

# INSTITUTIONAL OWNERSHIP AND SOCIAL AND SUSTAINABILITY REPORTING IN GREEN COMPANIES

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## Abstract

This research study explores the social and financial performance and sustainability costs on institutional ownership companies. The quantitative research method is used for this research study. The sample comprised of top forty US environmental companies from 2012 to 2014. The research question for this study is, what relationship is there between the corporate governance, corporate social and environmental performance, employee participation, and market and financial performance?. This research finds that there is a positive correlation among all the variables except for the sustainability costs. The social performance has a significant correlation with the institutional ownership than sustainability costs. The social performance had a positive impact on stock price than sustainability costs. The increased strategy of the CSR practices didn't motivate employee participation in the company's ownership structure, a negative correlation. Institutional ownership had a very weak positive effect on the employee stock ownership. Employee stock ownership had a strong correlation with the stock price. The quality and frequency of the CSR reporting varies from company to company; hence, the investors, stakeholders, and shareholders had to depend on the management goodwill.

**Keywords:** CSR, Social Performance, Sustainability Costs, Institutional Ownership, Ownership Structure, Financial Performance

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## 1 Introduction

The importance of the corporate social responsibility (CSR) to the stakeholders, shareholders, and executives have been the subject of focus for some time among the scholars of management. The social and environmental reporting has become an intangible resource for many companies which also has influenced the already complex governance system. However, the CSR performance may not fairly influence the institutional ownership due to the challenges faced by the companies towards the frequency, quality, and extent of reporting required to create added value. This suggests the importance of studying the relationship between the institutional ownership, CSR, and sustainability costs.

### 1.1 Purpose and background of study

This study is unique from the corporate governance and corporate social responsibility literature, as it focuses on the framework that includes the institutional ownership, corporate contribution to social welfare, employee participation, environmental costs, and market volatility and operational performance in the environmental companies<sup>4</sup>, a comprehensive empirical approach. Also, the ever increased concern from the stakeholders and shareholders regarding the effectiveness of the board

and corporate contributions towards the social performance and sustainability costs, make this study the relevant for the management literature. Mason and Simon (2014) stated that there is a need to adopt a systematic approach to balance between the stakeholder and shareholder goals, and at a same time, to incorporate methods of institutional ownership related to the CSR. Similarly, Waring (2008) stated that the acceptance of a wider audience of stakeholders resulted in an expectation beyond profitability, focus towards social and environmental performance embedded frameworks of the corporate governance.

The triple-bottom-line analysis of sustainable development includes economic, environmental and social aspects. The corporate citizenship demands ethical business behavior, good corporate governance, active participation in the social welfare, and balancing the needs of shareholders and environment protection practices such as, recycling and waste management. The objective of the corporate sustainability within the framework of the stakeholder theory, to create long-term shareholder value by taking responsibilities for and initiatives in respect of the economy, environment, and society. A proponent of the CSR believes that the CSR relates to intangible resources that may be valuable to the firm and therefore to its shareholders. It is also an important part of the corporate development and to society in terms of how companies operate, sustain, and succeed in the market and contribution to social welfare. As Frooman (1997) stated, the CSR contributes positively

<sup>4</sup> Biomass and Biofuel, Biotechnology, Fuel Cell Technology, Recycling and Waste Management, Renewable Companies, Pharmaceuticals, and Vehicle and Battery Technology.

towards wealth maximization objective and in some circumstances it is pre-requisite.

