ESG DISCLOSURE AND OWNERSHIP CONCENTRATION

BY

MR. CHANONTH THAVARANONTH

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE
PROGRAM IN FINANCE (INTERNATIONAL PROGRAM)
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ABSTRACT

Sustainability is one of the criteria that many investor focus when they are looking for long term investment. To make the right decision, investor require companies to disclose both financial and nonfinancial information, especially focusing on corporate governance and corporate social responsibility as Environmental, Social and Governance (ESG).

This study used ESG Disclosure Score from Bloomberg to represent the company sustainability. The relationship between ESG, Ownership Concentration (OC) and the square of Ownership Concentration (OC^2) were investigated by observing developed and emerging markets in East Asia and South East Asia which consists of 252 stocks over nine countries. Company size, firm performance, leverage, firm value, and volatility of stock return were use as control variables. There is a significant relationship between ESG, OC and OC^2 in Japan and China markets, but the result is opposite direction in these markets. Once there is too much concentration in China market, the ESG of the firm get worse, while OC in Japan markets is significant positive related to ESG.

Keywords: ESG Disclosure Score, Ownership Concentration, Blockholders, Developed market, Emerging market.

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CHAPTER 1
INTRODUCTION

There are many investors interesting in the relationship between corporate governance (CG), corporate social responsibilities (CSR) and company's stakeholders (such as owners, managements, employees, suppliers, and customers). Due to management and significant shareholders are the key person who take control over the company. The control power will be with the management which might lead to poor company performance due to agency problem. The corporate governance can be one of the mechanisms to reduce agency problem of a firm between minority shareholders and management team, while CSR is a tool to help company make a good reputation to the environment and society both local community and comply with regulatory requirements. Thus, both CG and CSR are helping the company sustainability for doing business in long run. Therefore, the sustainability information of the company not only useful for CG or CSR profession, but these information also enhance the investors confident on company investments, products, services or either the governance compilation with regulators. This paper will focus on how the ownership concentration impacts the level of company sustainability disclosure.

In many countries, the concentrated ownership usually belongs to institution investors, wide-reaching holding company or big family name. This is true, especially with a private company in market developed countries, where each listed company is part of a complicated network of multinational company or inbound holdings, which parent company may not be a listed firm.

There are many reasons for this ownership structure. First, in the developing countries, the bundle of capital market is considered narrow, there is quite a small number of market participant. Often, we can see State Owned Enterprises (SOEs) or huge family ownership play a significant role in the market. This is considering as a concentrated ownership. For more developed market, we can see the essential growth of major institutional investors. These institutional investors may consist of local banks, foreign investment banks, hedge funds, securities companies, others significant financial players and the pooling of funds which gather individuals investors and turn it into group of investors. Hence, we can see the different type of ownership concentration in different market.

Big investors may invest in the companies which have long-term growth and consistent performance. To reduce agency problem these investors will apply the concentrated ownership by using their own resources to closely monitor both operation and performance of the firm.

Nevertheless, the concentrated ownership comes with their own prices. According to the recent history of corporate finance, the major shareholders or a group of same family can exercise their control through obtain benefit from small individual investors. This exposure is increase especially when the shareholders is too close to management, management team came from the part of major shareholders, or there is reckless monitoring due to cross-team of individuals management with complicated in bundle of company.

In addition, the regulatory omission, ambiguity and complex structure of ownership concentrated will bring the risk to both investors and public. This can be the cause of lower investment from foreign investor or even withdraw the investment from their portfolio. In the worst case, this complex structure, concentrated of shareholder and lack of monitoring can lead to fraud and corruption inside their corporation, especially in the multinational companies.

Furthermore, the factors which help drive company success in the capital market including all intangible value of the company such as reputation, proprietary technology and brand equity. According to the current trend, the investors are interesting in these factors which are the part of corporate governance and corporate social responsibility because these two determinants lead the company sustainability.

We integrate the level of both CG and CSR in to one determinant call sustainability. We measure the company sustainability by employ the ESG Disclosure Scores from Bloomberg.

CHAPTER 2
REVIEW OF LITERATURE

For this literature review will be divided into two parts including corporate governance and corporate social responsibility.

2.1 Corporate Governance

Corporate governance is a tool to enforce and monitoring business and also consider as mechanism to reduce the agency problem and incomplete contract. Mechanisms of CG (Oliver Hart, 1995) consist of Board of directors, proxy fight, large shareholder, corporate takeover and financial structure.

The Agency problem occurs from Asymmetric Information between Principal and Agent. For example, Oliver Hart has summarized reasons that the company need to have corporate governance in 1995. In the normal businesses, they always has agency problem due to every party would like to maximize their own benefit such as management would like to maximize their own compensation scheme such as bonus, accommodation during their business trip or other facilities while shareholders need to absorb this expense. At the same time, management team or agents can also take advantages over their creditor by invest in business that have high risk and have chance to get higher return while the debtor receive the interests in the same rate. Then, this conflict of interest is the reason that the company need to have corporate governance.

Yves Bozec (2007), Attiya & Robina (2009) have studied the relationship of ownership concentration has effect to the level of CG. Both studied show the negative relationship between ownership concentration and CG. Yves Bozec has studied this relationship in developed market (Canada) while Attiya and Robina studied this relationship in emerging market (Pakistan).

