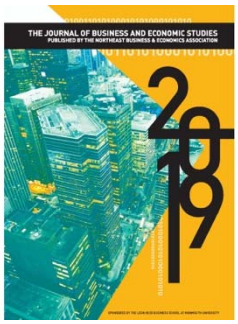

Comparison of CSR Reporting Using the GRI Framework for Small and Large Companies

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Abstract

Companies are increasingly expected to be responsible and responsive to social and environmental concerns. Firms have responded by using corporate social responsibility (CSR) reports to communicate activities to reduce negative environmental and social impacts, while improving transparency of governance and economic practices. In this study, investigators use Global Reporting Initiative application levels to determine if small firms disclose economic, environmental and social impacts differently than large companies. Relationships between application levels and organizational characteristics were also examined. Results indicate that there is a significant difference in CSR reporting between firms of disparate sizes, as well as across some organizational characteristics.

Keywords: corporate social responsibility (csr), global reporting initiative, small and medium-sized enterprises (smes)

Introduction

Over the past two decades, sustainability and its measurement have become an increasingly unavoidable focus for corporations. Consumers' immediate access to information anywhere in the world and the adoption of social media has meant that firms are expected to be responsible and responsive to social and environmental concerns, such as pollution and fair labor practices. One way that corporations have responded to this expectation is by making use of corporate social responsibility (CSR) reports to communicate with various stakeholders. CSR reports allow firms to provide details on activities that are intended to reduce corporations' negative environmental and social impacts on communities, while improving transparency. Rather than develop their own metrics for sustainability goals, many firms will use a CSR reporting framework. CSR reporting frameworks allow organizations to disclose the economic, environmental and social impacts caused by routine operations in a structured and comprehensive manner.

While there are several CSR reporting frameworks available, the most widely adopted one is the Global Reporting Initiative (GRI) (Isaksson & Steimle, 2009). Adopting the GRI may lead to positive secondary and tertiary impacts on an organization, beyond providing firms with a consistent means of measuring performance, and stipulating a method by which stakeholders may compare performance amongst various firms (Vigneau, Humphreys, & Moon, 2015). Current research into reporting activity has largely been focused on whether or not a firm reported, with no differentiation on the level of reporting. Yet, researchers have found a great deal of variability in mandatory disclosure standards and frequency among firms of similar sizes, as well as between large and small firms (Holder-Webb, Cohen, Nath, & Wood, 2008; Holder-Webb, Cohen, Nath, & Wood, 2009). As a result, this study's investigation has been guided by the following question:

Do small firms disclose societal impacts differently than large companies, and if so, is there a relationship between the amount of disclosure and organizational characteristics?

In this study, researchers use GRI application levels to determine if small firms are disclosing the economic, environmental and social impacts caused by operations differently than their large company counterparts. The study also scrutinizes the relationships between GRI application levels and a number of organizational characteristics. While large firms have more resources available (Brammer & Millington, 2006) and greater resource-slack (Udayasankar, 2008), which may lead to the implementation of ancillary activities such as CSR reporting (Gallo & Christensen, 2011), small companies are also responding to customers' expectations for responsibility and transparency. Yet, the cost of reporting can be viewed as burdensome by firms of all sizes (e.g. Nidumolu, Prahalad, & Rangaswami, 2009; Margolis & Walsh, 2003). For this reason, as well as concerns about unnecessary disclosure of internal practices, some firms elect to abstain from filing CSR reports, even though they may be committing resources to CSR activities. However, corporations have a responsibility to report on their CSR activity to internal and external stakeholders to demonstrate that they are meeting the dual challenge of being good corporate citizens, and growing shareholder value through increased sales and market presence.