### **1.2 Critical perspectives on Corporate Governance, CSR, and Sustainability Costs**

The institutional ownership may ignore the corporate social responsibility as its primary objective is to benefit shareholders and stakeholders, profit maximization. The CSR is costly and there is no linkage with revenues. The CSR is more related with operational performance than achieving strategic objectives. Most of the senior management compensation is not conditioned on the performance of CSR. The management has no legal obligation to provide CSR information to the public for the accountability. The CSR is not part of the strategic goal, therefore, the budget allocation towards social contributions is limited. The power of wealth maximization can make the firms blind and irresponsible; hence, the social contribution to society is very limited. Also, the CSR reporting requires an understanding of the social norms and practices; that is, knowledge of laws and conformity to the laws, a costly undertaking for most companies, especially to small-sized companies. Another issue with the CSR is, it is voluntary and not required for the stakeholders' and the US Security Exchange Commission reporting. Therefore, the quality, relevancy, and the extent of the information provided in the annual corporate citizenship reporting varies, subject to the interest and risk management of the senior management. This has implications towards generating intangible corporate values and declaring executive bonus.

The environmental cost reporting is an important challenge companies are facing towards the CSR reporting, perhaps due to insignificant transactions towards environmental preservation activities or lack of capability towards communication of environmental accounting. This indeed undermines the CSR reporting. Also, inadequate or no disclosures on social performance, which portrayed firms as non-participation in the social welfare and environmental protection programs, a poor presentation of social accounting. As Joshi et al. (2001) stated that the accounting systems are designed to capture all the transactions into one account that makes it difficult to segregate social and environmental costs from others. Only visible costs can be noticed and disclosed. This indeed a misreporting.

### **1.3 Significance of institutional ownership, CSR, and sustainability study**

The significance of this research study is to explore the potential effects of the corporate governance on social, environmental, financial, and market performance. The issues that will be explored in this research study includes: is institutional ownership influences social and environmental performance?; is institutional ownership influenced financial and

market performance; and is institutional ownership influences employee stock ownership?. These concerns lead to the research question and hypotheses developments in this research study.

### **1.4 Research question and hypotheses**

#### **Research question:**

What relationship is there between the corporate governance, corporate social and financial performance, stock price, sustainability costs, and employee participation?.

#### **Hypotheses:**

H<sub>0</sub>: There is no relationship between the corporate governance, corporate social and financial performance, stock price, sustainability costs, and employee participation.

H<sub>1</sub>: There is a relationship between the corporate governance, corporate social and financial performance, stock price, sustainability costs, and employee participation.

## **2 Literature review**

### **2.1 Corporate Governance and Corporate Social Responsibility**

Jo and Harjoto (2011) believed that the CSR can be viewed as a component of the corporate governance, encouraging good business practices that promote accountability and transparency to the shareholders and the society in general. Pintea (2015) believes that the inconsistencies in defining corporate governance lead to the divergent interpretation of the relationship between corporate governance and CSR. Neubaum and Zahra (2006) study find that there is a positive relationship between the institutional ownership and CSP. This is supported by Johnson and Greening (1999) study, who stated that a higher proportion of external directors enhances CSP; therefore, legitimacy. Mattingly and Berman (2006) believed that effective governance should minimize negative CSR by minimizing negative impacts to CFP. Similarly, the effective governance leads to a positive impact to the CSR, which then have a positive influence to CFP. Waldman et al. (2006) finds that executives in developed countries are primarily interested with the CSR strategies that will maximize profit. Winberge et al. (2004) believes that the CSR is more valued-based and externally focused, whereas, corporate governance is internally focused and have strategic objectives to implement based on rules and regulations. Tudy and Pascal (2006) suggests that profit maximization includes playing a good corporate citizenship role and achieving economic objectives.

