varepsilon_{it}$  =the error term.

To estimate total accruals, this study uses a cash flow approach by deducting the cash flow from operations obtained in the statement of cash flow from the amount of net income

(before extraordinary items) in the statement of profit or loss (Muttakin et al., 2015). This study takes absolute value of discretionary accruals estimated from each model of discretionary accruals and then this absolute value is multiplied by minus 1 so that discretionary accruals transformed to earnings quality (Blanco et al., 2014). Thus, final outcomes of eq. (1), eq. (2), eq. (3), eq. (4) are earnings quality as following variables: EQ1\_J, EQ2\_MJ, EQ3\_Ko and EQ4\_Ka respectively.

### Control variables

Control variables are selected based on prior studies on CSP disclosure. Company leverage, growth, profitability, size are included in the analysis. Corporate leverage is considered from element of capital structure and this variable implies the riskiness for the company. Companies with high leverage need to generate and maintain cash to service the debt which might reduce their social responsible investment and reporting (Jizi et al., 2014). This study measures leverage as the debt-total assets ratio. High growth companies are likely needed to disclose more information due to higher information asymmetry between company insiders and investors. Thus, in order to reduce information asymmetry, companies with high growth have incentives to disclose additional information (Fuente et al., 2017; Gul & Leung, 2004). In this study, growth is measured by proportion of change in sales from the previous 1 year. Companies with higher profitability have more reserved resource allowing management flexibility to participate in CSP and CSP reporting. Besides, they have more incentive 1) to signal their quality to investors and 2) to legitimize the existence through disclosing CSP (Jizi et al., 2014; Khan et al., 2013; Uyar et al., 2013). This study measures profitability by using return on assets; ROA. Larger companies are more exposed to public scrutiny and tighter regulatory requirements. Hence, larger companies tend to disclose more CSP information than smaller companies (Fuente et al., 2017; Fernández-Gago et al., 2016; Jizi\_2014; Uyar et al., 2013; Chen et al., 2008). The natural logarithm of all the assets is chosen to represent company size variable in this study.

### Model Development

Multiple regression analysis technique is employed to examine the relationship between earnings quality, corporate governance structure and corporate social performance. The assumptions underlying the regression model are tested for multicollinearity based on the correlation matrix, the variance inflation factor (VIF), and the tolerance. This study applies four models for calculating the quality of earnings in order to robust test the relationship between the level of earnings quality and corporate social performance. These four earnings quality variables are separately included in the equations. Hence, the following equations are established:

$$CSPDI_{i,t} = \beta_0 + \beta_1 EQ1\_J_{i,t} + \beta_2 OWNCON_{i,t} + \beta_3 FOROWN_{i,t} + \beta_4 BDIND_{i,t} + \beta_5 CEOD_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GROWTH_{i,t} + \beta_8 ROA_{i,t} + \beta_9 SIZE_{i,t} + \varepsilon \quad (5)$$

$$CSPDI_{i,t} = \beta_0 + \beta_1 EQ2\_MJ_{i,t} + \beta_2 OWNCON_{i,t} + \beta_3 FOROWN_{i,t} + \beta_4 BDIND_{i,t} + \beta_5 CEOD_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GROWTH_{i,t} + \beta_8 ROA_{i,t} + \beta_9 SIZE_{i,t} + \varepsilon \quad (6)$$

$$CSPDI_{i,t} = \beta_0 + \beta_1 EQ3\_Ko_{i,t} + \beta_2 OWNCON_{i,t} + \beta_3 FOROWN_{i,t} + \beta_4 BDIND_{i,t} + \beta_5 CEOD_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GROWTH_{i,t} + \beta_8 ROA_{i,t} + \beta_9 SIZE_{i,t} + \varepsilon \quad (7)$$

$$CSPDI_{i,t} = \beta_0 + \beta_1 EQ4\_Ka_{i,t} + \beta_2 OWNCON_{i,t} + \beta_3 FOROWN_{i,t} + \beta_4 BDIND_{i,t} + \beta_5 CEOD_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GROWTH_{i,t} + \beta_8 ROA_{i,t} + \beta_9 SIZE_{i,t} + \varepsilon \quad (8)$$

Where CSPDI = corporate social performance disclosure index; EQ1\_J = earnings quality calculated from the Jones (1991); EQ2\_MJ = earnings quality estimated from the modified jones (1995); EQ3\_Ko = earnings quality calculated from the Kothari et al. (2005); EQ4\_Ka= earnings quality calculated from the Kasznik (1999); OWNCON = proportion of ordinary shares held by the first ten shareholders; FOROWN = proportion of ordinary shares held by foreign investors on total outstanding shares; BDIND = proportion of independent directors on boards; CEOD = dummy variable equals 1 if same person holds the

positions of CEO and chairman in a company otherwise 0; LEV = debt to total asset ratio; GROWTH = proportionate change in sales from the previous 1 year; ROA = earnings before interest and taxes to total assets ratio; SIZE = natural logarithm of total assets.