This study helps to contribute to a growing scholarly interest in research that lies at the nexus of sustainability and business, and is premised on prior research revealing a link between greater CSR reporting and an increased motivation for firms to engage in sustainability activities (Sarkar, Datta, Mukherjee & Hannigan, 2015). An understanding of CSR reporting has grown in the past several years, yet relative to their importance, there exists a dearth of literature examining reporting comparing firm characteristics. As a result, this paper's primary contribution is to offer a more in-depth portrayal of the size and organizational characteristics of firms that are engaging in CSR disclosure, and their level of commitment to reporting.

This research uses GRI's "Application Levels" system as a basis of comparison. Companies using GRI guidelines declare the level at which recommendations are being adopted – and are assigned an application level rating of A, B, or C, whereby an application level rating of "A" signifies the greatest amount of GRI disclosure that can be addressed in a CSR report, and a level rating of "C" the minimum.

Many firms are engaging in CSR of some form and are reporting on their activities. By examining the relationships between firm characteristics and application level, this study will delineate the types of firms that are engaging in CSR disclosure according to a standardized reporting framework, and their level of commitment to reporting. Companies are motivated to work toward achieving both environmental and financial objectives. An improved understanding of firms that report at higher levels and their internal organizational configurations may encourage additional reporting by other firms, and may offer insight into what benefits may be obtained from reporting.

The remainder of this paper proceeds as follows. The next section reviews the related literature on firm size, organizational characteristics, and CSR reporting, and develops a theoretical framework for our propositions. We then describe the sampling procedure utilized in this study, and the analytical techniques performed. We then follow with an evaluation and interpretation of our outcomes with respect to the original hypotheses. In the subsequent section, we further explain these results and describe the main contributions and implications of our analyses. Finally, we discuss the confines of this study, and offers suggestion for future analysis.

Literature Review

The literature is replete with research on the effectiveness or lack thereof of mandatory reporting (e.g Gray, 2013), while voluntary reporting also receives extensive review. Many organizations have attempted to standardize voluntary reporting, with a variety of frameworks or guidelines being offered, such as: Organization for Economic Co-operation and Development (OECD), United Nations Global Compact (UNGC), and Carbon Disclosure Project (CDP). Almost 75% of global firms engage in CSR reporting (KPMG, 2015). The Wall Street Journal reported that companies in the S&P 500 index are touting their efforts to curtail greenhouse-gas emissions

and improve their performance on other nonfinancial fronts (Chasan, 2014). According to an article in Harvard Business Review, by "treating sustainability as a goal today, early movers will develop competencies that rivals will be hard-pressed to match" (Nidumolu, et. al., 2009: p. 3). Various research studies have focused on the results of engaging in voluntary CSR reporting, with some of the expected benefits being customer loyalty, enhanced reputation, increased sales, and competitive advantage. Even so, some firms are still hesitant to report on CSR because it may require a firm to disclose sensitive information, add costs, and divert resources from activities that increase shareholder value (Margolis & Walsh, 2003). As Nidumolu, Prahalad and Rangaswami (2009) noted, "… many companies are convinced that the more environment-friendly they become, the more the effort will erode their competitiveness. They believe it will add to costs and will not deliver immediate financial benefits" (p. 1). Nevertheless, research has demonstrated a positive relationship between CSR and an organization's financial performance (e.g. Shen & Chang, 2009). All CSR reporting seems to share the challenge of communicating to external and internal stakeholders that (1) sustainability initiatives are being implemented; and (2) it is in the long-term interest of the corporation and its stakeholders to continue to engage in these activities.