## **2.2 Corporate social responsibility and business ethics**

Fulop et al. (2010) believed that preserving ethical norms and social responsibility is difficult due to the complexity of moral beliefs and ethical standards among individuals and groups, in transitional economies. Bailey and Spicer (2007) believed that the business ethics focused on the specific business environment and system, and it is an integral part of the social culture framework. Zhang and Rezaa (2009) finds that when firms involved in high standards of ethical practice provide good short-term financial performance, also in transitional economies. This is supported by McWilliams et al. (2006) study, who find that the CSR and business ethics have been viewed as instrumental actions for improving long-run firm performance. It is also supported by Pfeffer and Salancik (1978), who find that business ethics policies minimize firm's legal liability and promotes a perception of being a good corporate citizen. Muller and Kolk (2010) believed that the CSR and business ethics are important variables to be used to study the firm performance. Stage (2006) finds that firms who favors CSR and ethical practices, tends to receive favorable corporate reputation and greater social acceptance. On the other hand, Durkheim (1966) believed that unplanned corporate changes to achieve better performance and modernization undermines the ethical business norms and invites cultural deviance and demoralization. This is supported by Bowie (1998), who believed that the business ethics may be viewed as a constraint on shareholder wealth maximization. In contrary, according to McMurrian and Matulich (2006) finds that there is a positive relationship between firm's ethical behavior and social activities, and profitability. The positive corporate image generated from the firm's ethical practices, assists towards achieving competitive advantage such as marketing products. Also, firm's ethical practices could reduce the cost of business transactions, thereby higher profitability, and building a foundation of trust with stakeholders.

## **2.3 Corporate social performance and financial performance**

Preston and O'Bannon (1997) find that when the financial performance meets its target, managers may reduce social expenditures to achieve short-term profit maximization to achieve bonus objectives. Conversely, when financial performance is below expectation, managers may engage in social programs to offset their disappointing results. On the other hand, Mahoney and Roberts (2007) study find no significant relationship between the corporate social performance and financial performance except for the environmental activities. McWilliams and Siegel (2001) believed that there are too many intervening variables to detect the direct relationship between the corporate social and financial performances. Waddock and Graves (1997) and Hillman and Keim (2001) find a positive relationship between the corporate social performance and financial performance. This result is

confirmed by Allouche and Laroche (2005b) and Wu (2006) in their meta-analysis. Also, Nelling and Webb (2006) study, applying the Granger causality technique, find a positive relationship based on the ordinary least square (OLS) regression models. McGuire et al. (1988) finds that lagged financial performance measures to strengthen current corporate social performance measures. They also find that prior performance is closely related to the corporate social performance than subsequent performance. Bowman & Haire (1975) found a statistically significant inverted U-relationship between the corporate social and financial performances. The mixed results may perhaps due theoretical and empirical limitations McWilliams and Siegel (2000), stakeholder mismatching (Wood and Jones, 2005), the carelessness of "contingency factors" (Ullmann, 1985), measurement errors (Waddock and Graves, 1997), or inaccurate or weak empirical analysis (McWilliams and Siegel, 2000).

### **2.3.1 Corporate social responsibility and stakeholder theory**

The stakeholder theory believes that the corporate social performance should be positively associated with the corporate social performance, as it enhances the satisfaction of stakeholders (Freeman, 1984). Similarly, Freeman et al. (2007) stated that the CSR strategies preserve and enhance corporate reputation, consistent with the stakeholder management theories. Theorists such as Freeman & Evan (1984) proposes that the managers typically increased the efficiency of their organization when external demand generated from social performance support stakeholder interest. In contrary, Cornell & Shapiro (1987) argues that the failure to meet the expectations of various stakeholders will create market fears, and therefore, will increase the corporate's risk premium and eventually result in profit minimization. Preston and O'Bannon (1997) states that when financial performance is strong, managers may reduce social expenditure to increase own short-term private gains. In contrary, when financial performance weakens, managers may attempt to offset and perhaps appear to justify their disappointing results by engaging in conspicuous social programs.

The scholars of neoclassical economics argued that the CSR strategies to enhance corporate value may increase firm's costs and could undermine competitive position in the market (Jensen, 2002). From an agency theory perspective, employing firm resources for the social performance strategies may favor managers' compensation rather than wealth generation for shareholders (Brammer and Millington, 2008). In contrary, Waddock and Graves (1997) believe that enhanced social performance may lead to acquiring better resources, higher caliber employees (Greening and Turban, 2000), and favorable marketing of goods and services (Fombrun, 1996).