There are some paper studied the relationship between ownership concentration and independence board representation which is one of CG criteria. The result show negative relationship among these determinants. (Rediker & Seth, 1995; Bhatala & Rao, 1995; Prevost, Rao, & Hossain, 2002).

However, Durnev and Han Kim (2006) found the positive relationship between the ownership concentrations with higher CG practice especially in weak legal regime. Yet, too much concentration might lead to private benefit instead of company and minority shareholders in the future.

Table 2.1: Summarized of studies on ownership concentration and CG.

Author(s)	Positive	Negative	Study
Yves Bozec (2007)		x	Ownership Concentration and Corporate Governance Practices: Substitution or Expropriation Effects?
Attiya Y. Javid and Robina Iqbal (2009)		x	Ownership Concentration, Corporate Governance and Firm Performance: Evidence from Pakistan
Bhathala, C., & Rao, R.P. (1995)		x	Relationship between ownership concentration and board composition
Prevost, A. K., Rao, R.P., & Hossain, M. (2002)		x	Relationship between ownership concentration and independence board representation in New Zealand
Rediker, K., & Seth, A. (1995)		x	Relationship between ownership concentration and independence board representation of bank holding companies
Durnev, Art and E. Han Kim (2006)	x		Ownership Concentration and Corporate Governance Practices

2.2 Corporate Social Responsibility

Corporate social responsibility is strategic philosophy which is short term and long term action plan to meet the common wealth of shareholder and other stakeholders.

There are many papers study about CSR in difference perspective. In 1979, Carroll has gave the view of CSR in many perspective such as 1) The CSR is no impact to performance of business. The company should only maximize their profit (Friedman, 1962) 2) CSR is the voluntariness activities of each company (Manne & Wallich, 1972) 3) The purpose of doing business is more than making profit (Davis, 1960; Backman, 1975) 4) The business is more than economic target and regulatory or laws.

Theoretically, the relationship between CSR and concentrated ownership still unclear whether CSR lead to certain ownership structure or ownership structure drives CSR. Concentrated ownership could lead to particular financial and social performance as the efforts of the major owners. However, a particular CSR might attract large shareholder and result in substantial investment to the firm. Bartkus et al. (2002) find strong evidence with 66 US companies that powerful owners discourage excessive philanthropy.

Vincente et al. (2012), Lammertian and Bert (2012), Brammer and Millington (2005), Atkinson and Galaskiewicz (1988), concluded that there is negative relationship between ownership concentration and corporate social responsibility.

However, Galaskiewicz (1997) for the US and Adams and Hardwick (1998) for the UK found no significant relationship between corporate social performance and ownership concentration. Graves and Waddock (1994), also found no relationship between social performance and institutional ownership concentration but they found significant positive relationship between corporate social performance and the number of institutional shareholders as well as Neubaum and Zahra (2006) also found positive relationship between long term institutional shareholder and corporate social performance.

Table 2.2: Summarized of studies on ownership concentration and CSR.

Author(s)	Positive	Negative	Insigni-ficant	Study
Bartkus, B. R., Morris, S. A., & Seifert, B., 2002		x		66 US Companies with powerful owners and philanthropy
Lammertjan Dam and Bert Scholtens, 2012		x		Ownership Concentration and CSR Policy of European Multinational Enterprises
Atkinson, L., & Galaskiewicz, J., 1988		x		Ownership concentration and company contributions to charity
Brammer, S., & Millington, A., 2005		x		Ownership concentration and Philanthropy
Atkinson, L., & Galaskiewicz, J., 1997			x	Ownership concentration and CSR in US
Adams, M., & Hardwick, P., 1998			x	Ownership concentration and CSR in UK
Graves, S. B., & Waddock, S. A., 1994			x	Corporate Social performance and the percentage of shares held by institutions
Graves, S. B., & Waddock, S. A., 1994	x			Corporate social performance and the number of institutions holding shares of a company
Neubaum, D. O., & Zahra, S. A., 2006	x			Institutional ownership (long term) and CSP
Vicente et al., 2012	x			Ownership concentration and CSR in Brazil

CHAPTER 3
THEORETICAL FRAMEWORK

3.1 Agency Problem

In 1976, Jensen and Meckling define an agency relationship as an agreement that one or more persons (principal) engage with another person (agent) to provide service on behalf of them and give authority to the agent to perform the task on behalf of principal. At this point, agency problem occurred once there is conflict of interest between the principal and the agent.

The Agency Theory focus on studying the conflict of interest and the consequence of separation between shareholders and management which lead to the possibility of utility function mismatch between principals and agents. Once there is conflict of interest between principal and agent, the agent tries to maximize their own interest instead of maximize the wealth of the firm.

There are many paper studies about the way to reduce agency problem by using external and internal tools. The firm can use incentive or management monitoring mechanism as internal tools while regulator act as external tools to control or reduce agency problem.

3.2 Information asymmetry

George A. Akerlof introduced the concept of information asymmetry in 1970. This concept plays a significant role in the world of corporate finance. Following Bernard et al., information asymmetry occurs when one group of people has better or timely information than others which make them takes an action forwards the others. In the corporate finance world, the information asymmetry occurs when the managers has information on hand but it's not disclose to shareholder or investors. The information inequilibrium of two parties can generate the agency problem between managers and shareholders.