Firm Size and CSR Reporting

While both large and small firms have been found to be similarly motivated to participate in CSR (Udayasankar, 2008), results from many of the studies examining the relationship between firm characteristics and reporting have been inconclusive. Some researchers have found a link between firm size and disclosure practices. For example, in an examination of nearly 450 large UK firms drawn from a variety of industrial sectors, Brammer and Pavelin (2008) found higher quality environmental disclosure among larger firms. However, some of this research may have identified a relationship due to inconsistent approaches to classifying and measuring reporting activity (Jooh, Pati, & Roh, 2011; Fernandez-Feijoo, Romero, & Ruiz, 2014). For instance, Galani, Gravas, and Stavropoulos (2012) found a significant relationship between reporting and company size. However, Dragu and Tiron-Tudor (2012) found little influence on reporting by organization size. These researchers used the Deloitte Sustainability Scorecard (Deloitte, 2014) for measuring reporting practice in their study. The Deloitte Sustainability Scorecard is intended to provide guidelines on what should be included in sustainability reports published by corporations. Other researchers have used the GRI framework as part of their examination into the relationship between firm size and disclosure. Schreck and Raithel (2018) analyzed sustainability reports of 280 publicly traded companies based on a content analysis index created using the GRI guidelines and coded sustainability reports. In their study, they found that sustainability reporting grows slower as firm size increases. Others suggest that larger firms may engage in greater reporting than their small firm counterparts because it constitutes an insignificant portion of total business costs, whereas it is a considerable expense for small firms (Baumann-Pauly, Wickert, Spence, & Scherer, 2013; Wickert, Scherer, & Spence, 2016). Therefore, for this study, which utilizes the GRI framework application levels as a basis of comparison, we propose the following hypothesis:

H_1: Large firms adopt the GRI framework at a significantly higher level than smaller firms.

Organizational Characteristics and CSR Reporting

Hambrick (1983) observed that "A strategy may be considered a pattern in a stream of decisions (past or intended) that (a) guides the organization's ongoing alignment with its environment and (b) shapes internal policies and procedures" (p. 5). CSR reporting involves the disclosure of the economic, environmental and social impacts caused by organizations' routine operations. Consequently, CSR reporting may be indicative of an organization's management decision-making priorities and resource focus. As a result, we make use of the theoretical business strategy framework of Miles and Snow (1978), which suggested that firms could be characterized according to four strategic types: Defenders, Prospectors, Analyzers, and Reactors. Strategic types represent a firm's market strategy that is crafted in response to the dynamism of market environment in which it competes, and the organizational configuration of the firm's internal technology, structure, and processes associated with that strategy.

On one end of the environmental dynamism spectrum are Defenders, which narrowly focus on stable, well-defined products or markets. Their advantage may stem from efficient asset utilization. Prospectors are on the other end of the continuum and are described as change leaders that are continually searching for new market prospects. As a result, these types of organizations invest heavily on R&D and could be inefficient in their pursuit of new opportunities. Analyzers operate in both the turbulent environments that are the domain of Prospectors, as well as the stable markets that are preferred by Defenders. When operating in unstable markets, Analyzers follow their more innovative competitors, where the risk can be assessed and limited. When competing in stable markets, they implement structures and processes that improve efficiency. Reactors are firms that perceive opportunities and emerging trends as a result of changing environments, but may not have the resources to respond quickly enough to be a market leader. As a result, Reactors are market followers with respect to product offerings and strategy. Hambrick (1983) compared and validated functional attributes for these strategic types and reported differences among several variables, including fixed assets, productivity, capital intensity and R&D expenses, for firms that fitted each type.

Defender actions with regard to CSR reporting may be explained through the use of legitimacy theory. Legitimacy theory proposes that firms should always try to operate within the norms of their respective businesses, in order to continue to have the power to be in business that is granted by society (Deegan & Unerman, 2006). Suchman (1995) defined legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (p. 574). Legitimacy strengthens organizational survival (Hannan & Carroll, 1992; Meyer & Rowan, 1977) and is a principal factor of organizational success (Deephouse & Suchman, 2008). Organizational legitimacy concerns meeting an acceptable threshold of social conformity internally (Deephouse & Suchman, 2008), while demonstrating indications of such conformity externally.

