2018

University Mission Statements and Sustainability Performance.

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ABSTRACT

This paper examines the relationship between university mission statements and sustainability practices by institutions of higher education. We examine mission statement constructs and the degree to which higher educational institutions meet specific sustainability criteria in line with the College Sustainability Report Card. Our sample consists of 347 universities from the Sustainable Endowment Institute's (2011) Green Report Card. Previous research suggests that mission statements are essential for superior organizational performance outcomes. We examine the relationship between university mission statement content and sustainability practices. Findings indicate that the greater the number of specific terms used in the university mission statements, the higher the statistical likelihood that those universities had higher sustainability ratings. Findings also indicate that private institutions and nonreligious-affiliated institutions are more likely to include sustainability

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constructs in their mission statements than colleges and universities with religious affiliation and public institutions. Several propositions to guide future research are discussed.

INTRODUCTION

Mission statements are often heavily regarded as the critical starting point for almost every major strategic initiative (Bart et al., 2001). They provide the most fundamental information for every organization: they define the business, state the company's purpose, identify the organization's product/service, identify the customer, and distinguish the organization from its competition. Mission statements have often been described as a critical component of the strategy formulation process, and research indicates that those organizations that engage in strategic planning consistently outperform those organizations that do not (Dess and Davis, 1984; Fredrickson and Mitchell, 1984; Robinson, Jr. and Pearce II, 1983).

The mission statement often serves two purposes: (1) to provide a simple statement of purpose as originally described by Drucker (1973) and (2) to provide a more publicized mission that serves as a portrayal of the organization. In the most basic sense, the mission statement provides a sense of direction and purpose for those within the company. Internally, it helps guide decision making and behavior. Externally, it creates a publicized image of the organization and communicates the organization's intentions and overall identity to stakeholders (Leuthesser and Kohli, 1997). Therefore, one of the most critical aspects of the mission statement and the strategy formulation process is the expectation that the two complement each other.

In the same way that mission statements provide purpose and strategic direction for a company in addition to providing a public image, mission statements for colleges and universities are expected to have a fundamental basis that states the university's envisioned future, along with the inspiration and motivation of the vision (Velazquez et al., 2006). According to the Higher Learning Commission and the Association to Advance College Schools of Business (AACSB), mission statements for colleges and universities

often serve two purposes: (1) to provide the foundation upon which the objectives and strategic plans will be built (Pearce and Robinson, 1991) and (2) to unify the organization behind a core purpose and direction to influence decision making (Ireland and Hirc, 1992). As such, "mission statements tend to answer three key questions: who, what, and why" (Velazquez et al., 2006, p. 813)? Therefore, "the mission statements should lay a foundation for future actions and philosophies that underlie those actions" (Velazquez et al., 2006, p. 813), in much the same way as corporate mission statements.

University Mission Statements

Regional and specialized accreditation associations have required colleges and universities to have mission statements that establish and publicly communicate the institution's commitments. More importantly, associations such as the Higher Learning Commission, the Association to Advance Collegiate Schools of Business (AACSB), the Association for the Advancement of Sustainability in Higher Education (AASHE), the Association of MBAs (AMBA), and the European Foundation for Management Development's (EFMD) Quality Improvement System (EQUIS) are requiring colleges and universities to demonstrate the achievement of its mission. For example, the AACSB requires that the "accreditation review focuses on a member's clear determination of its mission" and, therefore, "each institution must achieve and demonstrate an acceptable level of performance consistent with its mission."

Yet, universities are a very different beast from corporations. While corporations often have the primary goal of profit maximization, universities, while still institutions, are typically not-for profit, and have to contend with a much broader mandate than corporations. This contention also involves a much broader range of stakeholders than the profit-maximizing organization.

Research examining mission statements within the context of colleges and universities has been sparse. Davis, Ruhe, Lee, and Rajadhyaksha (2007) examined the ethical aspects and impacts of mission statements on the character and ethical orientation of its students. Their findings suggest that schools that explicitly state ethical content in their mission statements are more likely to

influence student ethical orientation than those schools that do not. Yet, another exploratory investigation qualitatively analyzing the mission statements of 39 Australian universities found that these institutions' espoused commitment to sustainability was not reflected in its mission statements (Lee et al., 2013). We aim to examine the contents of college and university mission statements to empirically determine the degree to which sustainability constructs are present. That is, do organizations "talk the talk" as well as "walk the walk" (Davis et al., 2007)?