In 2007, Kanagaretnam et al. studied the relationship between information asymmetry and quality of CG during period of announcement quarterly earnings in the equity market. They find negative relationship between the quality of CG and information asymmetry, high quality of CG has decrease information asymmetry during the earning announcement period.

3.3 Controlling shareholders impact ESG

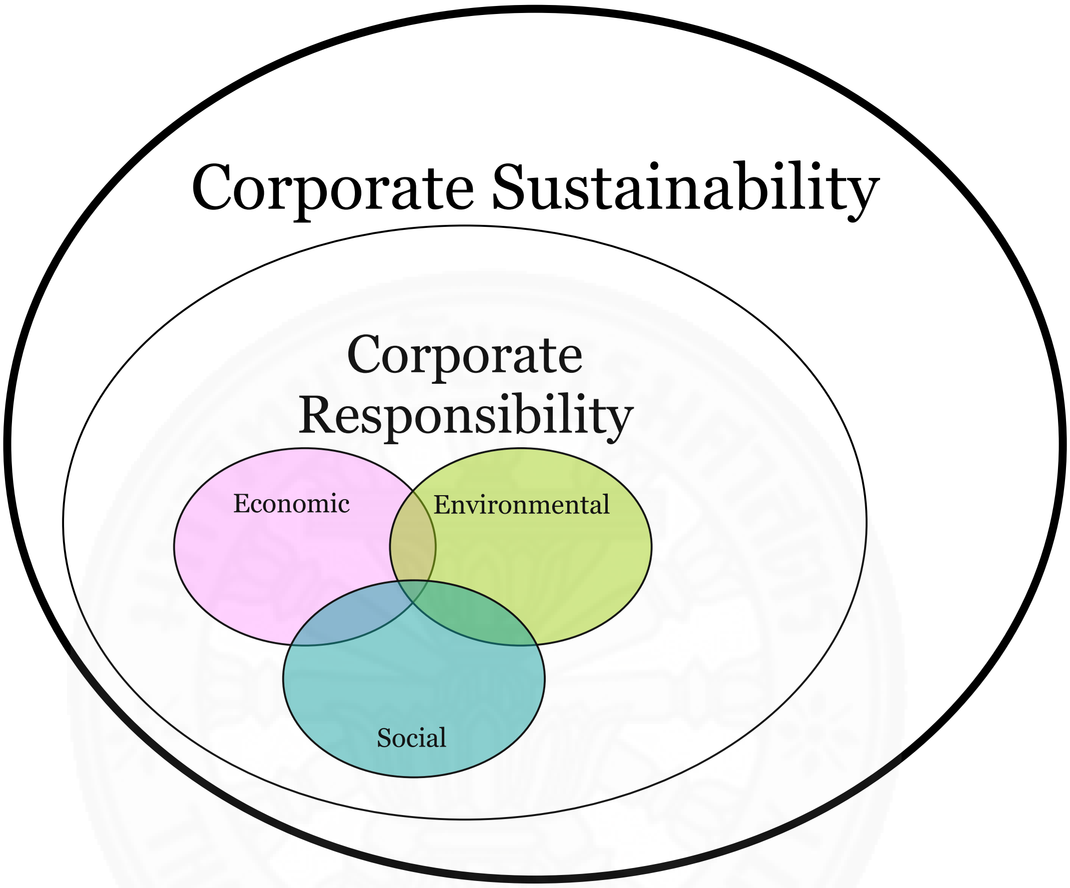
In 1997, Vishny and Shleifer; In 1999 La Porta et al., and Bebchuk et al., they found the ownership concentration has both positive and negative impact to the firm. Since the major shareholders with controlling right may be harmful to the firm due to their interests may not be the same as non-controlling shareholders or they may use the company to pay out the cash flow for their own benefit such as pay high salary and excessive dividends to themselves, and even offer management board position to their own family.

Vishny 1986. and Admati et al. 1994, the controlling shareholders are not always devalue the firm. Since the controlling shareholder can reduce the free rider problem by help non-controlling shareholder to monitor the management performance. Thus, reducing the agency cost is one of the criteria that lead the company to sustainability.

Concentrated of ownership and the block holders may effect to the management to take an action or create activities to maximize the value of shareholders. Siegel and Vitaliano (2007) and Ree and Mackenzie (2011), the shareholder or owner will encourage ESG programs that can meet their benefit and generate more benefit in the future. Moreover, there is a survey by Mercer Consulting in 2006 mention that there is 64% of investor give the importance of the CG which part of ESG when they are consider to invest in equity stock.

3.4 Sustainability, CSR and CG

Figure 3.1: Dimension of Corporate Sustainability and Corporate Responsibility



Source: Lassi Linnanen and Virgilio Panapanaan, Helsinki University of Technology.

In former day CSR and company sustainability (CS) perceived as separate aspects, however, at the present time people use them interchangeable. Lassi L. and Virgilio P. from Helsinki University, mention that the Corporate Responsibility (CR) is part of Corporate Sustainability (CS). They also disaggregate CR into three dimension; economic, social and environmental as show in the diagram above.

According to Marrewijk (2003), CS/CSR divided into five interpretations:

- Compliance-driven: company perceived CS/CSR as an obligation and duty.
- Profit-driven: company will promote CS/CSR if they help generate the profit.
- Caring CS: company is motivated by caring of human, social, and planet.

