

CORPORATE SUSTAINABILITY: DO EXECUTIVES AND INVESTORS CARE?- AN EMPIRICAL STUDY

Sekhar Amba, New York Institute of Technology

ABSTRACT

This research examines the association between corporate sustainability reporting ESG score and firm's financial performance, Executive compensation. Empirical analysis is performed on firms listed on S&P 500 and S&P/TSX firms. Regression method is used to test the impact of ESG score of a year on next years' ROE and Executive compensation. Empirical evidence suggests that ESG scores of an year has an impact on ROE of the following year during the period of investigation 2011 to 2015, whereas ESG scores showed similar impact on Executive compensation from the year 2013 onwards suggesting executive compensation is tied to corporate sustainability performance.

JEL: G3, M2

KEYWORDS: Sustainability, ESG, ROE, Executive Compensation

INTRODUCTION

In everyday life, at homes and offices attention is being paid to save water, energy and attempt to minimize waste. Schools are focusing their energies in inculcating environmental consciousness among youth. Environmentally conscious consumers are perceived to choose more sustainable products and consuming services from firms who pay attention to Environment and society. These environment conscious awakening public tend to buy products which are environment friendly or invest in those companies' stock who produce such products and services incorporating environment friendly and sustainability factors in designing and production process. Investment community started paying attention in identifying those companies which are environmentally conscious for their portfolio strategies such as socially responsible Investing (SRI). SRI represents an investment style which screens companies in a portfolio based on social moral ethical and religious criteria thus excluding companies whose revenue stream even a small percentage comes from sin companies such as weapons tobacco alcohol and gambling. Thus, SRI strategies exclude stocks of those companies in portfolio of investments in certain industries or sub-industries which are associate with socially taboo areas (Mahn, 2016). But the critics argue in favor of excluding companies that were perhaps "sinful" in certain areas and still have positive and sustainable characteristics. This exclusion minimizes risk diversification opportunity for portfolio managers thus limiting growth potential of investment (Mahn, 2016). These criticisms of SRI lead to developing a broader ecosystem of investment choices by including Environmental, Social and Governance (ESG) factors. Environmental factors represents proactive involvement of companies in natural environment, suppliers, customers and communities where they operate, Social factors represents companies managing strategies with employees and Governance factors represents companies leadership, executives' pay, audits and internal controls and stakeholder rights factors. Companies such as Thomson Reuters, MSCI, Morning star and Sustanalytics conduct in-depth research on arriving ESG scores for companies, helping investors and portfolio managers in making their investment choices.

Sustainability measures often referred to as environmental, social and governance metrics, although definitions vary considerably among activists and investors. Sustainability development is defined as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Hubbard 2009). The primary objective of any organization is to maximize wealth of the shareholders which necessitates management to take decisions resulting in higher dividend yield and increase in market price of the shares. Market price is an indicator of progress, prosperity, profitability, productivity and prospects of a business enterprise. It’s important that firms board of directors and top executive team understand investor interests and other stake holders. Based on their understanding organization’s leadership align corporate strategy and behavior to achieve investor’s short term and long-term expectations. However sustainability philosophy hypothesize that we move beyond the narrow version of classical economic theory and evolve corporate strategies beyond maximizing shareholders wealth and thus evolve strategies in addressing the demands of diverse group of stakeholders (Lopez,Garcia & Rodriguez,2007). A corporation which accommodates triple platform Environmental, Social and Governance contributes to sustainable development (Ngwakwe, 2008).If executives perceive that their investors focus on short-term profits, they will tend to organize sales, and cost management, to maximize such profits rather than make certain long-term investments. MIT Sloan Management Review-BCG survey 2016(Gregory & Kruschwitz2016) found that the Seventy-four percent of all surveyed investors believe that sustainability performance matters more than it did three years ago. According to the survey greater number of investors making investment decisions based on sustainability performance. Thus, corporate leaders must pay attention to growing investor attention to corporate involvement in sustainability and address shareholders curiosity about ESG investments and shareholders wealth maximization. A recent global online study “Sustainability Outperform Those That Don’t” (Nielsen N.V, 2015) 66% of global consumers say they’re willing to pay more for Sustainable Brands, up 55% from 2014. 73% of global millennials are willing to pay extra for sustainable offerings, up from 50% in 2014.A survey conducted by Global Sustainable Investment Alliance found that assets under management integrating sustainability investment strategies reached \$21.1 trillion globally as of the beginning of 2014, up 61% from the onset of 2012 and in 2016 its amount to \$22.89 trillion up 25% from 2014(Global Sustainable Investment Review 2016). One way to compensate executives is based on sustainability scores. Coro (2013) in her research “Sustainable Pay” found that 57% of Canadian companies listed on TSX 60, consider sustainability in annual incentive plan of which 24 companies awarded bonus for annual sustainability performance.