Since Defenders operate in stable markets, this theory supports the position that firms should engage in CSR as a social signal that demonstrates accountability externally to society and

be allowed to continue to be in business (Deegan, 2002; de Villiers & van Staden, 2006; Simnett, Vanstraelen, & Chua, 2009; Suchman, 1995). The non-rivalrous nature of legitimacy confers important benefits in stable markets in that it offers the opportunity for win-win situations of mutual affirmation among industry actors (Meyer & Rowan, 1977). Stable markets also favor standardized responses to legitimacy that follow along previously established industry patterns (Deephouse & Suchman, 2008). Fixed assets, which is a measure of the firm's investment in tangible assets such as plants and equipment. Capital intensity measures how a firm puts its assets to use to generate income. According to Miles and Snow (1978), Defenders are more likely to be highly efficient, operate with high fixed assets and in a capital-intensive manner. Therefore, we propose the following:

H_2: There is a significant positive relationship between capital intensity and application level reported.

H_3: There is a significant positive relationship between fixed asset value and application level reported.

As Prospector firms operate in turbulent environments and have to invest in the development of new opportunities, we suggest that these types of firms will put less emphasis on corporate disclosure strategies, including corporate social reporting. R&D expenses is a measure of a firm's resources committed to development. Selected previous research has maintained that more innovative firms accrue greater benefits from socially responsible practices (Luo & Bhattacharya, 2006). Others argue that firms engaged in a search for new opportunities would become more sensitive to stakeholder demands, which would in turn, lead to a greater breadth of socially responsible actions (Brower & Mahajan, 2013). Additional researchers have also stressed the association between CSR practices and innovation strategies (Bansal, 2005; Husted & Allen, 2007), which would argue for a link between greater R&D expenditures and CSR disclosure. However, other research offers seemingly contradictory findings. Gallego-Alvarez, Prado-Lorenzo, and Garcıa-Sanchez (2011) found that the greater investments made in R&D, the fewer the sustainable practices found in companies. They also reveal that R&D investments take three years to demonstrate value in CSR practices. Similarly, Branco and Rodrigues (2006) note that while investments in socially responsible activities may help a firm to develop innovative offerings to better meet the needs of stakeholders, a time lag exists between investments in such activities and their respective pay-offs.

Moreover, Burke and Logsdon (1996) offered a framework that helps to identify the extent to which CSR leads to innovation. They contend that in addition to distinctive capabilities, innovation through CSR requires a positive alignment of five strategic dimensions listed in Table 1. They propose that all five dimensions must be aligned in order to create a strategic profile that leads to the creation of innovation and a resulting competitive advantage.

Table 1

How Strategy is Linked to CSR

Centrality	Closeness of fit to the company's mission and objectives
Specificity	Ability to capture private benefits by the company
Proactivity	Degree to which the program is planned in anticipation of emerging social trends and in the absence of crisis
Voluntarism	The scope for discretionary decision-making and the lack of externally imposed compliance requirements
Visibility	Observable, recognizable credit by internal and/or external stakeholders for the company

Source: Burke & Logsdon (1996)

In contrast, firms adopting less than ideal practices, or even those that merely implement best CSR practices could hinder the firm's ability to innovate, such that pursuing CSR may create barriers to innovation (Bocquet, Le Bas, Mothe, & Poussing, 2013). We propose that Prospectors are likely to have misaligned strategic profiles. As Prospector firms operate in turbulent environments and have to invest in the development of new opportunities, we suggest that these types of firms will put less emphasis on corporate social disclosure. Fast moving markets require flexibility particularly in how a firm pursues its objectives. Such turbulence may also hamper a company's efforts to anticipate social trends, and as a result, similarly thwart efforts to make decisions regarding compliance decisions. Those firms that do pursue CSR practices that lead to an enhancement in internal capabilities and ultimately, new products, would take years to come to fruition, thus prolonging the time by when a firm may benefit from such investments and garner credit for disclosure.

As a result, we offer that firms that invest heavily on R&D because they operate within fast changing markets, where norms may not yet have been established, may engage in less CSR to demonstrate accountability to society. Therefore, we propose:

H_4: There is a significant inverse relationship between R&D expenses and application level reported.