## Research Results

Table 2 provides the descriptive statistics for the variables used in the study. The mean value of CSPDI is 0.32 (median = 0.25). The mean values of EQ1\_J, EQ2\_MJ, EQ3\_Ko, EQ4\_Ka are -0.1494, -0.1456, -0.0871, -0.1437 respectively. For corporate governance structure, the mean value of OWNCON is 0.6759 and FOROWN is 0.1389. The mean value of BDIND is 0.3996, while CEOD has an average of 0.11. These results suggest that 11% of the CEOs in this study are also the chairman of the board.

Table 2 also reports bivariate statistical correlations of variables. The analysis shows that CSPDI is significantly ( $p < 0.01$ ) positively correlated with earnings quality i.e. EQ1\_J, EQ2\_MJ, EQ3\_Ko, EQ4\_Ka. Besides, CSPDI is significantly ( $p < 0.01$ ) positively correlated with OWNCON and FOROWN including control variable; ROA and SIZE.

Table 3 reports multivariate statistical correlations by using multiple regression analysis. In relation to the first independent variable, each measure of earnings quality separately including to equation, the analysis reveals a significant positive relationship between earnings quality calculated from four measures and CSPDI (EQ1\_J ( $p < 0.05$ ), EQ2\_MJ ( $p < 0.05$ ), EQ3\_Ko ( $p < 0.01$ ), EQ1\_Ka ( $p < 0.05$ )). It implies that companies with higher earnings quality results in higher extent of CSP disclosure thus supporting H1. Regarding, variables of corporate governance structure, this study finds a significant positive coefficient ( $p < 0.05$ ) of OWNCON for all equations which support H2; that companies with higher ownership concentration are more likely to disclose greater levels of CSP disclosure than other companies do. In other hand, the results show a positive but statistically insignificant relationship between FOROWN and CSPDI thus rejecting H3. Besides, BDIND has an insignificant positive related to CSPDI thus rejecting H4. This study also finds that CEOD has insignificant negative related to CSPDI thus rejecting H5. The regression analyses include four control variables. Table 3 reports a significant positive relationship between ROA and CSPDI, SIZE and CSPDI for all equations. However, the results show a negative but statistically insignificant relationship between LEV and CSPDI. Also, GROWTH has insignificant negative related to CSPDI. In addition, this study checks the tolerance value and the variance inflation factors (VIFs) and results indicate that multicollinearity is not a problem in analyzing data. The results of hypothesis testing are already summarized in table 4.

**Table 2** Descriptive statistics and correlation matrix (N=317)

Variables	Mean	Median	1	2	3	4	5	6	7	8	9	10	11	12	13
1. CSPDI	.3255	.2500	1												
2. EQ1_J	-.1494	-.1235	.176**	1											
3. EQ2_MJ	-.1456	-.1178	.177**		1										
4. EQ3_Ko	-.0871	-.0646	.231**			1									
5. EQ4_Ka	-.1437	-.1256	.167**				1								
6. OWNCON	.6759	.7200	.203**	.164**	.164**	.243**	.128*	1							
7. FOROWN	.1389	.0400	.192**	.137*	.137*	.151**	.075	.229**	1						
8. BDIND	.3996	.3800	.014	-.059	-.059	-.036	-.021	-.125*	-.101	1					
9. CEOD	.11	.00	-.067	-.105	-.105	-.034	-	-.042	.101	.046	1				
								.134*							
10. LEV	.4293	.4233	-.061	-	-	-	-.079	-	.049	.150**	.111*	1			
11. GROWTH	.0329	-.0170	-.071	-.105	-.105	-.076	-.080	-.067	-.053	.033	.033	.164**	1		
12. ROA	.0394	.0392	.236**	.073	.073	.129*	.040	.174**	.105	-.065	-.065	-	.011	1	
															.219**
13. SIZE	22.5279	22.25	.318**	-.002	-.002	.067	-.005	.001	.302**	.026	.026	.212**	.139*	.076	1

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

CSPDI = corporate social performance disclosure index; EQ1\_J = earnings quality calculated from the Jones model (1991); EQ2\_MJ = earnings quality calculated from the modified jones model (1995); EQ3\_Ko = earnings quality calculated from the Kothari et al. model (2005); EQ4\_Ka = earnings quality calculated from the Kasznik model (1999); OWNCON = proportion of ordinary shares held by the first ten shareholders; FOROWN = proportion of ordinary shares held by foreign investors on total outstanding shares; BDIND = proportion of independent directors on boards; CEOD = dummy variable equals 1 if same person holds the positions of CEO and chairman in a company otherwise 0; LEV = debt to total asset ratio; GROWTH = proportionate change in sales from the previous 1 year; ROA = earnings before interest and taxes to total assets ratio; SIZE = natural logarithm of total assets.