Thus, it’s pertinent to explore whether Executives and investors really care about companies ESG involvement or simply care about just monetary gains irrespective of ESG score. This research paper attempts to explore whether sustainability matters in investment choices and do executives’ pay is incentivized in adopting sustainability in creating shareholders wealth within the context of Canadian publicly traded firms. This paper is divided in to five sections: Introduction, Literature Review, Data & Methodology, Results &Discussions and Conclusion & Recommendations.

LITERATURE REVIEW

ESG measurements are expected to shed light on additional dimensions of corporate performance, which accounting data fails to reveal thus contending company’s financial statements fails to communicate to investors and external stake holders about the value of reputation, quality, brand equity, safety, workplace culture and environmental pro-active measures which are more significant than ever in a knowledge-based global economy. Thus, this ESG scores can be utilized by investors in evaluating company’s performance in addition to accounting measures (Galbreath 2013, Basen & Kovacs 2008).

Research by Dyck ,Lins, Karl and Lukas (2015) in their research paper examined institutional investors influence on a firm’s commitment to corporate social responsibility (CSR) for a large sample of firms

from 41 countries over the period 2004 through 2013 found that institutional ownership is positively associated with firm-level environmental and social commitments. These positive associations are attributed to domestic institutional investors and non-U.S. foreign investors whereas U.S. institutional investors holdings did not show such association. These higher associations are noticeable with long-term investors such as pension funds but not with hedge funds. Institutional investors, predominantly 28% of mutual funds and 40% of pension funds filed ESG-related requests to their portfolio companies in the US and Europe, respectively (Dyck et al. 2015). According to Barko, Cremers and Ronneboog (2017) who studied investor activism promoting ESG improvements among 660 companies globally with higher market share, analyst coverage, stock returns, and liquidity over 2005-2014 found significant impact of good ESG track record on positive sales growth.

Evans, Peiris and Dinusha (2010) who researched on relationship between ESG factors and financial performance of US listed companies using a multifactor framework concluded a significant positive relationship between ESG ratings and both return on assets, market to book value measures. Feldman, Soyka and Amer (1997) investigated link between firms' environmental performance and stock price using 300 of largest public companies in US found companies those who commit investments in environment management systems beyond regulatory compliance increased shareholders value and observed that investments in environment management systems such as tools, methods, skill building within their workforce and implementing are costly but when appropriately evaluated many of these investments may provide substantial positive returns and thus maximizes shareholders wealth.

In another important and interesting research by El Ghouli, Guedhami, Nash and Patel (2016) who studied the influence of media on firms' engagement in CSR activities over the period 2003 to 2012 using a large sample of 4,396 unique firms from 42 countries, found strong evidence that firms engage in more CSR activities especially where the media enjoy more freedom. Analysis also shows that employment conditions are a more relevant influence than other stakeholder criteria and a company's involvement in more general non-stakeholder related social issues contributes negatively to both operating performance and stock return (El Ghouli et al. 2016).

Followers of conventional view argue that environmental initiatives impose additional costs on corporations whereas Wagner (2010) and Ameer and Othman (2012) suggest such a sustainability efforts create a "win-win situation" by enriching performance and social welfare whereas Wagner and Wehrmeyer (2001) challenges both these views and supports an inverse U shaped relationship but McWilliams and Siegel (2001) researchers supports neutral association between firms' responsible behavior and resulting benefits. The inconsistency in results is also evident from the comparison of other empirical findings (Earnhart & Lízal, 2007). A survey conducted by McKinsey in February 2010 from 1,946 executives across industries and regions concluded that more than 50% of CEOs factored corporate sustainability as "very" or "extremely" important for overall corporate strategy (Bonniss, Gorner & Jones 2010).

Eccles, Ioannis and George (2014) investigated the effect of "corporate sustainability on organizational processes and performance" observed that in a sample of 180 US companies, High Sustainability firms, boards who adopted sustainability policies by 1993, linked top executive compensation to sustainability metrics by 2009 whereas Low sustainability companies who did not adopt sustainability had no such evidence. High sustainability companies had high probability of establishing processes of stakeholder's engagement and significantly outperformed over low sustainability firms on the long run in terms of stock returns and financial performance (Eccles, Ioannis & George 2014).