Stakeholder theory describes the associations between company management and external parties, including customers, employees, suppliers, distributors, policymakers, investors, and the community-at-large (Friedman & Miles, 2006). Stakeholders are described as "any group or individual who can affect or is affected by the achievement of the organization objectives" (Freeman, 1984, p. 46). One group of stakeholders that is critical to the firm's success are its employees. Results of studies that examine how employees react to CSR suggest that it could be a competitive tool (Azim, 2016) as the firm's reputation improves and it is able to attract and retain better employees. Others have noted that stakeholders, including employees, receive personal benefits when companies engage in socially-responsible behavior, and the degree to which such benefits are perceived determines responses to such behavior (Bhattacharya, Korschun, & Sen, 2009; Bhattacharya, Sen, & Korschun, 2008). Other studies point to evidence that CSR can contribute to positive employee attitudes (Glavas & Kelly, 2014); and job satisfaction (De Roeck, Marique, Stinglhamber, & Swaen, 2014). Yet, another study found no association between problematic employee relations and the extent to which organizations engage in corporate philanthropy, which can be viewed as a measure of corporate social responsibility (Chen, Patten, & Roberts, 2008). Employees are an important resource for the firm and success towards sustainability goals is dependent on a workforce that is engaged and committed to CSR. Therefore, we propose:

H_5: There is a significant positive relationship between employee productivity and application level reported.

DATA AND METHOD

Data was collected from the GRI database, and from firms' annual reports. GRI is a global non-profit founded in 1997, with the objective of standardizing CSR reporting. Organizational characteristics used in this study, which were derived from the strategic typologies defined by Miles and Snow (1978), are R&D expenditure, capital intensity, employee productivity and fixed assets. Values for number of employees, current assets, current liabilities, R&D expenses, total assets, and fixed assets were obtained from 2012 annual reports for the firms included in the study, which are available on firms' websites. In this study, capital intensity is determined from the ratio of total assets to net sales for firms in the dataset. Employee productivity is determined by the ratio of net sales to number of employees. All currencies were converted to US dollars at the exchange rate on December 31, 2012 (www.xe.com). The group of corporations that filed usable CSR reports with GRI in 2012 was used as a starting point.

The data was further filtered to include only the 750 firms that reported their number of employees, which was used as a differentiator for company size. The distribution of workforce size was divided into deciles and the top and bottom deciles were used in the study, resulting in a sample size of 105 firms. The top decile had a mean 170,118 employees, while the bottom decile had a mean 474 employees. For purposes of conducting research, the Small Business Administration defines a small business as an independent business having fewer than 500

employees (SBA). While industry membership may be a significant differentiator for the relationships being examined, this was not explored in this paper as the sample sizes for each industrial sector would have been too small to provide reliable results from the analysis. For example, there were 16 firms in the real estate sector, representing the highest frequency, and several sectors were represented by fewer than 5 firms.

Analysis of variance and chi-square tests were conducted to evaluate if small firms and large firms differ in the level at which they adopt the GRI framework. This analysis was used to address hypothesis H_1. Multivariate analysis of variance (MANOVA) was used to determine if capital intensity, fixed assets, R&D expenses, and employee productivity have a significant relationship with a firm's GRI application level. MANOVA was chosen to allow for the examination of several dependent variables simultaneously, while controlling overall error rate. Where there is an indication of a significant relationship from the MANOVA, univariate analyses are conducted to determine the significance of individual variable contributions. These techniques were used to analyze hypotheses H2 – H5. All analyses were performed using SAS Institute's JMP Pro 14 statistical software.

Results

Table 2 presents the distribution of firms that provided GRI reports at each application level for each company type.

Table 2

Distribution of Firms' Application Levels by Company Size

Company Size	Application Level A	Application Level B	Application Level C
Large	13	23	7
Small	14	20	28

Table 3 provides descriptive statistics and Table 4 provides correlations for the variables being examined in this study: fixed assets (USD, mil.), R&D costs (USD, mil.), capital intensity (mil. / employee), and employee productivity (mil. /employee).