We examine the mission statements of colleges and universities with regard to their focus on sustainability and whether they reinforce their mission through their sustainability practices. Critics may argue that limiting an investigation to higher education is too narrow and lacks applicability to other industries. In fact, we assert that sustainability initiatives within higher education can serve as "laboratories" for other sectors. Research can inform change strategies (Hart et al., 2016). Moreover, sustainability has been described as one of the many important roles in the twenty-first century (Hart et al., 2016). Hoover and Harder (2015), note, "There is widespread recognition that higher education institutions have an important role to play in the transition toward a more sustainable global society" (p. 175). According to Deus, Battistelle, and Silva (2016) in their research on mission statements in Brazilian universities, the authors recommend that "Higher education managers should review the universities mission statements in terms of a sustainability overview and improve the statements" (p. 403).

Sustainability

A commonly known definition of sustainability was established by the Brundtland Commission of the United Nations, which referred to sustainability as sustainable development and defined it as "… development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). This definition has been called the "cradle to grave" approach to sustainability (Butler et al., 2011). Unfortunately, there is no agreed upon definition of sustainability or sustainable development (Jabareen, 2008). However, the fact that there is no consensus definition to date may not be problematic

(Montiel and Delgado-Ceballos, 2014), given that the basic elements of sustainability consist of the three-legged stool: economic, environmental, and social responsibility (Figge et al., 2002).

Sustainability on College and University Campuses

Epistemological and political philosophies are often found in university mission statements as a way to legitimate it throughout their institutions. The ultimate goal of university members who advocate sustainability is amending, or creating, the university mission statement to include sustainability as one of the core values of their university (Velazquez et al., 2006, p. 813).

Yet, "what does it mean to be a sustainable university?" (de Lange, 2013, p. 106). Furthermore, in what ways do the mission statements of institutions of higher learning reflect the commitment to sustainability? These questions are paramount considering sustainability on college and university campuses is clearly one of the fastest growing trends.

"Higher education institutions worldwide have begun to embrace sustainability …" (Wigmore-Alvarez and Ruiz-Lozano, 2012, p. 475). The focus on sustainability within universities is increasingly a global phenomenon in countries such as Brazil (Deus et al., 2015). This engagement manifests itself in various forms. Students can earn degrees, majors, and minors in sustainability. Faculties are generating scholarly activity about sustainability. Senior leaders and board members are making decisions about how to demonstrate sustainability on the operational side of institutions in higher learning. As such, "sustainability efforts are being infused in university life now more than ever" (Skarie, 2013, p. 8).

In fact, other researchers have begun to analyze mission statements for their inclusion of terms associated with sustainability in MBA curricula (Christensen et al., 2007). However, "despite all sustainability initiatives implemented in universities, colleges, and technological institutions around the world, only a few have included sustainability in their mission statement" (Velazquez et al., 2006, p. 813). In effect, "much of the research into campus sustainability communication has been qualitative" (Dade and Hassenzahl, 2013, p. 255). This paper further adds to the body of knowledge given the empirical nature of the investigation.

THEORETICAL FRAMEWORK AND HYPOTHESES

We examined three factors that have received limited exposure in the college and university mission statement literature: sustainability, private versus public institutions, and religious affiliation. Lee et al. (2013) call for including private and public institutions in future research examining mission statements and sustainability within higher education. This same call was articulated by Nejati Shafael et al. (2011). We argue that these specific factors will help to shape the institution's mission statement, help to communicate the organization's vision, and serve an essential aspect of the strategic process (Carruthers and Lott, 1981; Keller, 1983; Martin, 1985). With regard to sustainability, we examine the impact of the inclusion of sustainability related terms on college and university performance with regard to sustainability ratings. We draw upon stakeholder theory and sustainability-related terminology to support a positive relationship between mission statement content and sustainability performance. We further propose that private and public universities may behave differently given interest groups and funding concerns. Finally, with regard to religious affiliation, we propose that college and university core values are more likely to be incorporated into the college and university mission statements, serving as the organization's vision and focusing the organization toward related outcomes. On the other hand, nonreligious-affiliated institutions may be more likely to employ mission statements that are more general and flexible, that is, "they exist because they are expected to exist" (Morphew and Hartley, 2006, p. 458), thereby reflecting a "collection of stock phrases that are either excessively vague or unrealistically aspirational or both" (Morphew and Hartley, 2006, p. 457).

Stakeholder Theory and Sustainability-Related Terminology

Adams (2006) conceptualized sustainability as consisting of three related pillars: environment; economy; and society. Each one of these pillars has stakeholders. Those who employ a stakeholder approach to management place their focus on creating value not only for the firm's financiers (shareholders, bondholders, banks, etc.), but also for the firm's customers, suppliers, employees, and

communities. Crane and Ruebottom (2011) distinguish between firms working with communities (Dunham et al., 2006) versus working in communities (Lozano, 2005). It has also been posited that sustainability exists at the intersection among the environment, society, and the economy (Gomis et al., 2011). Furthermore, it has been argued that the ethics of sustainability is the glue which holds the three legs of sustainability together and represents an ethical concept itself (Gomis et al., 2011).