- Synergistic CS: company perceive CS/CSR is an important direction for progress.
- Holistic CS: company perceive CS/CSR is only possible way since all thing being mutually independent.

However, Marrewijk (2003) suggests to keep some significant different between this two as CS focuses on environmental friendly, value creation and human capital while CSR relate to such thing like reporting, transparency and stakeholder dialogue.

In 2003 Paul A. Gompers et al., has construct the governance index in order to scoring the company in term of governance with 28 criteria that can be group in to 5 categories.

- Delay: Blank Check, Classified Board, Special Meeting and Written Consent
- Protection: Compensation Plans, Contracts, Indemnification, Liability, Severance and Golden Parachutes.
- Voting: Charter, Bylaws, Cumulative Voting, Secret Ballot, Unequal Voting and Supermajority.
- Other: Antigreenmail, Directors's Duties, Fair Price, Pension, special right for shareholder. Severance (firm not protect key person in merger situation).
- State: Antigreenmail Law, Business Combination Law, Cash-Out Law, Law of director duties, Law of fair price and Share Acquisition control Law.

CHAPTER 4
DATA

To study the relationship of ESG Disclosure Scores and Ownership Concentration of the developed and emerging markets in East Asia and South East Asia, this paper employs the information from United Nation and World Bank to identify and classified the list of developed market, i.e. high human development and top high-income economies. Thus, Japan, Singapore, Hong Kong and South of Korea are group as Developed market while China, Taiwan, Thailand, Malaysia and Philippines are considered as Emerging Market.

The sample be collected from listed companies in the countries mentioned above which have ESG Disclosure Scores show in Bloomberg database during 2011 to 2015. Then, it was been selected only the stock within top 20 large market capitalization in each country during 2011 to 2015.

From the above criteria, this study employs companies in each countries as below;

Table 4.1: Number of sample in developed and emerging markets

Market	No. of stock
Developed market	
○ **Japan**	14
○ **Singapore**	17
○ **Hong Kong**	16
○ **South Korea**	18
Total developed market	**65**
Emerging market	
○ **Taiwan**	16
○ **Malaysia**	19
○ **China**	10
○ **Philippines**	17
○ **Thailand**	14
Total emerging market	**76**

CHAPTER 5
RESEARCH METHODOLOGY

This study employed panel data methodology as it helps to identify and estimate effects that are not easily detectable in cross-sections or time series data. The basis regression model was employed from Yves Bozec (2007) and Lammertjan & Bert (2012). Then, the models were combined together and specified as follows:

$$ESG_{ki} = \alpha+\beta_1 OC_{ki}+ \beta_2 OC^2_{ki} +\gamma X_{ki}+\mu_k$$

Remark:

ESG_{ki} = Sustainability Score
OC_{ki} = Ownership concentration
OC^2_{ki} = The square of ownership concentration
X_{ki} = Control variable

The square of ownership concentration (Ting et al., 2016) is included in the regression model to test for the nonlinear relationship between ownership concentration and sustainability score. It is right that more power of shareholder can reduce agency problem between management and shareholder. However, too much ownership concentration may be increasing agency problem from the conflict of interest between two groups of people: majority and minority. Since ownership concentration may help major shareholders to enjoy their own benefits at the expense of minority interests (Barclay and Holderness, 1989). In emerging markets, weaker control mechanisms and less oversight regulators may provoke such risk (Williamson, 1991; La Porta et al., 1999).

5.1 Sustainability

A sustainability score come from two dimensions, the corporate governance and CSR (Seksak, 2006). We use panel data on ownership concentration and sustainability score from developed market (Japan, Singapore, Hong Kong, South of Korea) and emerging market (Taiwan, Malaysia, China, Philippines and Thailand) in East Asia and South East Asia from 2011 - 2015. Especially, this paper will focus more on Japan and

China market as representative of developed and emerging market respectively. Measure company sustainability is come with a cost. Since there are many dimensions to assess company governance and CSR. Moreover, they are a lot of concern regarding to the accuracy, reliability, validity and standardize guideline of assessing sustainability index.

The ESG is stand for Environmental, Social and Governance. Environmental and Social is a represent perspective of CSR. Environmental criteria evaluate how the company contribute and concern on their environment in term of pollution, energy use and animal treatment. Social perspective is looking at the business relationship with outside stakeholders, how much the company contribute or donate to their society. While Governance is a representative for CG, the Company will be evaluated this perspective by ensuring there are systems or procedures in place to ensure accountability and transparency of financial information and the way to manage the company and running their business.

Nowadays, there are three main financial market information providers namely, Bloomberg, Thomson Reuters and MSCI. These providers provide ESG score which indicate the company sustainability. A recent study in 2016 by Indarawati et al., they use ESG score from Thomson Reuter to represent the company sustainability.

This paper obtained the level of company sustainability through ESG disclosure score from Bloomberg. ESG disclosure score has composed of a cross sectional data from 2009 with data in 69 countries from both emerging and developed countries. This score has come from the data more than 11,300 companies with ESG Data and more than 16,000 companies with executive compensation data. The dimension that incorporated for evaluate the score is capture both qualitative and quantitative indicators from the basic information of the company to specific public information which cover energy and emissions, women on the board, independent directors, completeness of disclosure in seven essential indicators, political donations, etc. Please see more details of ESG disclosure score in Appendix A.