Table 3

Descriptive Statistics of Model Variables

Variable	Application Level	*n*	μ	*S.D.*
Fixed assets	A	36	10450.61	1711.81
	B	40	10129.85	2082.03
	C	29	1802.09	612.74
R&D costs	A	36	2071.64	342.48
	B	40	1681.78	286.76
	C	29	699.42	319.12
Capital intensity	A	36	10.714	3.660
	B	40	12.922	4.104
	C	29	15.049	5.276
Employee productivity	A	36	0.686	0.1678
	B	40	1.090	0.2642
	C	29	0.858	0.2054

Table 4

Correlations of Model Variables

Variable	1	2	3	4	μ	*S.D.*
1. Fixed assets	—				7858.833	1037.2093
2. R&D costs	0.6193	—			1523.2026	185.2093
3. Capital intensity	-0.0783	-0.0820	—		15.1855	3.6912
4. Employee productivity	-0.1038	-0.1101	-0.0167	—	0.7641	0.1037

A chi-square test of goodness-of-fit was performed to determine whether the three application levels were equally preferred by firms of different sizes. Application level was not equally distributed across firm size, χ^2 (2, N=105) = 20.94, p < 0.0001. In order to compare the extreme application levels of A and C, a chi-square test was performed for these groups for each company type. Results indicate that large companies filed reports at level A significantly more frequently than small companies, χ^2 (1, N=62) = 17.41, p < 0.0001, odds ratio = 9.14. Therefore, hypothesis H_1 was supported.

Table 5

MANOVA Results

Test Statistic	Value	*f* Value	*df*	*p*-value
Wilks' Lambda	0.8163	2.5364	8	0.0120
Pillai's Trace	0.1878	2.4870	8	0.0137
Hotelling-Lawley	0.2199	2.5958	8	0.0114
Roy's Max Root	0.1939	4.6542	4	0.0018

Table 5 above shows the four multivariate test statistics MANOVA calculates. Results of our MANOVA appeared to support the remaining hypotheses that the four model variables have a significant relationship with GRI application level. Of the four criteria used to assess multivariate differences across groups, the Roy's Max Root = 0.1939, F (4, 99) = 4.6542, p<0.005, was the most significant. Yet, the Roy's Max Root multivariate tests provided the lowest level of power for the sample relative to the other multivariate tests. A larger sample of firms may provide multivariate test results with higher power. Given the significance of the overall MANOVA, the univariate main effects were examined.

Table 6

Univariate Results

Variable	*f* Value	*df*	r^2	*p*-value
Fixed assets	7.1635	2	0.1232	**0.0012**
R&D costs	4.4326	2	0.0814	**0.0143**
Capital intensity	0.2383	2	0.0046	0.7884
Employee productivity	0.9009	2	0.0170	0.4094
Fixed Assets * R&D Costs	3.9666	2	0.0749	**0.0221**

Results of individual one-way ANOVA tests are provided in Table 6 above. There were two significant main effects; fixed assets and R&D costs. The main effect for fixed assets was $F(2,103) = 7.1635$, $p < 0.005$; such that firms with higher fixed asset values were more likely to report at level A ($\mu = 10450$, *S.D.* = 1711), than at level C ($\mu = 1802$, *S.D.* = 612). Post-hoc comparisons using the Tukey HSD test indicated that the mean value for fixed assets for firms reporting at A ($\mu = 10450$, *S.D.* = 1711) was significantly different than for firms reporting at C ($\mu = 1802$, *S.D.* = 612); and for firms reporting at B ($\mu = 10129$, *S.D.* = 2082); and C ($\mu = 1802$, *S.D.* = 612) at the 0.05 level. However, the fixed asset value did not differ significantly for firms reporting at GRI levels A and B. Even so, hypothesis H_3 was supported.