Therefore, the process of managing for stakeholders requires executives to understand how these relationships work and subsequently how to effectively manage and shape these relationships (Freeman, 2007). Research indicates that stakeholders tend to reward good corporate citizens (Porter and Kramer, 2006; Smith and Alexander, 2013; Smith et al., 2010). Therefore, organizations should invest in ways to improve and communicate this type of image to stakeholders (Smith and Alexander, 2013). However, research also confirms that many consumers are often unaware of organizational practices that benefit the community and customers (Smith and Alexander, 2013). If consumers and investors are uninformed with regard to the organization's practices, then the organization must do a better job of effectively communicating its policies, practices, and activities to stakeholders (Smith and Alexander, 2013) in order to reap the benefits. "Thus, if a company wants to facilitate the process of stakeholders gaining knowledge of the company, it is helpful to use headings that are easily understood and of interest to the stakeholder" (Smith and Alexander, 2013, p. 156). Mission statements are a signaling tool to be used with different stakeholders to display what is important to the organization.

"The mission statement has become an important part of managing the organization–stakeholder relationship—it communicates the firm's identity to stakeholders" (Bartkus and Glassman, 2008, p. 208). The formulation of a mission statement is a core element in the strategic management of an organization and organizations and society may be better served by strategic corporate social responsibility (CSR) in contrast to legally imposed CSR (Husted and Salazar, 2006). Several previous studies examining mission statements and company websites, including research by Bartkus and Glassman (2008) and Smith and Alexander (2013) have drawn from stakeholder theory. With regard to mission statements,

corporate missions have "evolved into public disclosures of organization's promises to external constituencies regarding firms' commitments to stakeholders" (Bartkus and Glassman, 2008, p. 208). Bartkus and Glassman (2008) found that specific terminology mentioned within the mission statement related to social issues were more likely to be significantly associated with decision making and behaviors regarding these issues (Bartkus and Glassman, 2008).

Smith and Alexander (2013) examined specific CSR terminology in their study to determine which CSR-related headings were being used by Fortune 500 Companies on their company websites. Smith and Alexander (2013) identified terms such as sustainability, ethics, diversity, and health/wellness. Given the similarities between CSR and corporate sustainability (CS), we would anticipate that the use of specific terminology in mission statements regarding sustainability would also be significantly associated with outcomes of sustainability. Therefore, based on a stakeholder perspective, we propose the following:

> **Hypothesis 1**. *Colleges and universities with mission statements that include a greater number of sustainability constructs are more likely to successfully address these issues in practice than colleges and universities with mission statements that have fewer or no use of these constructs.*

Private Versus Public Institutions

As previously indicated, universities have a broad mandate and an even greater number of interest groups for which they are accountable. "Public schools typically operate under much tighter financial constraints than private schools. They are more restricted, both in their sources of revenue and in their freedom to spend it, due to state and federal government intervention and often union law … Private schools, on the other hand, have much more freedom to raise and spend funds…" (Comm and Mathaisel, 2005, p. 137) and engage in sustainability practices. Given competing stakeholder interests, public universities may be more likely to generalize their mission statements to allow for greater flexibility in decision making. Therefore, we propose the following:

Hypothesis 2. *Colleges and universities that are private institutions are more likely to have mission statements that include sustainability constructs making them more likely to successfully address these issues in practice than public colleges and universities.*

Private universities may be affiliated with certain religious groups, or specific fields of study, or exclusive to women, men, or military personnel. Given these differences, we move to more specifically examine whether religious affiliated institutions are more likely to employ mission statements with a focus on social capital as opposed to their secular counterparts.

Religious Affiliation

The mission statement often includes aspects of the organization's philosophy. This reflects or explicitly communicates the organization's "basic beliefs, values, aspirations, and philosophical priorities that the strategic decision makers are committed to emphasize in their management of the firm" (Pearce, 1982, p. 19). The morality associated with sustainability development is likely to be a factor in religious institutions' basic beliefs, values, and aspirations, especially as sustainability continues to grow in its link to social justice. Previous research has described religion as having a substantial interest in sustainable development since the concept's inception (Narayanan, 2013).

Certainly, religions vary widely, and so do their interpretations of environmental sustainability. However, it is also possible that religious institutions face different constraints than secular institutions. Therefore, we ponder under what conditions do religious associations have a strong influence on the ability of organizations to generate various types of social capital such as sustainability? With such core values in place, colleges and universities with religious affiliations may be more likely to incorporate these aspects into their mission statements and practices, serving as the organization's vision and focusing the organization toward related outcomes. Therefore, we propose the following:

Hypothesis 3. *Colleges and universities with religious affiliations are more likely to have mission statements that include sustainability constructs making them more likely to*

successfully address these issues in practice than nonreligious colleges and universities with missions that omit these constructs.