Furthermore, according to Keim (2001), the good relationship between the management and stakeholders, the pre-requisite for the success of corporate social programs, provides better financial

performance, and could also assist in financing from pro-social investors (Kapstein, 2001). The study conducted by Serafeim and Ioannou (2010) finds that the public friendly firms are more successful in their CSR strategies. Also, the analysts (financial experts) who appreciate CSR strategies, also favors firm's strategic goals that invite value creation in the capital markets for the firm.

### 2.4 Environmental cost reporting dilemma

Henri et al. (2014) stated that the environmental costs have influenced the economic performance of the firms such as lower net income. They also believed that environmental costs are mostly hidden in general cost pools or accounts such as overhead and administrative expenses. This is supported by Wagner (2005) and Konar and Cohen (2001) studies that the firm's unsustainable environmental performance has a negative impact on intangible asset values such as brand equity. Ditz et al. (1995) find in their study that substantial environmental costs are not attributed to product cost. Also, there is no cost estimation system applied by the accountants to capture environmental expenditures. Therefore, most firms' accounting system failed to identify the full effect of environmental regulation on the cost. Joshi et al. (2001) states that an inability to identify environmental costs or segregate from other costs, may lead to inaccurate cost-volume-profit analysis, an invitation for product mispricing and costing, and incorrect capital investment decisions. This is supported by Epstein (1996) study, who find that the majority of firms ignores segregation of environmental costs from other costs, perhaps due to lack of proper accounting system or limited financial resources to capture such costs. Therefore, most companies couldn't able to identify total environmental expenditures on an annual basis. However, they do not provide further details on the extent of misreporting of environmental expenditures due to compliance with the environmental regulations or voluntary practices. Burnett and Hansen (2008) states that socioeconomic theory refutes the capitalist notion that preserving the environment or participate in environmental protection programs increases costs and thereby lower incomes. Similarly, Sardoni (1994) states that the environmental investment beyond a certain point will lower the marginal return in income. Konar and Cohen (2001) believes that better social performance could lead to more recycling and waste reduction.

## 3 Research methodology

### 3.1 Research method and data collection

This research study, on the relationship between the corporate governance, corporate social performance, financial performance, stock price, sustainability costs, and employee participation, requires collecting, counting, and classifying data, and performing analyses on statistical findings. It requires a process to include a method of deductive reasoning by the use of the measurement tools to collect the relevant data. Also, it requires only establishing associations among variables using effect statistics such as correlations. As such, the quantitative research method will be selected for this research study. This research study will collect financial data from a highly credible source, the US Securities and Exchange Commission (SEC) EDGAR filings database. The sample of top forty companies will be selected from the list of top one hundred environmental companies provided by the United States Environmental Protection Agency (EPA). To fulfill this study objective, companies who have consistently involved in the CSR reporting and have a complete record of financial information in the SEC EDGAR filings database, will only be selected. As such, most of the environmental companies will be ignored. The random sample method will be selected for this research study to avoid selection bias, as it is the purest form of probability sampling. Yates (2008, p. 27) believed that an unbiased random selection of individuals is important so that in the long run sample represents the population.

The surveys are believed to be useful when a researcher wants to collect data on phenomena that cannot be directly observed. It is a non-experimental, descriptive research method. Groves et al. (2004, pp. 4) stated: "survey is a systematic method for gathering information from (a sample of) entities for the purpose of constructing quantitative descriptors". As such, this research study will use the survey method to collect data from 2012 to 2014. Also, this research study will use regression model for the modeling and analysis of the numerical data, and will assume a confidence interval or alpha of five percent (typical in academic research).

### 3.2 Statistical model

This research study will try to understand the linkage between the corporate governance, social and financial performance, sustainability costs, employee participation, and stock price, a multi-equation model.