Ioannis and George (2017) who examined implications of regulations mandating the disclosure of ESG information in China, Denmark, Malaysia, and South Africa observed that regulations improved sustainability disclosure driving increased firm valuations as reflected in Tobin's Q measure and

improving corporate value. On the contrary Eccles et al. (2014) concluded any forced ESG disclosure regulation on organizational processes would incur cost for the company, impacting firm's valuation negatively. Firms with higher ESG disclosure enjoy brand, reputation and access to finance (Bhattacharya and Luo 2006; Cheng, Ioannou & Serafeim 2014).

DATA AND METHODOLOGY

According to Sustainalytics the portfolio Sustainability Score is an asset-weighted average of normalized company-level ESG scores with deductions made for companies involved in controversial incidents, such as environmental accidents, fraud, or discriminatory behavior. Yearly data on variables executive compensation (EXECOMP), Return on Equity (ROE) and ESG scores of the firms were extracted from Sustainalytics, a global leader in sustainability analysis. This research focuses on studying relationship between ESG score and financial performance (ROE), executive compensation in firms listed in S&P 500, S&P/TSX markets for the years 2011 to 2015. After accounting for missing data a total of 646 companies are included in this research of which 477 US companies traded on S&P500 and 169 Canadian companies traded on S&P/TSX. Regression analysis is used to study the relationship between ESG as independent variable and ROE EXCOMP as dependent variables. The following hypotheses are tested using regression models.

H₁: Current year ROE is positively impacted by lagged ESG score.

$$ROE_t = \text{constant} + \beta * ESG_{t-1} \quad (1)$$

H₂: Current year EXECOMP is positively impacted by lagged ESG score.

$$EXECOMP_t = \text{constant} + \beta * ESG_{t-1} \quad (2)$$

RESULTS AND DISCUSSIONS

H₁: Current Year ROE is Positively Impacted by Lagged ESG Score

Investors and customers are expected to care for corporation's active involvement in improving environmental, social and governance aspects which translates into generating sales growth and thus better ROE leading to a greater executive compensation. ROE communicates how good a company is at rewarding its shareholders for their investment. First we examine the relationship between current year ROE with lagged ESG scores to study impact of ESG performance on ROE next year. Results of regression models are shown in table 1. In equation a, table 1 lagged ESG scores 2011 is regressed on dependent variable ROE 2012 and found that F statistic 9.651, beta value 0.121 is positive and significant at 1% level. Beta value 0.121 suggests 12.1% change in ROE for a unit change in ESG score. Though R² value is low and ROE is impacted by many other performance metrics of firm, ESG scores are found to be significant. In general there is a noticeable positive and significant impact of ESG scores on ROE over the years 2011 to 2015. In the regression models a to d as the F statistics, coefficients are significant concluding ESG score has a significant positive impact on ROE for the years 2012, 2013, 2014, and 2015. Thus regression results supports hypothesis H₁

H₂: Current year EXECOMP Is Positively Impacted by Lagged ESG Score

Boards of public traded companies with geographically dispersed ownership are at a disadvantage in channeling company's executive's latent energies in maximizing shareholders wealth for which they are hired for. Executive compensation is an instrument for addressing such agency problem. Management strategic actions in implementing Environmental, Social and Governance mechanisms

invites Investors and customer's attention towards products and services they produce and expected to increase sales growth and sales turnover in subsequent years. Thus the relationship between current years EXECOMP with lagged ESG scores is examined. Results of regression models are shown in table 2. In model a, table 2 lagged ESG scores 2011 is regressed on dependent variable EXECOMP 2012 and found that F statistic 0.852, beta value -11469.96 is negative and not significant at either 1%,5% and 10% levels. But in model b lagged ESG scores 2012 is regressed on dependent variable EXECOMP 2013 and found that F statistic 0.6369 significant at 5% level, beta value 12545 is positive and significant at 5% level. Models b,c and d are significant and lagged ESG scores for the years 2012,2013 and 2014 shows a positive impact on EXECOPM next year. ESG scores has shown a significant and positive impact on EXECOMP variable.

Table 1: Regression Results

Model	C	Beta [t Value] (Sig)	R ²	F (Sig)
a. ROE ₂₀₁₂ = constant + β*ESG ₂₀₁₁	9.649	0.121 [3.107] (0.002)***	0.015	9.651 (0.002)***
b. ROE ₂₀₁₃ = constant + β*ESG ₂₀₁₂	12.566	0.066 [1.715] (0.087)*	0.004	2.942 (0.087)*
c. ROE ₂₀₁₄ = constant + β*ESG ₂₀₁₃	12.382	0.150 [2.373] (0.018)***	0.008	5.631 (0.018)***
d. ROE ₂₀₁₅ = constant + β*ESG ₂₀₁₄	7.297	0.242 [2.529] (0.012)**	0.009	6.395 (0.012)***

This table shows' regression results of impact of lagged Environmental, Social and Governance score on current return-on-equity. ***, **, and * indicate significant at 1% ,5% and 10% levels.