5.2 Ownership Concentration

Adequacy investor protection concentration is one of the importance tool for resolving agency problem between major shareholder and minority shareholder. Thus, we use blockholdings which mean one shareholder hold large blocks of shares (Bolton and von Thadden 1998) to identify the ownership concentration.

As this paper focus on investigating the ownership concentration impact to the Sustainability score. The ownership concentration will be defined by level of blockholdings. By following the previous studies of Jo and Harjoto 2011, 2012; Harjoto and Jo 2011; La Porta et al. 1999; Atkinson and Galaskiewicz 1988, if the company has at least one shareholder who holds the company share more than 5%, this study consider the company has a blockholder. Then, this paper will use concentration ratio to identified the level of concentration.

5.3 Control variables

Previous studies (Ullmann, 1985; McWilliams and Siegel, 2000) find size, risk, industry, and R&D investments are major control variables for corporate social performance. Hence, this paper will apply total asset, return on total assets, leverage, firm value, and firm risk of each company as control variables.

Size was measured by log of total assets (logA) are relevant control variable as there are some evidence that smaller companies are less concerned with CSR (Waddock and Graves, 1997 and Pornsit et al., 2014).

Performance was measured by using return on assets (ROA). This is another control variable in this paper since previous studied find a correlation between firm performace and social performance (Margolis and Walsh, 2001).

Leverage or debt to equity (DE) is also use as control variable as they related to the level of risk a company is willing to take (Barnea and Rubin, 2010).

Tobin's Q (TQ) is one of the control variable in this paper which represent the firm valuation. There is recently paper find a positive relationship with governance disclosure which is one of perspective of sustainability score (Ioannis Ioannou and George Serafeim, 2016).

Standard deviation of stock return or return volatility (Vol) is another control variable as there are negative relationship with CSR of the company. (Jo, H. & Na, H. J, 2012). Due to the CSR can help the company reduce the firm risk.

The following is the relationship of each variable on the developed and emerging market.

Table 5.1: Pearson correlation of developed market

	ESG	OC	OC^2	logA	RoA	DE	TQ	Vol
ESG	1.0000							
OC	-0.1826*	1.0000						
OC^2	-0.2261*	0.9540*	1.0000					
logA	0.0112	-0.3600*	-0.2881*	1.0000				
RoA	-0.0401	0.0978	0.0667	-0.5096*	1.0000			
DE	0.0247	-0.2910*	-0.2287*	0.6204*	-0.4165*	1.0000		
TQ	-0.0385	0.0864	0.0893	-0.5750*	0.5830*	-0.2075*	1.0000	
Vol	0.1265*	-0.0563	-0.0470	-0.0792	0.1025	0.0909	0.0410	1.0000

*Significant confidential level at 95%

Table 5.2: Pearson correlation of emerging market

	ESG	OC	OC^2	logA	RoA	DE	TQ	Vol
ESG	1.0000							
OC	-0.1057	1.0000						
OC^2	-0.066	0.9283*	1.0000					
logA	0.5122*	-0.0874	-0.0626	1.0000				
RoA	-0.2675*	-0.0048	-0.0246	-0.5545*	1.0000			
DE	0.3323*	0.0585	0.0434	0.6977*	-0.4749*	1.0000		
TQ	-0.2834*	0.0203	-0.0114	-0.6786*	0.7898*	-0.4103*	1.0000	
Vol	-0.0435	-0.0174	-0.0060	0.0527	-0.1467*	0.0807	-0.0381	1.0000

*Significant confidential level at 95%

CHAPTER 6
RESULT AND DISCUSSION

Table 6.1: Sustainability Score and measures of ownership concentration relationship

Variables	China (RE)		Emerging (FE)		Japan (RE)		Developed (RE)	
OC	(3.7837)	*	15.0237		13.0846	**	8.3294	
OC^2	1.1777	**	(19.7465)		(34.0156)	**	(14.4341)	
logA	5.2544	***	17.4105	***	(3.8250)	**	0.6652	
RoA	(0.0100)		(0.0783)		(0.0114)		(0.0816)	
DE	0.0001		(0.0167)	**	(0.0038)		(0.0070)	
TQ	0.3487		0.4535		1.4347		1.2920	
Vol	(0.0147)		(0.2176)	***	(0.0364)		(0.0626)	
R-sq: Overall	0.2785		0.0279		0.0001		0.0080	
No. of obs	242		379		430		322	
Number of company	49		76		86		65	

RE = Using panel data with random effect,   FE = Using panel data with fixed effect

** p < 0.10,   ** p < 0.05,   *** p < 0.01*

6.1 Developed and emerging markets

The result of regression on the relationship between sustainability score and the ownership concentration at threshold level 5% has the positive sign for both developed and emerging countries, while the square of ownership concentration has an opposite sign with ownership concentration. The relationship between ownership concentration and the square of ownership concentration is as expected but the relationship is not significant.

For emerging countries, the control variable have positive relationship for the company size and Tobin’s Q, while there are negative relationship with volatility of stock return, company performance and leverage ratio. The company size, measure by log of total assets and volatility of stock return are very importance to the level of sustainability score with the significant at 99% confidential level. These results can imply that large company are willing to focus on the good governance and CSR than small company. While decreasing the volatility of stock return by reducing information asymmetries between investors and the company, which make the firm risk decreased, this mean the firm disclose more transparent information that make a good governance and it's improve sustainability score.