#### Regression Model:

$$Y_1^5 = c + B_1 D_{p1} + B_2 D_{p2} + B_3 D_{p3} + B_4 D_{p4} + B_5 D_{p5} + B_6 D_{p6} + B_7 D_{p7} + \epsilon$$

Corporate Governance = Social Performance + Sustainability Costs + Employee Participation + Stock Price + Sales + Error.

<sup>5</sup> Y<sub>1</sub>= Corporate Governance; c=constant predictor; B<sub>1</sub>=influential factor for Social Performance; B<sub>2</sub>=influential factor for Sustainability Costs; B<sub>3</sub>=influential factor for Employee Participation; B<sub>4</sub>=influential factor for Stock Price; B<sub>5</sub>=influential factor for Sales; ε=error; D<sub>p1</sub>=value of Social Performance; D<sub>p2</sub>=value of Sustainability Costs; D<sub>p3</sub>=value of Employee Participation; D<sub>p4</sub>=value of Stock Price; D<sub>p5</sub>=value of Sales.

The purpose of designing this statistical model for the corporate governance and CSR literature is to understand the dynamics of the relationship between these variables, in the top US environmental companies. This is indeed a multi-dimensional approach to explore the possible determinants of the corporate governance framework, especially social and environmental performance. The corporate governance factor will be based on ownership of at least five percent, an institutional ownership. The financial performance factor will be based on sales, to understand any influence of the environmental companies' financial performance to institutional ownership. Social performance factors will be based on companies' social involvements, namely, charities, sponsorship to social programs managed by the non-profit organizations (NPOs), research grants for environmental studies, education grants to promote education in the communities, and environmental tax credits that are not explicitly stated as environmental

expenditures in the financial records. This factor is important to understand whether social performance has any role to play on the institutional ownership. Sustainability costs, also an important factor, will be based on the recycling and waste management, environmental preservation programs, and environmental liabilities and fines, to understand the nature and extent of influence to the institutional ownership. Employee participation will be based on the employee stock options, to understand employee stock ownership, especially of management on the institutional ownership. Market Performance will be based on the stock market price at year-end, to understand the market influence to the corporate governance.

## 4 Results

### 4.1 Correlations

Table 1. Correlations

		Corp. Gov.	Social Perform.	Sustain. Costs	Employ. Particip.	Stock Price	Sales
Pearson Correlation*	Corporate Governance	1.000	.284	-.060	.009	.349	.254
	Social Performance	.284	1.000	-.108	-.058	.098	.229
	Sustainability Costs	-.060	-.108	1.000	-.079	-.203	.125
	E. Participation	.009	-.058	-.079	1.000	.543	.021
	Stock Price	.349	.098	-.203	.543	1.000	.110
	Sales	.254	.229	.125	.021	.110	1.000
	Sig. (1-tailed)**	Corporate Governance	.	.001	.256	.462	.000
Social Performance		.001	.	.120	.264	.144	.006
Sustainability Costs		.256	.120	.	.196	.013	.088
E. Participation		.462	.264	.196	.	.000	.411
Stock Price		.000	.144	.013	.000	.	.117
Sales		.003	.006	.088	.411	.117	.

\*.05 \*\*.025

The table 1 had shown the correlation results between the corporate governance, social and financial performance, sustainability costs, employee participation, and stock price, in the environmental companies. The correlation between social performance and corporate governance was .284, a significant positive ratio. This result had indicated that the institutional ownership enforced good corporate citizenship practices, and the board gives the highest priority towards generating intangible resources such as the company image and brand name. Demsetz et al. (1997) study found that the CSP was positively associated with the board independence, but negatively associated with the ownership concentration. They also argued that CSP benefits may not transfer to shareholders in equal proportion as costs. The correlation between sustainability costs and corporate governance was -.06, indicated that the institutional ownership had negatively influenced the environmental costs, perhaps either due to misreporting of the environmental costs as general costs or immaterial for the board to allocate resources for the environmental preservation activities.