**Table 3** Results of regression analyses considering four equations

<b>Dependent variable:</b> <i>CSPDI</i>	<b>Expected</b>	<b>Eq. (5)</b>	<b>Eq. (6)</b>	<b>Eq. (7)</b>	<b>Eq. (8)</b>
	<b>Sign</b>	<b>Coeff. (t-stat)</b>	<b>Coeff. (t-stat)</b>	<b>Coeff. (t-stat)</b>	<b>Coeff. (t-stat)</b>
EQ1_J	+	0.123* (2.340)			
EQ2_MJ	+		0.126* (2.392)		
EQ3_Ko	+			0.147** (2.763)	
EQ4_Ka	+				0.127* (2.439)
OWNCON	+	0.134 * (2.458)	0.133* (2.452)	0.119* (2.168)	0.136* (2.501)
FOROWN	+	0.045 (0.791)	0.043 (0.763)	0.046 (0.809)	0.050 (0.879)
BDIND	+	0.010 (0.850)	0.010 (0.179)	0.007 (0.123)	0.005 (0.099)
CEOD	-	-0.042 (-0.812)	-0.043 (-0.826)	-0.053 (-1.023)	-0.040 (-0.760)
LEV		-0.053 (-0.956)	-0.054 (-0.960)	-0.045 (-0.806)	-0.048 (-0.867)
ROA		0.142** (2.628)	0.144** (2.654)	0.139* (2.571)	0.148** (2.745)
GROWTH		-0.064 (-1.226)	-0.061 (-1.159)	-0.064 (-1.226)	-0.064 (-1.227)
SIZE		0.300** (5.305)	0.301** (5.318)	0.290** (5.137)	0.298** (5.277)
Adjusted R Square		0.174	0.174	0.179	0.175
F		8.385**	8.419**	8.679**	8.450**
Durbin-Watson		1.967	1.965	1.944	1.976
N = 317					

\*\*p&lt;0.01; \*p&lt;0.05

**Table 4** Results of research hypothesis testing

<b>Research hypotheses</b>	<b>Results of the hypothesis testing</b>
H1: Earnings quality has positive relationship with corporate social performance	Accepted
H2: Ownership concentration has positive relationship with corporate social performance	Accepted
H3: Foreign ownership has positive relationship with corporate social performance	Rejected
H4: Board independence has positive relationship with corporate social performance	Rejected
H5: CEO duality has negative relationship with corporate social performance	Rejected

## Conclusion and Recommendation

This study investigate the relationship between earnings quality, corporate governance structure and corporate social performance emphasizing on manufacturing companies listed in the Stock Exchange of Thailand (SET). Regression analyses document a significant positive relationship between earnings quality and CSP confirmed by four measurements of earnings quality. This result suggests that there is complementary relation between earnings quality and CSP disclosure consistent with results of Francis et al., (2008). As the result of ethical perspective claimed by Chum, (2005), Thai companies with more demonstration of

ethical character will also be more committed in corporate social performance. Further, this study also provides empirical evidence that there is a significant positive relationship between ownership concentration and CSP disclosure. This result advocates that controlling shareholders of Thai companies are powerful in monitoring and controlling corporate social performance because they increasingly recognize their long term benefit will be generated when showing behavior as a good citizenship in society consistent with discovering in several developing countries. However, foreign ownership, board independence, and CEO duality are not found significantly related with CSP disclosure in Thai companies. The result suggests that a number of shares permitted for foreign investor might be insufficient to motivate them to active in social decision making consistent with result of Zeng et al., (2011). Additionally, number of independent directors has little contribution in decision of CSP in Thai companies seemingly they only exist in accordance with regulatory requirement. It is likely that the effect of negative power of CEO duality on CSP in Thai companies is probably suppressed by controlling shareholders. Further work can be continued to examine the relationship between earnings quality, corporate governance and CSP by extending study period from 2015 up to present time. Moreover, comparative study about these relationships between service industry and manufacturing industry can also be done. This additional work will show trend of CSP in long-term period leading to better understanding the relationship between earnings quality, corporate governance structure and CSP in Thai capital market.

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