ESG (Environmental, Social, and Governance) controversy and total scores and firm performance. A case study of US firms.

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Abstract

This paper examines the impact of Environmental, Social, and Governance (ESG) controversy and total combined scores on firm performance. I use a data set of US firms for the period from 2002 to 2016. Our results show that ESG controversy scores are associated with the lower firm value measured by Tobin's Q. Furthermore, I find that the impact of ESG controversy is more on new economy firms as compared to old economy firms. Similarly, I find that balanced board structure policy help to minimize the impact of ESG controversies on firm performance.

Keywords: ESG Controversy score, Tobin's q, Cash holdings, new firms

Introduction

ESG controversy scores are firms' environmental, social, and governance-related news such as suspicious environmental, social behavior, and product-harm scandals that bring the firm under the news media and attract the investors' attention (Cai et al., 2012). Thomson Reuters calculates ESG controversy scores using 23 ESG controversy topics. During the year, if any scandal related to the environment, social behavior, and governance occurs in the company, these incidents penalize the company, affecting its overall ESG scores. This negative news raises questions and concerns regarding the company in terms of its prospects. It may increase the financial risk and impact the firm value.

Balanced board structure policy (BBP) is a dummy variable equal to one if the firm has a board diversity policy and zero otherwise. Bonn, Yoshikawa, and Phan (2004) compare the effects of board size, proportions of female directors, proportions of outside directors, and the average age of directors on firm performance in Japanese and Australian firms. Authors find that board size and age of directors were negatively associated with performance for Japanese firms.

Literature Review and Hypothesis Development

Aouadi and Marsat (2016) investigate the association between environmental, social, and governance (ESG) controversy score and firm value using a unique dataset of around 4000 firms from 58 countries from 2002 to 2011. Authors find a positive relationship between ESG controversy scores and performance. I use the ESG controversy score as a proxy for negative news related to ESG. In this article, I investigate whether negative ESG-related news impacts firm value or not. ESG controversy score. Vafeas and Theodorou (1998) examine the association between board structure (director affiliation and ownership, chairman affiliation, and committee composition) with firm performance for 250 publicly traded firms in the UK. The authors do not find any significant link between board structure and firm performance.

Khan and Vieito (2013) study US firms for the period 1992 to 2004 and find that the firm-level risk goes down with female CEOs compared to male CEOs. Bonn, Yoshikawa, and Phan (2004) compare the effects of board size, proportions of female directors, proportions of outside directors, and the average age of directors on firm performance in Japanese and Australian firms.

Authors find that board size and age of directors were negatively associated with performance for Japanese firms.

Hypothesis 1: ESG controversy scores are negatively associated with firm performance.
Hypothesis 2: ESG controversy impacts more to new economy firms as compared to the old economy.
Hypothesis 3: ESG controversies have less impact on firm performance if the firm has a balanced board structure policy.

Results Analysis and Conclusion

I collect ESG controversy and BBP data from the Thompson Reuters database and financial data from Compustat for the period from 2002 through 2016 to study the relationship between ESG controversy score and firm value. I use the following regression equation to test my hypothesis:

$$Tobin's\ Q_{i,t} = \beta_0 + \beta_1 ESGC_{i,t} + \beta_2 X_{i,t} + \text{fixed effect} + \text{year effect} + \text{industry effect} + \varepsilon \ldots\ldots\ldots\ldots.1$$

$$Tobin's\ Q_{i,t} = \beta_0 + \beta_1 ESGC_{i,t} + \beta_2 BBP_{i,t} + \beta_3 ESGC_{i,t} * new_{i,t} + \beta_4 X_{i,t} + \text{fixed effect} + \text{year effect} + \text{industry effect} + \varepsilon \ldots\ldots\ldots\ldots.2$$

$$Tobin's\ Q_{i,t} = \beta_0 + \beta_1 ESGC_{i,t} + \beta_2 BBP_{i,t} + \beta_3 ESGC_{i,t} * BBP_{i,t} + \beta_4 X_{i,t} + \text{fixed effect} + \text{year effect} + \text{industry effect} + \varepsilon \ldots\ldots\ldots\ldots.3$$

I observe that the ESG controversies are negatively associated with firm values measured by Tobin's Q. New economy firms are new, high-growth industries with technology-oriented businesses such as computers, software, communication, the internet, etc. Furthermore, I find that the ESG controversies impacted more new economy firms as compared to old economy firms.

The balanced board can handle the controversies more efficiently, and as a result, firm performance does not decrease with the ESG controversies. ESG scores are helping sustainable development and improving the earth's environment. If customers and community people become more sensitive towards the environment, emissions, human rights, etc., ESG disclosure will help firms perform better. BBP (balanced board structure policy) is a dummy variable that equals one if the firm has a balanced board structure policy; otherwise, zero.

I use an interaction term of BBP with ESGC and find that the firm performance is less impacted by the ESG controversy score if the firm practices a balanced board structure policy. Furthermore, a balanced board structure policy is vital for any firm. The firms with balanced board structure policy have less effect of controversies on firm performance. The negative impact of ESG controversies vanished in the firms where a balanced board structure policy is applied.

References

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Appendix A

Variable Descriptions

Tobin's Q	Market value of assets (market value of equity plus total liabilities) over book value of assets.
Cash	Cash is the ratio of cash plus cash equivalents to total assets ($ Millions).
Size	Log (1+market value of equity)
CAPX	Capital Expenditures to total assets.
Leverage	sum of long-term debt and current liabilities, divided by total assets, a proxy for financial distress.
R&D	Research and Development spending over total sales, a proxy for growth opportunities.
NWC	Net working capital is scaled by total assets, a proxy for liquidity demand and a substitute for cash.
Dividend	It equals one if the firm paid a dividend in that year, and zero otherwise.
ESGC	ESG Controversy score
ESGCM	Combined score of ESG and ESGC
NEW	Equals one if SIC codes are:3570, 3571, 3572, 3576, 3577, 3661, 3674, 4812, 4813, 5045, 5961, 7370, 7371, 7372, and 7373, and zero otherwise.
BBP	Equals one if the firm has a balanced board structure policy and zero otherwise.
Age	Present age of CEO in years.
Gender	CEO Gender equals one if the CEO is male, and zero otherwise.