The correlation between the social performance and sustainability costs was -.108, a negative ratio. This indeed suggested that the majority of the companies had participated in the social programs and environmental preservation practices, but on the unequal monetary basis. That is, the social program expenditures exceeded environmental preservation costs, under the system of voluntary social accounting practices. However, it was believed that the sustainability costs may be much higher if the sustainability cost reporting was standardized by the SEC, to experience superior reporting. Gray (2001) believed that the environmental reporting by the companies was mostly incomplete, that is, a partial social reporting and poor standard of environmental and sustainability reporting, characteristics of non-legislative environmental reporting practices.

The correlation between the corporate governance and employee participation (employee stock ownership) was .009, a very weak positive ratio, indicated that institutional ownership had a negligible influence on employee stock ownership. The correlation between the social performance and

employee participation was -.058, indicated that the company's social initiatives were not communicated properly to the employees. That is, the management had failed to communicate its social accounting practices and achievements company-wide, to motivate employees to become part of the ownership structure. In addition, either the management had failed to motivate employees to participate extensively in the stock options program; or the existing management corporate policy which had limited the employees to purchase and exercise stock options; or the management ineffective communication system on the corporate social activities.

The correlation between sustainability costs and employee participation was -.079, a negative ratio, indicated that the employees simply viewed the management environmental preservation practices as the non-social performance or general operational costs. Also, most of the employees may not aware of the environmental performance of the company, again an indication of the management failure to communicate the environmental practices and achievements company-wide. Orlitzky (2005) stated that most of the academic researchers considered the corporate social responsibility as a cost factor, because it has no positive impact (revenues generation) on employees, investors, customers, and stakeholders.

The correlation between the corporate governance and stock price was .349, indicated that the stock price had a significant positive influence on institutional ownership. The correlation between the social performance and the stock price was -.098, indicated a negative impact of social activities to the stock price. Also, the correlation between sustainability costs and the stock price was -.203, a significant negative impact on the sustainability costs to stock price. These results had indicated perhaps due to the social and environmental costs were not linked to revenue generation, therefore, had impacted negatively to the bottom line and the stock price, consistent with the stakeholder theory. Van Dijken (2007) believed that the stock markets will not

appreciate the unpublicized social participation, such as charities and other welfare programs by a firm unless these activities have influenced firm's reputation.

The correlation between corporate governance and sales was .254, a significant positive ratio. The correlation between social performance and sales was .229, also a significant positive ratio. According to Hillman and Kiem (2001), the corporate social responsibility was a single broad model that includes a series of actions focused on stakeholder and social management. The correlation between sustainability costs and sales was .125, also a positive ratio. Aiguilera et al. (2007) and the meta-analysis of Orlitzky et al. (2003) studies found a positive link between the environmental costs and economic performance. However, Wood and Jones (2005) study found a negative relationship between the environmental performance and shareholder wealth. Mackey et al. (2007) believed that, the environmental preservation practices may create product differentiation in the market, which will have a greater probability to improve the present value of a firm's future cash flow by enabling a firm to differentiate its products, avoiding costly environmental fines, and minimizing a company exposure to risk.

The table 2 had shown average R<sup>2</sup> (timeliness) of 24.5%, the relationship between corporate governance, social and financial performance, sustainability costs, employee participation, and stock price. This result validates the statistical model and the correlation results. The research study of McWilliams and Siegel (2000), achieved R<sup>2</sup> of 29%, the relationship between firm performance, capital social performance, and R&D to sales ratio. The F-test and p-value (sig.) results had shown the regression model was statistically valid to draw conclusion.

