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Corporate social responsibility and dimensions of performance: An application to U.S. electric utilities

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ABSTRACT

This paper investigates the relationships among performance dimensions associated with corporate social responsibility (CSR) focusing on the U.S. electric utility sector. Results of a statistical copula approach suggest that economic performance of utilities is compatible with environmental, social, and governance performance, The CSR model has the potential to help U.S. electric utilities become better corporate citizens.

1. Introduction

The ways in which businesses interact with society has evolved over time. This evolution is reflected in alternative normative theories of the firm. According to the Ownership Theory, shareholder interests should be prioritized by using corporate resources to increase profits (Jensen, 2001). According to the Stakeholder Theory, a firm's objective is to create value for society (Donaldson and Preston, 1995), reflected by the integration of social demands into business plans. Relative to the Ownership Theory, the Stakeholder Theory frames firm management within a wider context and requires a reformulation of the corporate objectives (Evans and Freeman, 1988). Specifically, it identifies the stakeholders, who are the individuals and groups that have an interest or concern in the firm (employees, customers, suppliers, creditors, the community, investors, regulators, policymakers, etc.), and considers them to have both the right and obligation to participate in the firm management. The main objective of the company should be the flourishing of all stakeholders (Werhane and Freeman, 1999). Some authors, such as Jensen (2001), disagree with firms having this multidimensional objective, as it may create confusion and disorder and preclude effective decision-making.

Corporate Social Responsibility (CSR) Theory is a hybrid "*whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis*" (Commission European, 2001, p. 6). The goal of CSR is to align the financial activities of the company with social objectives. While there is no universal characterization of the CSR, it is usually regarded as a four-dimensional concept. The economic dimension relates to the direct and indirect financial performance of the firm. The environmental dimension concerns the impact of business activity on natural ecosystems. The social dimension includes issues related to the quality of life for employees, customers, and future generations (Ioannou and Serafeim, 2012a) (Ioannou and Serafeim, 2012a). Finally, the corporate governance dimension deals with relationships among directors, managers, and other stakeholders.

According to CSR Theory, a firm has four main responsibilities in

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decreasing order of priority: the economic, the legal, the ethical, and the philanthropic. After meeting the top obligation, attention is turned progressively to the remaining obligations as long as they do not compromise the financial viability of the firm. The logic behind this prioritization is that if a firm goes out of business, it will be unable to meet its other obligations, including the philanthropic ones (Brusseau, 2011).

Interest in CSR has gained ground with increasing societal demands for firms to take responsibility for their social impacts and serve the general interest and not just the one of the shareholders minority (Blair, 1996; Wagner-Tsukamoto, 2006). An increasing number of firms have changed their business models to reflect CSR concepts. While these changes were initially aimed mainly at including environmental and social targets (Du et al., 2011), more recently, firms have also become interested in the way they interact with stakeholders. Further, CSR has evolved from being considered detrimental to a firm's profitability, to be regarded as a potential competitive advantage, at least in the long-run (Castelo Branco and Lima Rodriques, 2007; Porter and Kramer, 2002).

These trends in the business world have brought about fundamental changes in the way that firm performance is measured. To the extent that viewing a corporation's financial prosperity in isolation from social, environmental, and governance practices is no longer acceptable, financial indicators have become insufficient for assessing firm performance (Hansen and Wernerfelt, 1989; Porter and der Linde, 1995). The 1990s saw an expansion in corporate reporting of social information. In 1997, the U.S.-based Coalition for Environmentally Responsible Economies (CERES) and the United Nations Environmental Program (UNEP) launched the Global Reporting Initiative (GRI) to develop economic, environmental, and social reporting guidelines (Ioannou and Serafeim, 2012b). The objective was to place sustainability reporting at the same level as financial reporting.

Given the central role that CSR can play in new business models, a considerable body of literature has been devoted to examining the "why" question, that is, why do firms change their business model to become better corporate citizens (Garay and Font, 2012; Matten, 2006), and the "what" question, that is, what is CSR (Matten and Crane, 2005). The question of "how" CSR affects business performance remains the most elusive one despite a relevant number of studies in this area. While some studies conclude that a positive relationship exists between CSR and financial performance (Berman et al., 1999; Roshayani et al., 2009; Brammer and Pavelin, 2006; Carmeli et al., 2007; Saeidi et al., 2015; Waddock and Graves, 1997), other findings suggest that social commitments can lead to relatively high costs and eventually erode financial results performance (Cornell and Shapiro, 1987; Friedman, 1970; Lima Crisóstomo et al., 2011; Teoh et al., 1999).