For developed market, Control variable shows the same result as emerging countries but result is insignificant.

6.2 Japan and China

The observation scope for Japan and China was extended from top 20 to top 100 of largest market capitalisation of Tokyo and Shenzhen stock exchange which have sustainability score in Bloomberg during the period 2011 to 2015, respectively. The following table is show the relationship in each variable in Japan and China markets.

Table 6.2: Pearson correlation of Japan market

	ESG	OC	OC^2	logA	RoA	DE	TQ	Vol
ESG	1.0000							
OC	-0.1452*	1.0000						
OC^2	-0.1831*	0.9358*	1.0000					
logA	0.0562	-0.1541*	-0.1724*	1.0000				
RoA	-0.2330*	0.4550*	0.4635*	-0.4649*	1.0000			
DE	-0.0385	-0.1249*	-0.1274*	0.4905*	-0.3068*	1.0000		
TQ	-0.2986*	0.4780*	0.5141*	-0.4516*	0.6398*	-0.1862*	1.0000	
Vol	-0.0452	0.0409	0.0163	0.0362	-0.0469	0.1304*	0.0850	1.0000

*Significant confidential level at 95%

Table 6.3: Pearson correlation of China market

	ESG	OC	OC^2	logA	RoA	DE	TQ	Vol
ESG	1.0000							
OC	-0.1057	1.0000						
OC^2	-0.0660	0.9283*	1.0000					
logA	0.5122*	-0.0874	-0.0626	1.0000				
RoA	-0.2675*	-0.0048	-0.0246	-0.5545*	1.0000			
DE	0.3323*	0.0585	0.0434	0.6977*	-0.4749*	1.0000		
TQ	-0.2834*	0.0203	-0.0114	-0.6786*	0.7898*	-0.4103*	1.0000	
Vol	-0.0435	-0.0174	-0.0060	0.0527	-0.1467*	0.0807	-0.0381	1.0000

*Significant confidential level at 95%

From the observation result in table 6.1, there is significant relationship between sustainability score and the ownership concentration at threshold level 5% and the square of ownership concentration in both Japan and China.

In Japan, ownership concentration, square of ownership concentration and control variable show the same result as the group of developed and emerging countries. Except the company size has significant negative relationship with the sustainability score. There is no significant relationship for the others control variables. The square of ownership concentration has opposite direction with ownership concentration and sustainability score. This result imply that too much concentration will lead to the contradict outcome. Since the major shareholders may harmful the minority shareholders to keep benefit for their own sake.

In China, this paper gets different result on the main observation variables when compare with Japan, developed, and emerging countries. However, the control variables show positive and significant relationship between sustainability score and company size as other groups of observation.

CHAPTER 7
ROBUSTNESS CHECK

To emphasize, the relationship of sustainability score and ownership concentration is a non-linear relationship. This paper also apply the model without the square of ownership concentration as follow;

$ESG_{ki} = \alpha+\beta_1 OC_{ki}+ \gamma X_{ki}+\mu_k$

Remark:

ESG_{ki} = Sustainability Score

OC_{ki} = Ownership concentration

X_{ki} = Control variable

After running the model without the square of ownership concentration, there is no significant relationship between ESG and OC. The results of each market are shown in table 7.1 below.

Table 7.1: Sustainability Score and measures of ownership concentration relationship without the square of ownership concentration.

Variables	China (RE)		Emerging (FE)		Japan (RE)		Developed (RE)	
OC	0.1981		(6.1857)		3.7860		(1.0925)	
logA	5.5128	***	17.2983	***	(13.9131)	***	0.6367	
ROA	(0.0148)		(0.0828)		0.0101		(0.0844)	
DE	(0.0005)		(0.0165)	**	(0.0026)		(0.0066)	
TQ	0.3692		0.4937		2.4798	***	1.1673	
Vol	(0.0120)		(0.2106)	***	(0.0451)		(0.0629)	
R-sq: Overall	0.2776		0.0391		0.0096		0.0029	
No. of obs	242		379		430		322	
Number of company	49		76		86		65	

RE = Using panel data with random effect, FE = Using panel data with fixed effect

** p < 0.10, ** p < 0.05, *** p < 0.01*

In term of control variables that have a significant relationship with sustainability score, the relationship is the same as the model with the square of ownership concentration in Chapter 6.