## 4.2 Regression Model and Validity

### 4.2.1 Model Summary

**Table 2.** Model Summary<sup>b</sup>

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. of Estimation	R <sup>2</sup> Change	F Change	df <sub>1</sub>	df <sub>2</sub>	Sig.
.495 <sup>a</sup>	.245	.212	14012353047.09030	.245	7.398	5	114	.000
ANOVA <sup>a</sup>								
		Sum of Square	df	Mean Square	F	Sig.		
Regression		7262699468064 589000000	5	14525398936212 917800000	7.398	.000 <sup>b</sup>		
Residual		2238344832245 829000000	114	1963460379163 00770000				
Total		2964614779052 2877000000	119					
a. Predictors: (Constant), Sales, E. Participation, Sustainability Costs, Social Performance, Stock Price.								
b. Dependent Variables: Corporate Governance								

**Table 3. Coefficients**

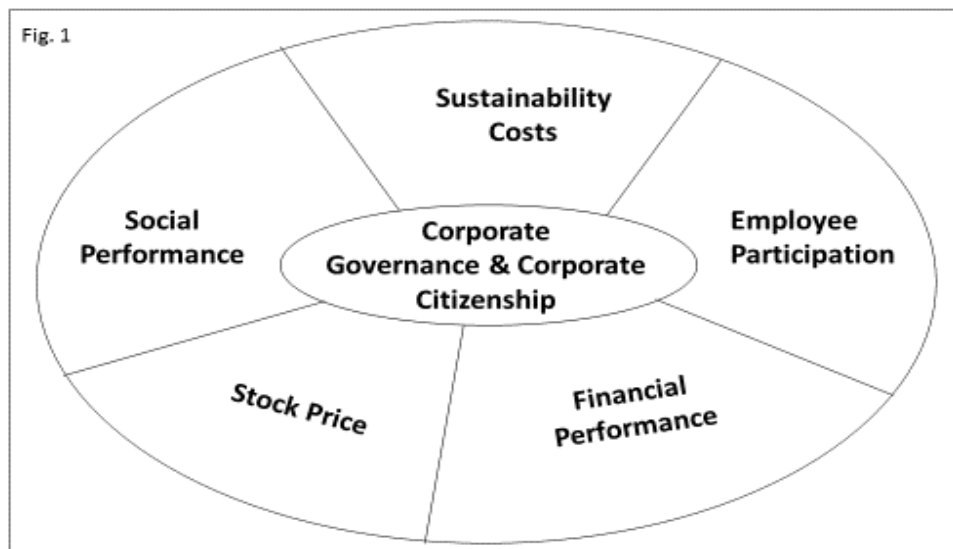
Model	Unstandardized Coefficients		Stand. Coef.	t	Sig.	95% Confidence Interval For B		Correlations			Collinearity Statistics		
	Beta	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
Const.	-2454462 532.049	2122775679 .314		-1.156	.250	-6659664 803.099	17507397 37.001						
Social Perform.	9.805	4.347	.192	2.255	.026	1.193	18.417	.284	.207	.184		.913	1.095
Sustain. Costs	.783	6.472	.010	.121	.404	-12.039	13.605	-.06	.011	.01		.921	1.086
Employ. Participa.	-.340	.153	-.217	-2.222	.028	-.643	-.037	.009	-.204	-.181		.692	1.446
Corp. Govern.	1213383 1.473	28171430	.432	4.307	.000	65530993. 008	177145768	.349	.374	.351		.658	1.521
Stock Price	80.504 -.082	.830 .042		1.944	.054	.002	.165	.254	.179	.158		.910	1.099

#### 4.2.2 Regression Equation

$$\text{Corporate Governance} = -2454462532.049 + 9.805\text{Social Performance} - .783\text{Sustainability Costs} - .340\text{Employee Participation} + 121338380.504\text{StockPrice} - .082\text{Sales}$$

In the table 3, the collinearity statistics had shown all the variables had a tolerance level close to one (statistical rule of thumb), suggested that multicollinearity was not a concern. Also, the variance inflation factor (VIF)<sup>6</sup> ranged from 1.086 to 1.521, indicated that the multicollinearity was not a concern in the statistical model to influence the results. The betas for the social performance and stock price had a strong positive impact to the corporate governance model. In contrary, the betas for the sustainability costs, employee participation, stock price, and sales had a weak negative impact. The constant was a very large negative amount in the Corporate Governance framework. The t-tests (relationship between the two variables) confirmed the significance except for the sustainability costs and stock price. The confidence interval test indicated the unstandardized coefficients were within the prescribed ranges

#### 4.3 Derived Statistical Diagram



<sup>6</sup> According to Kotos (2004), the VIF exceeds ten, then the variables were collinear to others.