Our analysis sheds light on this debate by studying a sample of the major U.S. electric utilities from 2005 to 2016. Although several studies have assessed the relationship between financial performance and CSR, few have examined this relationship in the context of a single industry (Peloza, 2009). Given the heterogeneity in the economic, environmental, social, and governance dimensions across different industries, aggregate studies may lead to misleading results. To our knowledge, this article is the first focusing on the role of CSR in the U.S. electric utility industry, a $377 billion industry that employs more than 500,000 workers.[1] The strategic relevance of this industry is undisputable, as electricity makes all other economic activities possible, from agriculture, to manufacturing, to telecommunications. The electric industry's economic relevance is matched by its environmental impacts, as the sector is responsible for 29% of greenhouse gas emissions in the United States (US EPA, 2017). As a result, it is relevant to assess the financial implications of electric utilities becoming better corporate citizens along the environmental dimension.

2. Literature review

According to Arrowsmith and Maund (2009), CSR is one of the major developments affecting businesses over the last decade. The influence of CSR on firm financial performance has been found to be contingent as opposed to universal (Ullmann, 1985; Wang et al., 2016) and to vary across different operational environments. Consequently, the relationship between corporate social performance (CSP) and corporate financial performance (CFP) is likely to depend on different institutional factors such as public and private regulations or the degree of market development (Campbell, 2007; Wang et al., 2016). While regulations are likely to promote adoption of CSR practices, more loosely regulated environments will encourage firms to behave more irresponsibly. Wang et al. (2016) conduct a meta-analysis that considers the influence of the operational environment on the relationship between CSP and CFP and conclude that, overall, CSR enhances financial results, being the link stronger in developed economies relative to less developed ones.

In his meta-analysis comprising 159 studies during a period of 36 years (1972–2008), Peloza (2009) investigated the relationship between CSP and CFP, concluding that 77% of the examined articles do not identify the economic sectors studied. To the extent that the institutional context influences CSP and CFP, the relationship between the two shall vary across different economic sectors (Reed, 1999). Our analysis focuses on the U.S. electric utility sector. As concern about the environmental impact of economic activities has gained momentum and given that the electric utility industry is one of the most polluting, the environmental performance of electric utilities has become a highly relevant research area (Masters, 2013). In contrast, other CSR dimensions have received almost no attention.

Sueyoshi and Goto (2009) investigated the impact of environmental expenditures and investments on the CFP of the U.S. electric utility industry. Environmental expenditure is measured by the environmental protection cost, environmental investment is measured by the total amount of investment for environmental protection facilities, and CFP is measured by return on assets. Using firm-level data and regression analysis for a sample of 167 utilities observed from 1989 to 2001 the authors find that environmental expenditures under the U.S. Clean Air Act have had a negative impact on CFP. In contrast, environmental investments have had no significant impact.

Gollop and Roberts (1983) investigated the effect of sulfur dioxide emission restrictions on the rate of productivity growth of the U.S. electric power industry during the period 1973 to 1979. Based on a cost function, their results suggest a negative relationship, as regulations generate higher costs and reduce the rate of productivity growth. Filbeck and Gorman (2004) analyzed the link between environmental and financial performance of 24 firms from the IRRC/S&P 500 electric company industry from 1996 to 1998. Environmental performance is based on five indices prepared from a raw dataset: hazardous waste clean-up, permit restriction, toxic chemicals, reported spills, and a compliance index. Using regression models, their results suggest a negative relationship.

Moving beyond the environmental dimension of CSR, Zhou and Wei (2016) assess the influence of the Chinese Renewable Energy Law on the relationship between the different CSP dimensions and CFP in the Chinese energy sector. Using a panel data of 26 renewable energy companies observed during 13 years (2001–2013),

[1] http://www.eei.org/resourcesandmedia/industrydataanalysis/industrydata/Pages/default.aspx. accessed April 15, 2016.

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