CHAPTER 8
DISCUSSION AND CONCLUSION

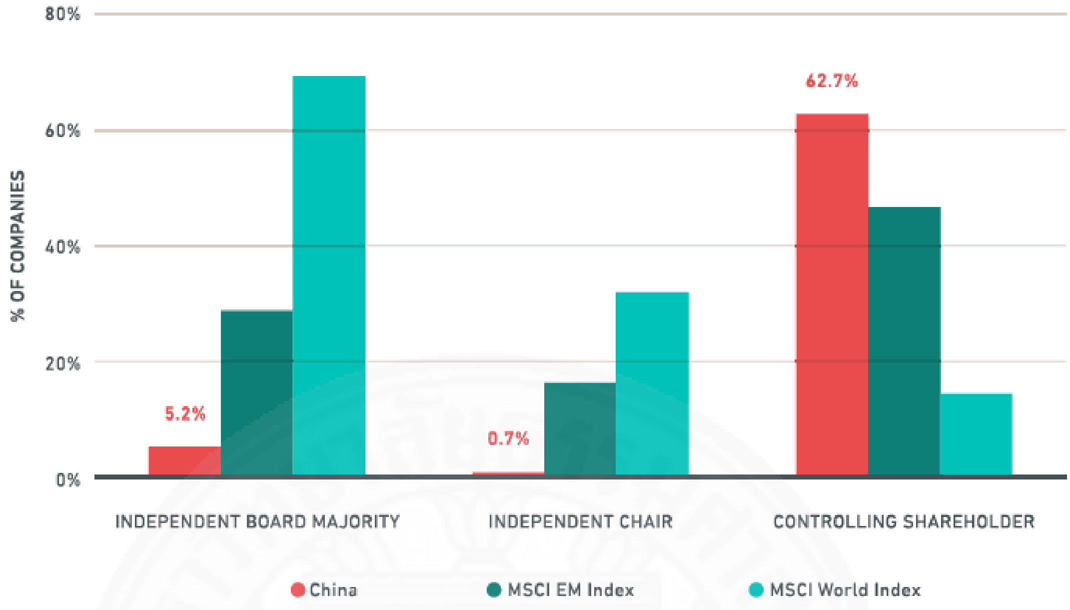
The result of this observation which this paper investigates whether sustainability score has the relationship with ownership concentration can identified by apply the sum of Blockholding at 5%. In Japan market, the result shows there is significant positive relationship between sustainability score and ownership concentration, and we get the different direction for the square of ownership concentration. This direction also in line with the developed and emerging markets. This is commonly interpret that ownership concentration can motivates management to have a good governance and CSR. This is mean controlling shareholders are more involved in monitoring the firm, reduce the agency problem and more focus on company success in long-term of running business. However, the difference direction was shown in China markets with significant relationships.

Return on asset and volatility of stock return, even the result is not significant (except stock return volatility in Japan market) but the result shown negative relationship as expected. Once the companies lower the firm risk such as reducing information asymmetries between investors and the firm or lower leverage ratio, then the sustainability score increase.

The relationship of Tobin's Q and sustainability score are positive as expected because the company are willing to disclose more information when the firm value is increase or positive. Once disclose more transparency information, the sustainability disclosure score increase.

In the previous study by Eccles, R.G et al. (2014), companies with high sustainability are disclosed more insight information about nonfinancial information to their stakeholder since this information can demonstrate to investors whether the enterprise is running business as long term oriented. Also, these companies outperform those companies who have weak sustainability policy in long term both in the stock market and financial performance perspective.

Figure 8.1: Ownership and Independent trends in 2015

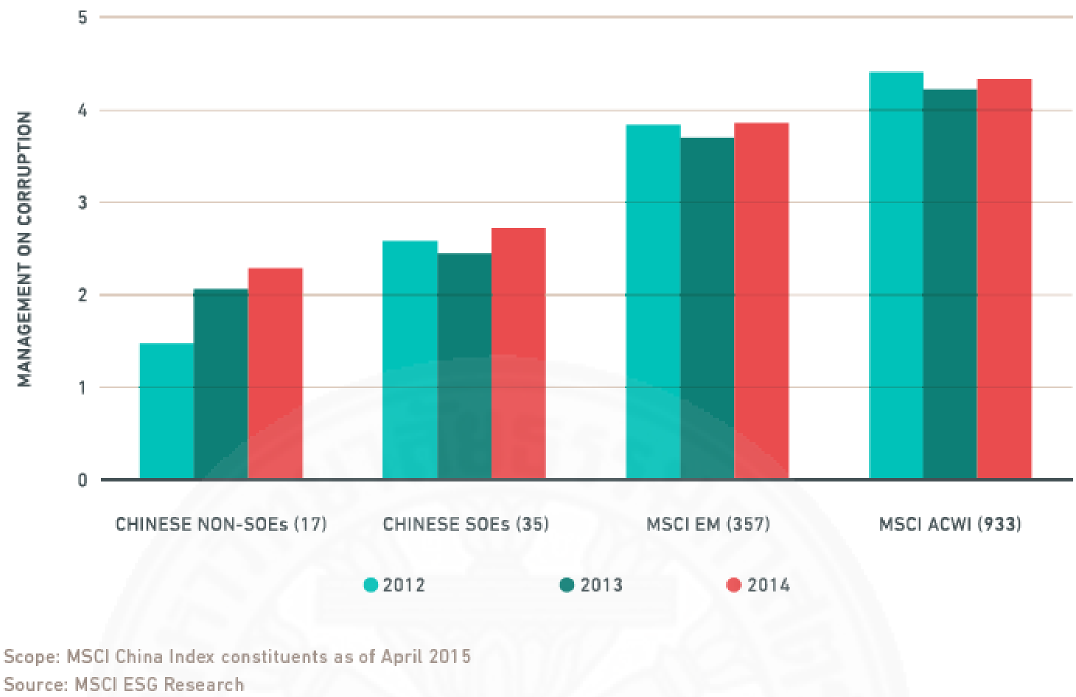


Scope: MSCI All Country World Index constituents as of April 2015; Source: MSCI ESG Research

Since the result from China is difference from the others group of observation and after drill down to the Chinese companies' characteristic which based on the information on April 2015 show in figure 6.1. Most of Chinese companies have a significant level of ownership concentration or controlling shareholder by SOEs. The concentration of controlling shareholders represent 63% of Chinese companies which is higher than MSCI Emerging Market Index that has controlling shareholders around 48%.