In general there is a noticeable positive and significant impact on current years ROE is positively and significantly impacted by lagged ESG scores over the years 2012 to 2015. Current year EXECOMP is positively impacted by lagged ESG score is not supported for the year 2012 but evidenced support for the years 2013, 2014 and 2015.

Table 2: Regression Results

Model	C	Beta [t Value] (Sig)	R ²	F (Sig)
a. EXECOMP ₂₀₁₂ = constant + β ₁ *ESG ₂₀₁₁	1822717	-11469.96 [-0.923] (0.357)	0.006	0.852 (0.357)
b. EXECOMP ₂₀₁₃ = constant + β ₂ *ESG ₂₀₁₂	1098493	12545 [2.524] (0.012)**	0.010	6.369 (0.012)**
c. EXECOMP ₂₀₁₄ = constant + β ₂ *ESG ₂₀₁₃	1118682	13827 [2.878] (0.004)***	0.012	8.284 (0.004)***
d. EXECOMP ₂₀₁₅ = constant + β ₁ *ESG ₂₀₁₄	1393271	11532 [2.386] (0.017)**	0.009	5.694 (0.017)**

This table shows' regression results of impact of Environmental, Social and Governance score on executive compensation. ***, **, and * indicate significant at 1% ,5% and 10% levels.

CONCLUSIONS AND RECOMMENDATIONS

Responsible Investment implies integration of ESG practices in firm's decision process. Investors and financial service professionals must pay attention to firms' controversial environmental practices or vulnerability practices from controversial supply management practices. Investments in firms Environment, Social and Governance systems require a significant financial investment on a continuous basis. This also requires a significant effort of management in identifying such sustainable practices. These investments are expected to create wealth to shareholders in subsequent periods as these impacts will be perceived by stakeholders. Thus a natural question is do investors or executives care such an Investment? This research paper focuses on sustainability reporting ESG score which measures companies Environmental, Social and Governance factors and its impact on investors return & executive compensation. Data on ROE, Executive compensation and ESG scores were collected for the years 2011 to 2015 on 646 publicly traded companies listed on S&P 500 and S&PTSX. Regression method is used to study impact of lagged ESG score on next year's ROE and executive compensation. Investigation suggests that ESG score of a year has an impact on next year's ROE. But the past scores of ESG collectively have no impact on ROE suggesting investors are not keen about historical scores of ESG but immediate near sustainability performance.

ESG scores of 2011 did not have any impact on executive compensation on 2012. However 2012, 2014 and 2015 has significant impact on executive compensation on subsequent years 2013, 2014 and 2015 respectively. This suggests that executives' pay is tied to achieving better suitability score otherwise executives are sustainable conscious are rewarded from 2012 onwards signaling that corporations start recognizing significance of achieving sustainability. This research concludes that investors do care for sustainability activism of the firm as it impacts ROE thus maximizing shareholders wealth and rewarding such executives for their active engagement in sustainability measures. More such research is encouraged using other investor's performance measures and size of the firm as investments in ESG activities are subject to financing scarcity. This research contributes to scarcely existing literature on sustainability and executive compensation and investors returns.

REFERENCES

- Ameer Rashid and Othman Radiah (2012): Sustainability Practices and Corporate Financial Performance: A Study Based on the Top Global Corporations (October 15, 2012). *J. Bus Ethics* (2012) 108:61-79, DOI 10.1007/s10551-011-1063-y.
- Barko.T,Cremers.M and Renneboog.L (2017): Activism on Corporate Social Responsibility. European Corporate Governance Institute (ECGI) - Finance Working Paper No. 509/2017 ; TILEC Discussion Paper No. DP 2017-021.
- Bassen, A., Kovacs, A. M.(2008): Environmental,Social and Governance Key Performance Indicators from a Capital Market Perspective, *Zeitschri_fur Wirtscha_s und Unternehmensethik*, 9, 2:182–192, ISSN 1439-880X.
- Bhattacharya, CB., and L. Xueming.(2006): Corporate social responsibility, customer satisfaction and market value. *Journal of Marketing* 70 (4): 1–18.
- Bonnis,Gorner and Jones (2010) : How companies manage sustainability: McKinsey Global Survey results. Retrieved from <https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/how-companies-manage-sustainability-mckinsey-global-survey-results>

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35(1), 1-23.