METHODOLOGY

Sample and Procedures

The colleges and universities in our sample consist of 347 universities from the Sustainable Endowment Institute's (2011) Green Report Card, otherwise referred to as the College Sustainability Report Card. The College Sustainability Report Card is a comparative and independent evaluation of campus and endowment sustainability best practices at colleges and universities in the United States and Canada. The Report Card focused on policies and practices concerning nine categories: Administration, Climate Change & Energy, Food & Recycling, Green Building, Student Involvement, Transportation, Endowment Transparency, Investment Priorities, and Shareholder Engagement. The Report Card was designed to identify colleges and universities that were leading by example on sustainability. In its most recent edition, "the College Sustainability Report Card covered the colleges and universities with the 300 largest endowments in the United States and Canada, as well as 22 additional schools that applied for inclusion" (www.endowmentinstitute.org). "The profiled schools have combined holdings representing more than $325 billion in endowment assets, or more than 95 percent of all university endowments" (www.endowmentinstitute.org).

The mission statements for each of these 347 universities were downloaded from the websites of each university. The data for this study were collected from the mission statements. The analysis was conducted at a micro-level via appraising the frequency of key words used in the mission statements. The respective mission statements were coded for content and common themes were analyzed.

Measures

Dependent Variable
We define the dependent variable as levels of sustainability rating. Previous research has focused upon reporting and sustainability

on campus (Wigmore-Alvarez and Ruiz-Lozano, 2012). There are three dominant sustainability reporting agencies for institutions of higher education: (1) Sustainability, Tracking, Assessment and Rating System [STARS, 2011]; (2) College Sustainability Report Card; and (3) Global Reporting Initiative (GRI, 2009). In this study, we extracted data from the College Sustainability Report Card, which is provided and managed by the Sustainability Endowments Institute (SEI). The Sustainability Endowments Institute is a non-profit organization engaged in research and education to advance sustainability in campus operations and endowment practices. The Report Card has been used as a data source in other research studies as well (Stafford, 2011; Waheed et al., 2011).

The College Sustainability Report Card (SEI, 2009) is a rating system of the degree to which higher educational institutions meet specific sustainability criteria. The *College Sustainability Report Card* is designed to identify colleges and universities that are leaders in sustainability based upon 52 indicators. Institutions are awarded points based on their levels of activity within each indicator resulting in an overall full letter grade (A through F). The purpose is to provide information for schools to learn from each other to establish more effective sustainability practices. In this regard, The Report Card functions as a self-assessment tool as well as a benchmarking tool.

Independent Variables
Our primary independent variable is corporate sustainability. This variable is examined through various sustainable constructs reflected in certain key words (sustainability, sustainable, sustained, sustaining, socially responsible, social responsibility, social responsible investing (SRI), environmental, justice, equity, and stewardship) within university mission statements. Previous researchers have utilized several of these identifying words in their studies on sustainability (Smith and Alexander, 2013; Wals and Jickling, 2002). Similar to the approach taken by Smith and Alexander (2013), an initial list of sustainability terms was created based on the review of the literature. During the collection of data, additional sustainability-related key words were added to the list, if they were relevant, that is, if they were used in the context of sustainability. The outcome was the list of 11 key words. This list is by

no means exhaustive nor does it represent a consensus list, which does not exist at this time.

Each mission statement was content analyzed for key words related to the issue of corporate sustainability. An excel spreadsheet was created and a frequency tabulation was constructed based upon the key words/phrases. The excel spreadsheet contained the name of the college/university drawn from the sample, the key words/phrases identified from the mission statements, the respective grade from the Green Report Card (College Sustainability Report Card), religious affiliation, and private/public identification. For religious affiliation and private/public identification, the websites of the 347 colleges and universities within our sample were further examined for information regarding these specific variables.

Controls

Control measures included university enrollment size and university endowment size. Analyses revealed that these variables related significantly to the sustainability ratings, therefore, they were left in the final analysis.

Content Analysis

We performed a content analysis to examine the mission statements of the colleges and universities that comprised our sample. Shapiro and Markoff (1997) define content analysis as "any methodological measurement applied to text (or other symbolic materials) for social science purposes" (p. 14). Our analysis of the coverage of the sustainability definitions in the mission statements of colleges and universities enabled us to focus our data capture and subsequent analysis. The content analysis method has been used previously by others (Ellis and Miller, 2014) as well in the area of college sustainability (Wigmore-Alvarez and Ruiz-Lozano, 2012; Montiel, 2008).