Main effect for R&D costs was $F(2,103) = 4.4326$, $p < 0.05$; such that firms with higher R&D costs were more likely to report at level A ($\mu = 2071$, *S.D.* = 342), than at level C ($\mu = 699$, *S.D.* = 319). Post-hoc Tukey's HSD tests showed significant differences in R&D costs for firms reporting at A and C at the 0.05 level. Although our results revealed significant differences for firms reporting at levels A and C, H_4 was not supported as we hypothesized an inverse relationship. Other differences were not significant.

The main effect of capital intensity was nonsignificant, $F(2,103) = 0.2383$, $p > 0.5$, as was that of employee productivity, $F(2,103) = 0.9009$, $p > 0.25$. Therefore, H_2 and H_5 were not supported.

An ANOVA test to evaluate interaction effects indicated a significant interaction between fixed assets and R&D costs, $F(2,103) = 3.9666$, $p < 0.025$. Post-hoc Tukey HSD test showed significant differences in the interaction effect for firms reporting at GRI levels A and C at the 0.05 level. Table 7 below summarizes our study's investigative question and support / non-support of associated hypotheses.

Table 7

Investigative Question and Associated Hypotheses

Q: *Do small firms disclose societal impacts differently than large companies, and if so, is there a relationship between the amount of disclosure and organizational characteristics?*	
H_1: Large firms adopt the GRI framework at a significantly higher level than smaller firms.	**Supported**
H_2: There is a significant positive relationship between capital intensity and application level reported.	*Not Supported*
H_3: There is a significant positive relationship between fixed asset value and application level reported.	**Supported** *For firms reporting at application levels: A vs. C, and B vs. C*
H_4: There is a significant inverse relationship between R&D expenses and application level reported.	*Not Supported*
H_5: There is a significant positive relationship between employee productivity and application level reported.	*Not Supported*

Discussion and Implications

Chi square test results for company size and application level indicate that there is a significant difference in the proportion of large companies that are reporting at level A compared to the proportion of small companies using the same level. A large firm is more likely to file a CSR report using the GRI framework at a higher level than a small company. Larger firms have the resources and influence whereby initiatives such as CSR and sustainability may gain support and prominence from stakeholders.

Significant differences in application levels using other firm characteristics were also observed. Four firm characteristics were examined: R&D expenditure, fixed assets, capital intensity, and employee productivity. Significant differences in application level were found for the fixed assets measure. The fact that capital intensity and employee productivity were not significantly associated with GRI level is encouraging to firms that cannot tie-up resources for the long-term. Sizable investments in fixed assets does not appear to be a necessary factor in adhering to the GRI framework at a high level. Yet, more analysis is required, particularly as it pertains to Prospector firms who we proposed would spend less on CSR because they operate in fast-moving

markets where norms for disclosure may not yet have been established. Unlike Defender firms who pursue a strategy that narrowly focuses on stable, well-defined products or markets, Prospector firms adhere to a strategy that requires the search for new market prospects and thus are more likely to invest a great deal on R&D. Troubling issues call for additional scrutiny. Maniora (2018) suggests that Prospector firms are more likely to deliberately mislead when reporting sustainability issues than Defenders. Specifically, Maniora (2018) contends that Prospector firms may be intentionally misidentifying sustainability issues in terms of materiality, such that firms achieve higher performance levels on immaterial sustainability issues than on material ones. Clearly, this behavior does not meet the condition of impartiality that is expected by disclosure guidelines. Thus, while we postulated that there would be a significant inverse relationship between R&D expenses and CSR disclosure levels (H_4), it may be that these types of firms are misclassifying issues in order to garner the benefits of disclosing at higher levels. As Maniora (2018) suggests, a way to determine if this is indeed occurring is to carefully review the materiality determination process of each company filing disclosure reports. A more proactive and virtuous practice for companies to employ are legitimation strategies that argue for greater transparency in cases of adverse disclosure, and which may help to moderate public criticism subsequent to release of such information and bolster corporate legitimacy (Hahn & Lülfs, 2014).