## 5 Conclusion

This research had succeeded in understanding the relationship between the corporate governance, social performance, sustainability costs, employee participation, and market and financial performance. Firstly, this research study found a positive correlation between all the variables except for the sustainability costs. Secondly, social performance had the significant correlation with the institutional ownership than sustainability costs. Thirdly, the quality and frequency of the CSR reporting vary from company to company; hence, the investors, stakeholders, and shareholders had to depend on the management goodwill. Fourthly, the social performance had a positive on stock price than sustainability costs. Fifthly, the increased strategy of the CSR practices didn't motivate employee participation in the company's ownership structure, negative correlations. Sixthly, institutional ownership had a very weak positive effect on the employee stock ownership. Seventhly, employee stock ownership had a strong correlation with the stock price.

There were a number of issues aroused from this research that invited further research. Firstly, the relevancy of the CSR reporting to investors, stakeholders, and shareholders in the external ownership companies. Secondly, will the environmental accounting be material to enforce separate presentation in the annual report in the institutional ownership companies. Thirdly, the extent of adoption of eco-balances and the ramification of the ecological footprint. Fourthly, will the corporate governance be linked to the corporate sustainability as a strategic objective. Fifthly, the effect of globalization and its diversified culture on the CSR reporting in the non-management controlled companies. These issues invited scholars to investigate further and make an invaluable contribution to the CSR and corporate governance literature.

These results were possible after assuming three limitations. Firstly, the sample represented the specialized sectors related to environment such as, renewable energy, fuel cell technology, biomass and biofuel, recycling and waste management. Secondly, the study focused on the period from 2012 to 2014. Thirdly, the social and environmental information provided in the CSR and annual reports were voluntary, incomprehensible due to lack of regulations.

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**Appendices**

Appendix A: Table 4 Descriptive and Residuals Statistics			
Descriptive Statistics			
C. Governance	6306138158.81	15783766735.39416	120
Social Performance	108050082.86	309243198.36530	120
Sustainability Costs	82857165.44	206806751.66286	120
E. Participation	2323168941.80	10089358081.09482	120
Stock Price	57.18	56.22753	120
Sales	18206672333.33	32012384480.65794	120

Appendix B: Table 5 Residuals Statistics <sup>a</sup>				
	Minimum	Maximum	Mean	Std. Deviation
Predicted Value	-7304877568	29320615936	6306138158	7812239625
Residual	-1.742	2.946	.000	1.000
Std. Predicted Value	1433664896	8929183744	2686428069	1619338839
Std. Residual	-14014819328	28974718976	6305864760	8060896074

a. Dependent Variable: Corporate Governance

Appendix C: Table 6 Coefficient Correlation <sup>a</sup>							
Model		Sales	Employ. Particip.	Sustain. Costs	Social Perform.	Stock Price	
1 Correlations	Sales	1.000	.023	-.176	-.234	-.116	
	Employee Participation	.023	1.000	-.030	.122	-.547	
	Sustainability Costs	-.176	-.030	1.000	.124	.193	
	Social Performance	-.234	.122	.124	1.000	-.105	
	Stock Price	-.116	-.547	.193	-.105	1.000	
	Covariances	Sales	.002	.000	-.048	-.043	-137273.660
		Employee Participation	.000	.023	-.030	.081	-2359698.705
Sustainability Costs		-.048	-.030	41.893	3.480	35243989.761	
Social Performance		-.043	.081	3.480	18.901	-12800855.580	
Stock Price		-137273	-2359698	35243989	-12800855	7.93E+14	
				98			

a. Dependent Variable: Corporate Governance