RESULTS

In a content analysis of the 347 mission statements, 65 universities (approximately 19 percent), which is almost one out of five,

included at least one of the following key words/phrases in the mission statement: sustainability; sustainable; sustained, sustaining, socially responsible; social responsibility; environmental; justice; equity; and stewardship (see Table 1). Findings revealed that among those 65 mission statements, certain key words are being used much more than others. Environmental ($n = 18$) and justice ($n = 18$) were used in nearly 28 percent of the 65 mission statements. Sustainable ($n = 14$) was used in approximately 22 percent, stewardship ($n = 10$) in 15 percent, social responsibility ($n = 8$) in 12 percent, and the rest of the terms were used in less than 10 percent of the mission statements (see Table 2). Socially Responsible Investing (SRI) ($n = 0$) was not mentioned by a single university in their mission statement and, therefore, was dropped from further analysis.

Out of 65 colleges/universities, 14 of them used two terms, and only five of them used three terms (see Table 2). Those five colleges/universities were Illinois Wesleyan University (i.e., Sustainability, Environmental, and Justice), Rollins College (i.e., Socially Responsible, Environmental, and Stewardship), Unity College (i.e., Sustainability, Environmental, and Stewardship), University of Nevada—Las Vegas (i.e., Sustainability, Environmental, and Justice), and University of Victoria (i.e., Social Responsibility, Justice, and Equity). Table 3 shows the percentage of universities with at least one of the key words listed in the mission statements organized by ratings. As can be seen, those universities with a rating of A or B are more likely to contain one of the key words. Those rated as D or F are not likely to contain any of the key words in their mission statements. Hence, it may be construed that there is an association between the inclusion of any of these key words and the sustainability ratings.

Ordinal Regression Analysis

As described above, The Green Report Card provides an ordinal, or sequential rating, where "F" stands for the lowest sustainability score up to "A" which stands for the highest sustainability score. Therefore, an ordinal regression analysis was conducted to test our proposed hypotheses. The ordinal regression model examined whether the greater number of sustainability constructs used in

TABLE 1 College/University Mission Statements and Key Words

School Name	Sustainability	Sustainable	Sustained	Sustaining	Socially responsible	Social Responsibility	Environmental	Justice	Equity	Stewardship
American University	No	No	No	No	No	No	No	Yes	Yes	No
Bates College	No	No	Yes	No	No	No	No	No	No	Yes
Bentley University	No	No	No	No	Yes	No	No	No	No	No
Boston College	No	No	No	No	No	No	No	No	No	Yes
Bowdoin College	No	No	No	No	No	No	Yes	No	No	No
Bucknell University	No	No	No	No	No	No	No	Yes	No	No
California Polytechnic State University	No	No	No	No	No	Yes	Yes	No	No	No
Carnegie Mellon University	No	Yes	Yes	No	No	No	No	No	No	No
Clarkson University	No	No	No	No	No	No	Yes	No	No	No
Colgate University	No	No	No	No	No	Yes	No	No	No	No
College of the Holy Cross	No	No	No	No	No	No	No	Yes	No	No
Creighton University	No	No	No	No	No	No	No	Yes	No	No
Duquesne University	No	No	Yes	No	No	No	No	No	No	No
East Los Angeles College	No	No	No	Yes	No	No	Yes	No	No	No
Fairfield University	No	No	No	No	No	Yes	No	Yes	No	No
Florida State University Tallahassee	No	No	Yes	No	No	No	No	No	No	No
Georgetown University	No	No	No	No	No	No	No	Yes	No	No
Gustavus Adolphus College	No	No	No	No	No	No	No	Yes	No	No
Hobart and William Smith Colleges	No	No	No	No	No	No	No	No	Yes	No
Hofstra University	No	No	No	No	No	Yes	No	No	No	No
Howard University	No	No	No	Yes	No	No	No	No	No	No

TABLE 1 (continued)