In 2015, Wang et al., tracked the policy of management anti-corruption and focusing on the high risk sector such as telecommunication, energy and real estate. The result as in the figure 6.2 shown that there is improvement of Chinese non-SOEs concentration but the trend on SOEs concentration is quite stable.

Figure 8.2: Chinese companies management score for anti-corruption, 2012 - 2014



The Chinese Government has launched a new policy to reform the ownership structure during 2015, while they are maintaining control to the main national security and economy. The Chinese Government are aiming to narrow down the difference of SOEs controlling shareholders with the emerging and developed market in order to increase their ESG level in the future.

As there is too much concentration of controlling shareholders from SOEs and non-SOEs, the observation in China shows different results when compare with the relationship in Japan and the others group of emerging and developed market. These contradict relationship in China may imply the existing of a potential conflict of interest between controlling shareholder and minority interests which lead to insufficient protection of minority shareholders or firm not have enough of good governance and social responsibility in China market.

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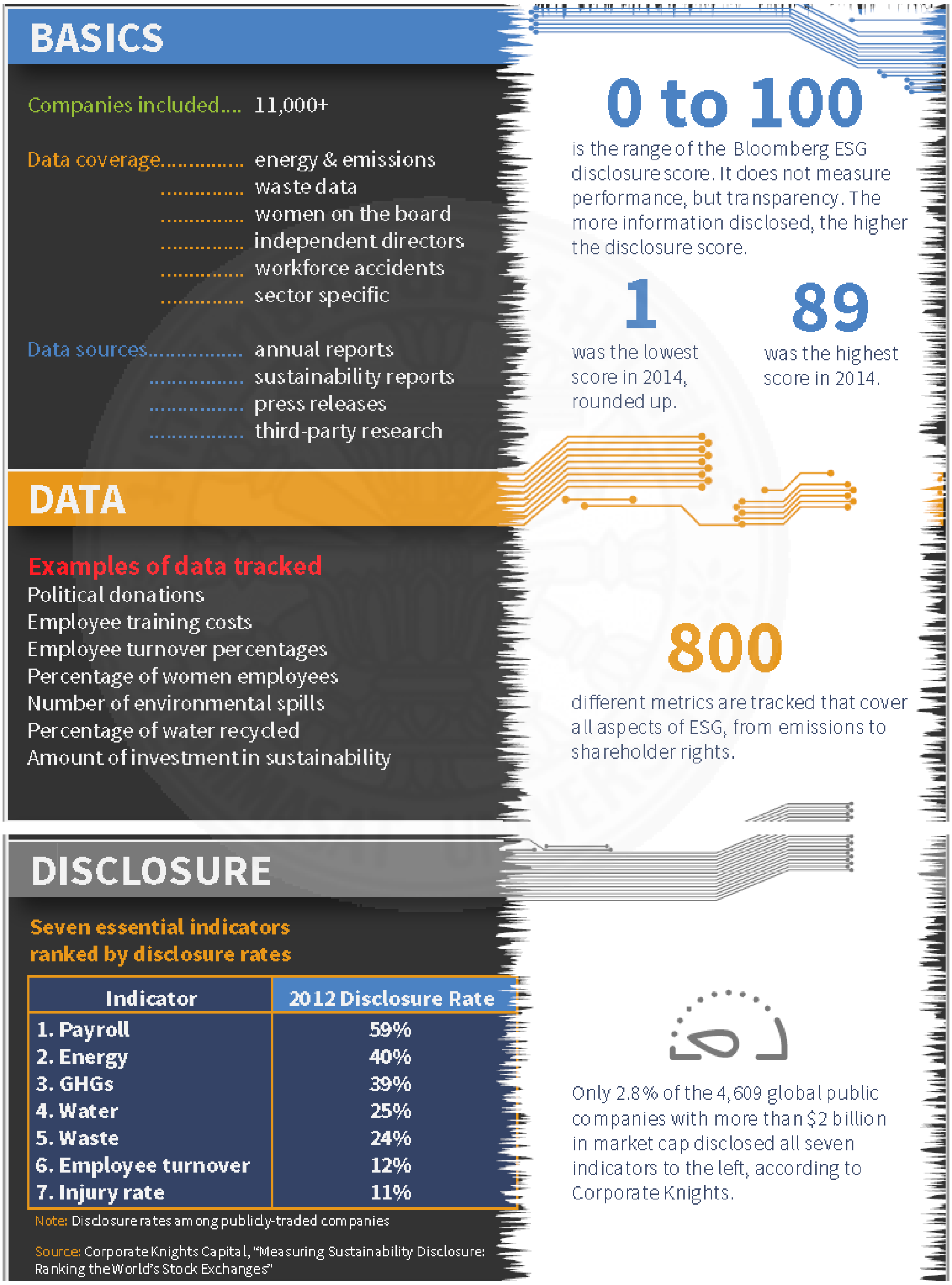
APPENDIX

APPENDIX A

UNDERSTANDING THE BLOOMBERG ESG NUMBERS



Source: http://framework-llc.com/wp-content/uploads/2016/01/Bloomberg-ESG-Infographic.pdf

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