In addition, we must be cautious in interpreting these results to mean that firms that disclose at higher levels have a greater commitment to CSR. Motivations for greater disclosure may be dubious, which may be particularly true of large companies that have more of an incentive to circumvent the deleterious effects associated with poorly handled CSR activities. Wickert, Scherer and Spence (2016) observed a "large firm implementation gap", whereby big companies actively communicate their CSR activities but underemphasize the enactment of meaningful changes to internal procedures to enable corporate responsibility (pg. 1169). These actors pursue what Voegtlin and Pless (2014) referred to as an *economic perspective*, in that they view their primary objective as making profits, while corporate disclosures initiatives are left to prevent market failures of social responsibility. Such organizational behavior is supported by the work of Deephouse and Suchman (2008), who note that firms create "social perceptions of conformity" by introducing as few substantive changes as possible, while ensuring that benefits do not exceed the costs of implementation (p. 60), as well as a study by Brønn and Vidaver-Cohen (2009) which found that organizations were motivated to "Improve Image" and "Be Recognized for Moral Leadership" as the most compelling reasons for involvement in socially-responsible initiatives, while "Solve Social Problems Better" was at the bottom of the list (p. 99).

It may also be the case that firms are simply disclosing at higher levels to demonstrate conformity to societal norms, which has been shown to have a positive influence on legitimacy in the media, who in turn, can sway perceptions in the general public (Deephouse, 1996). In addition, as Arvidsson (2010) has noted in a study of investor relation managers at 30 of the largest firms listed on the Stockholm Stock Exchange, "companies engage in CSR activities to avoid negative impacts instead of being driven by a will to make a social betterment or acting in accordance with what is fundamentally believed to be right to do" (p. 339). In this way, the largest companies may exhibit what Suchman (1995) termed *pragmatic legitimacy*, something to be manipulated to achieve their own interests and those of their immediate constituencies, rather than *moral*

legitimacy, which adheres to a socially constructed value system. Even so, while the results did not support all hypotheses, they do indicate that differences in strategy, and accessible resources could encourage adopting the GRI framework at different levels.

As noted earlier, increased CSR reporting has been cited as one of the motivators for firms to engage in sustainability activities (Sarkar et al., 2015). Therefore, reporting at higher levels may help support resource allocation for responsible initiatives. If large firms are reporting at higher levels and enjoying better performance outcomes, this could encourage small firms to adopt CSR reporting. Additionally, an expansion in our understanding of which firms are likely to engage in CSR reporting, and what the outcomes may be, could support the adoption of reporting by firms in the same business sector or with similar characteristics.

Limitations and Future Work

This study is exploratory in nature and has several limitations. Firstly, GRI application level was used as a proxy for CSR. There are firms that are engaging in responsible CSR activity that are not using this framework. Future work could address this by conducting studies on firms that are using other reporting frameworks to assess if conclusions are similar and could be generalized. Moreover, CSR reporting is a long-term commitment. As a result, future research may benefit from a longitudinal approach. Sustainability and CSR reporting are evolving areas of business focus and examining the progress over time may be indicative of changing management priority and resource focus.

Additionally, differences in CSR norms for firms in varied industry sectors may also impact reporting. Certain business sectors appear to be aligned with a specific CSR reporting emphasis. It is likely that the type of focus a sector adopts in its reporting is a response to the external pressures it receives from its customer base. For example, a study of 1047 companies in 11 countries and 38 industries found that transparency of CSR reports is affected by the stakeholder pressure in an industry (Fernandez-Feijoo et al., 2014). CSR reporting serves as a signaling tool for the firm to differentiate itself from its competitors and communicate its cultural values to its external stakeholders. The business sector as a whole may informally adopt a reporting focus to address the consumers' concerns. In addition, firms from environmentally sensitive industries disclose differently than companies from non-environmentally sensitive industries, likely due to the perception that environmentally sensitive companies are more environmentally damaging (Galani, Gravas, & Stavropoulos, 2012). Therefore, future research could explore these differences.

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