School Name	Sustainability	Sustainable	Sustained	Sustaining	Socially responsible	Social Responsibility	Environmental	Justice	Equity	Stewardship
Illinois Wesleyan University	Yes	No	No	No	No	No	Yes	Yes	No	No
Iowa State University	No	Yes	No	No	No	No	Yes	No	No	No
John Carroll University	No	No	No	No	No	No	No	Yes	No	No
Louisiana State University—Baton Rouge	No	No	No	No	No	No	Yes	No	No	No
Loyola Marymount University	No	No	No	No	No	No	No	Yes	No	No
Loyola University Chicago	No	No	No	No	No	No	No	Yes	No	No
Luther College	No	No	No	No	No	No	No	No	No	Yes
Michigan State University	No	Yes	No	No	No	No	No	No	No	No
Middlebury College	No	No	No	No	No	No	Yes	No	No	Yes
Oberlin College	No	No	No	No	No	No	Yes	No	No	No
Oregon State University-Corvallis	No	Yes	No	No	No	No	Yes	No	No	No
Ramapo College of New Jersey	Yes	No	No	No	No	No	No	No	No	No
Rider University	No	No	No	No	No	Yes	No	No	No	No
Rollins College	No	No	No	No	Yes	No	Yes	No	No	Yes
Rutgers University—New Brunswick	No	No	No	No	No	No	Yes	No	No	No
Samford University	No	No	No	No	Yes	No	No	No	No	No

TABLE 1 (continued)

School Name	Sustainability	Sustainable	Sustained	Sustaining	Socially responsible	Social Responsibility	Environmental	Justice	Equity	Stewardship
Sewanee—The University of the South	No	No	No	No	No	No	No	Yes	No	No
Unity College	Yes	No	No	No	No	No	Yes	No	No	Yes
Universite Laval	No	Yes	No	No	No	No	No	No	No	No
University of British Columbia	No	Yes	No	No	No	No	No	No	No	No
University of California—Davis	Yes	No	No	No	No	No	No	No	No	No
University of Denver	No	Yes	No	No	No	No	No	No	No	No
University of Georgia	No	No	No	No	No	No	Yes	No	No	No
University of Hawaii—Manoa	No	Yes	No	No	No	No	Yes	No	No	No
University of Louisville	No	No	No	No	No	No	No	No	Yes	No
University of Maine	No	Yes	No	No	No	No	No	No	No	Yes
University of Montana Western	No	No	No	No	No	No	Yes	No	No	No
University of Nevada—Las Vegas	Yes	No	No	No	No	No	Yes	Yes	No	No
University of Notre Dame	No	No	No	No	No	No	No	Yes	No	No
University of San Francisco	No	No	No	No	Yes	No	No	Yes	No	No
University of South Dakota—Vermillion	No	No	No	No	No	No	No	No	No	Yes
University of South Florida	No	Yes	No	No	No	No	No	No	No	No

TABLE 1 (continued)

School Name	Sustainability	Sustainable	Sustained	Sustaining	Socially responsible	Social Responsibility	Environmental	Justice	Equity	Stewardship
University of the Pacific	No	Yes	No	No	No	No	No	No	No	No
University of Toledo	No	No	No	No	No	No	No	No	No	Yes
University of Utah	No	No	No	No	No	Yes	No	No	No	No
University of Victoria	No	No	No	No	No	Yes	No	Yes	Yes	No
University of Wyoming	No	No	No	No	No	No	No	No	No	Yes
Virginia Commonwealth University	No	Yes	No	No	No	No	No	No	No	No
Wake Forest University	No	No	No	Yes	No	No	No	No	No	No
Wesley College	No	No	No	No	No	Yes	No	Yes	No	No
William Patterson University of New Jersey	No	Yes	No	No	No	No	No	No	No	No
Williams College	No	Yes	No	No	No	No	Yes	No	No	No
York University	No	No	No	No	No	No	No	Yes	No	No
Youngstown State University	Yes	No	No	No	No	No	No	No	No	No
Total	6	14	4	3	4	8	18	18	4	10

TABLE 2 Frequencies and Percentages of Colleges/Universities Featuring Key Words in Mission Statements

Key words	Total	Percentage out of 65	Percentage out of 347
Sustainability	6	9.2	1.7
Sustainable	14	21.5	4
Sustained	4	6.2	1.2
Sustaining	3	4.6	0.9
Socially responsible	4	6.2	1.2
Social responsibility	8	12.3	2.3
Social responsible investing (SRI)	0	0	0
Environmental	18	27.7	5.2
Justice	18	27.7	5.2
Equity	4	6.2	1.2
Stewardship	10	15.4	2.9
MissionStatement (Any term mentioned)	65		18.7
TotalTerms (Total terms mentioned)			
TotalTerms = 0	282		81.3
TotalTerms = 1	46		13.3
TotalTerms = 2	14		4
TotalTerms = 3	5		1.4

Note. $N = 347$ Mission Statements.

mission statements resulted in significantly higher ratings for universities with regard to the sustainability report card for the same 2011 reporting year. The result of the ordinal regression analysis indicated that our model improves our ability to predict the outcome. That is, the analysis indicates that our model provides a significant improvement from the model that uses only the intercept

TABLE 3 Frequencies and Percentages of Colleges/Universities Reporting at Least One Key Word in Mission Statement