Coro Strandberg (March 2013) , Sustainable Pay: How TSX 60 companies compensate executives for sustainability performance retrieved from <http://corostrandberg.com/wp-content/uploads/2013/03/executive-sustainability-compensation-report.pdf>

Dyck Alexander, Lins Karl V, Roth Lukas and Wagner Hannes F (December 2015) Do Institutional Investors Drive Corporate Social Responsibility? *International Evidence*

Earnhart, D., & Lizal, L. (2007). Effect of pollution control on corporate financial performance in a transition economy. *European Environment*, 17(4), 247-266.

Eccles, Robert G. and Ioannou, Ioannis and Serafeim, George (2014): The Impact of Corporate Sustainability on Organizational Processes and Performance (December 23, 2014). *Management Science*, Volume 60, Issue 11, pp. 2835-2857, February 2014

El Ghouli Sadok, Guedhami Omrane, Nash Robert C. and Patel Ajay (2016): New Evidence on the Role of the Media in Corporate Social Responsibility. *Journal of Business Ethics* 11 November 2016

Evans, John R. and Peiris, Dinusha (2010): The Relationship between Environmental Social Governance Factors and Stock Returns . UNSW Australian School of Business Research Paper No. 2010ACTL02

Feldman, S.J., Soyka, P.A., and Ameer, P.G. (1997): Does Improving a Firm's Environmental Management System and Environmental Performance Result in a Higher Stock Price?, *Journal of Investing*. Vol. 6(4). p. 87-97

Gregorey Unruh, D. Kiron, N. Kruschwitz, M. Reeves, H. Rubel, and A.M. zum Felde (2016): "Investing For a Sustainable Future," *MIT Sloan Management Review*, May 2016.

Galbreath, J. (2013). ESG in focus: The Australian evidence. *Journal of business ethics*, 118(3), 529-541.

Global Sustainable Investment Review (2016): "Global Sustainable Investment Alliance" Retrieved from http://www.gsi-alliance.org/wp-content/uploads/2017/03/GSIR_Review2016.F.pdf

Hubbard, Graham (2009): "Measuring organizational performance: beyond the triple bottom line." *Business strategy and the environment* 18.3 : 177-191.

Ioannou, I., and G. Serafeim (2015). The Impact of Corporate Social Responsibility on Investment Recommendations: Analysts' Perceptions and Shifting Institutional Logics. *Strategic Management Journal*, July 2015, 36(7): 1053-1081

Ioannou, Ioannis and Serafeim, George (2017): The Consequences of Mandatory Corporate Sustainability Reporting (May 1, 2017). Harvard Business School Research Working Paper No. 11-100 .

Lopez, V. M., Garcia, A., & Rodriguez, L. (2007): "Sustainable development and corporate performance: A study based on the Dow Jones Sustainability Index", *Journal of Business Ethics*, vol. 75, no. 3, pp. 285-300.

Mahn .K (2016, April 26). “The Changing Face Of Socially Responsible Investing” Retrived from <https://www.forbes.com/sites/advisor/2016/04/26/the-changing-face-of-socially-responsible-investing/#1fd521af736a>

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of management review*, 26(1), 117-127.

Ngwakwe, C. C. (2008). Environmental Accounting and Cost Allocation: A Differential Analysis in Selected Manufacturing Firms in Nigeria. In *fifth International Conference on Environmental, Cultural, Economic and Social Sustainability, University of Technology, Mauritius*.

Nielsen N.V (2015 December 10) “Consumer Goods Brands That Demonstrate Commitment To Sustainability Outperform Those That Don’t” Retrieved from <http://www.nielsen.com/us/en/press-room/2015/consumer-goods-brands-that-demonstrate-commitment-to-sustainability-outperform.html>

Wagner, M. (2010). The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects. *Ecological Economics*, 69(7), 1553-1560.

Wagner, M. Schaltegger, S. & Wehrmeyer, W. (2001). The relationship between the environmental and economic performance of firms. *Greener Management International*, 34(2), 95-108.

BIOGRAPHY

The author Dr Sekhar Amba, Associate Professor at NYIT acknowledge the helpful comments of anonymous reviewers. My research interest includes sustainability, CSR, corporate governance, Investments, Corporate Finance and Leadership. Author may be contacted at smuni@nyit.edu