Sustainability rating	$65 = y$	$347 = x$	y/x (%)
A	12	41	29.3
B	36	143	25.2
C	11	61	18
D	1	15	6.7
F	0	1	0

($\chi^2_{(5)} = 38.578$, $p < 0.01$) in predicting the outcome of interest. The obtained value of Pearson's chi-square for Goodness-of-fit test is not significant ($\chi^2_{(3328)} = 3160.784$, $p = 0.981$, ns) and, therefore, the model fits the data. Next, the Pseudo $R^2 = 0.121$ (Nagelkerke statistic) was calculated and again we see that 12.1 percent of the outcome is explained by our predictor variable. Finally, the test of parallel lines was performed and the resulting Pearson's chi-square value was not significant ($\chi^2_{(50)} = 64.165$, $p = 0.086$, ns) which is ideal; hence, we can assume that the odds for each explanatory variable are the same across different response categories of the outcome variable.

With regard to the parameter estimates, we see that the ordered logit coefficient for the total terms variable = 0.357, $p < 0.05$ (see Table 4), indicating significance. This result indicates that those universities with a greater number of the proposed key words mentioned in their mission statements are likely to receive higher cumulative scores on the sustainability report card than those universities with fewer or no use of the proposed key words. This finding supports Hypothesis 1.

In the ordinal regression, we further see that the ordered logit coefficient for the private versus public institution variable = 0.833, $p < 0.05$ (see Table 4), indicating significance. This result indicates that private universities are likely to receive higher cumulative scores on the sustainability report card than public colleges and universities. This finding supports Hypothesis 2.

Finally, we see that the ordered logit coefficient for the religious affiliation variable = 0.864, $p < 0.01$) (see Table 4), indicating significance. However, these results indicate that nonreligious universities are likely to receive higher cumulative scores on the sustainability report card than religious affiliated colleges and universities. This finding contradicts Hypothesis 3.

DISCUSSION

This study contributes to the body of literature on the content analysis of university mission statements in general and university mission statements related to sustainability in particular. It can be concluded that a small percentage of colleges and universities include language reflecting sustainability in their respective mission statements. Of those colleges and universities that do include

TABLE 4 Results of the Ordinal Logistic Regression Analyses With Sustainability Ratings for 2011 as the Dependent Variable

Variable	Sustainability ratings	
Threshold	Estimate	Significance
Sustainability Rating = 0	−4.099	.000
Sustainability Rating = 1	−2.475	.000
Sustainability Rating = 2	−1.874	.000
Sustainability Rating = 3	−1.269	.007
Sustainability Rating = 4	−.656	.139
Sustainability Rating = 5	.099	.818
Sustainability Rating = 6	.653	.127
Sustainability Rating = 7	1.363	.002
Sustainability Rating = 8	2.328	.000
Sustainability Rating = 9	3.485	.000
Sustainability Rating = 10	5.546	.000
Location		
TotalKeywords	.357	.039
Enrollment	3.069E-5	.012
Endowment Size	.000	.003
Private Institution = 0	.833	.010
Public Institution = 1	0[a]	
Non-Religious Affiliation = 0	.864	.002
Religious Affiliation = 1	0[a]	
Results		
χ^2	38.578	.000
Pseudo R^2 (Nagelkerke statistic)	.121	

Note. Private Institutions ($n = 192$) and Public Institutions ($n = 155$).
Religious Institutions ($n = 81$) and NonReligious Institutions ($n = 266$).
$n = 347$ institutions.
[a]This parameter is set to zero because it is redundant.

language relating to sustainability, there is evidence to suggest that they are earned higher sustainability ratings. Yet, causality cannot be established and we do not attempt to make this assertion. Specifically, it cannot be determined whether those institutions with higher rankings are more likely to contain sustainability language or sustainability language included in the mission statement is a determinant to earning a higher rating, only that the two appear to be significantly correlated. Furthermore, there is evidence to suggest that private colleges and universities are

significantly more likely to perform better on the sustainability report card than their public institution counterparts. However, there is evidence to suggest that colleges and universities with non-religious affiliations are significantly more likely to mention multiple sustainability issues within their mission statements than their religious institutional counterparts. It is possible that this result could be a product of sample size.

Limitations and Future Research

First, we acknowledge that the sample size discussed herein is relatively small given the total number of U.S. colleges and universities. However, we also recognize that faculty, students, and administrators often benchmark themselves based upon rankings of various types. Because our research questions were about general trends and the strategic behaviors of leading institutions, we felt it appropriate to constrain the sample to such leading institutions. We hope that the findings from this sample can motivate further research that covers a broader range of institutions.

Beyond the scope of this exploratory investigation is the recognition that other [moderating, mediating, confounding] variables may explain part of the relationship between the content of the mission statements and the sustainability ranking such as the prestige of the institution, the financial status of the institution, and the size of the institution. As such, future researchers may also want to include other [moderating, mediating, confounding] variables which may impact the relationship between the content of the mission statements and performance on the sustainability ranking such as institution prestige, financial health of the institution and size of the institution.

The broad survey nature of this study also means that we do not cover any school in depth. Instead, this paper is designed to assist in identifying particular issues that warrant investigations and/or case studies. As an example, future researchers could collect and analyze the investment policy statements of colleges and universities to determine the degree to which these or similar sustainability definitions are embedded within not only the mission statement of the institution but also the investment policy statement.

University sustainability assessment frameworks are gaining popularity with an increasing number of universities demonstrating leadership on combating climate change and pursuing sustainability. Nonetheless, international university sustainability ranking systems remain controversial and underutilized mainly due to the subjective concept and goal of sustainability for higher education institutions and lacking widely accepted ranking framework and criteria. In fact, it should be noted that on March 12, 2012, it was announced that The Report Card will no longer be developed. Thus, we argue for developing a practical university sustainability ranking framework that includes the core themes of sustainability and is mostly based on objectively quantifiable criteria for wide applicability to different universities worldwide. Shi and Lai (2013) have already moved to make the case for increased sustainability performance management and reporting in universities, arguing that it would lead to increased accountability and improved performance. The authors also call for social, environmental, and economic sustainability to be integrated into university processes, which has implications for university policy makers and regulators. As of now, there appears to be little attention paid to the university sector in the sustainability reporting and social responsibility literature or indeed in recognized standards for sustainability reporting and management (Adams, 2013).

Another limitation is the fact that a time lag is often experienced between the formulation of a mission statement and a theoretically predicted performance outcome. A final limitation to this work is that it is not longitudinal in its design. We recognize that a comprehensive study of mission statement change requires a longitudinal study design, and we feel that this work takes the first necessary step required for such investigations-this work establishes baseline data for use in future comparisons. Once researchers collectively build upon this foundation, the next step is to move to analysis and a stronger comparison between and among schools. Thus, we encourage researchers interested in this field to use our questions in any data collection they pursue.

Despite the concerns outlined above, we believe that these findings have considerable value for those who are interested in how the field of sustainability is expanding and contracting at major colleges and universities. Furthermore, this methodology could be employed in other industries by reviewing the mission statements

of healthcare organizations or consumer product organizations as two examples. The main conclusions and contributions of our findings are outlined below.

Contribution

It appears that our findings confirm Hitchcock and Willard (2006) who discussed the complexity of defining sustainability. Hence, it would be challenging for higher educational institutions to frame the message of sustainability in their mission statements, and, therefore, they may choose not to address the issue at all in their mission statements.

Similar to Dade and Hassenzahl's (2013) finding that about one in five (19 percent) of colleges and universities mention sustainability on their websites, our finding of 18.7 percent in mission statements is close. Our unique contribution was to focus on the mission statement rather than the entire website. Given that less than one-fifth of all colleges and universities mention any of the 10 constructs associated with sustainability in their mission statements seems at odds with Clugston and Calder (1999) who suggest that universities incorporate such language into their mission statements as one sustainability practice. Our findings disconfirm the proactive stance (de Lange, 2013) given that more than 80 percent of the surveyed colleges and universities did not mention any of the 10 constructs in their mission statements. This does not mean that there is not a lot of sustainability activity on any one of these campuses, but it suggests that the activity may be proactively driven by another document such as the strategic plan or perhaps even reactively driven.

Future research should examine the investment policy statements of colleges and universities to identify if there are any of these ten constructs related to sustainability to compare with what is written in the mission statement and posted on the websites. This research will inform policy makers, government regulators, board members, organizational leaders, and community members as to how a college/university or organization is balancing the three domains of sustainability: environment; economy; and society (Adams, 2006).

Conclusion

Mission statements are often regarded as superfluous. Yet, the strategic management and business ethics literature regards mission statements as having relevance in terms of clearly defining the purpose of the organization and establishing an "ethical compass." In this exploratory study, it appears based upon our empirical analysis that mission statements are indeed important with regard to being statistically associated with sustainability ratings. However, it cannot be concluded whether mission statements direct the institutional behavior resulting in higher sustainability ratings or whether those organizations with higher sustainability ratings reflect their practices in their mission statements. Although causality and directionally cannot be established in this investigation, it is clear that mission statements represent more than words on a page. As such, the larger society and specific communities may benefit or be harmed by the intent of the strategic direction of an organization as suggested by the mission statement as well as the subsequent behavior of the organization. In short, the contents of mission statements seem to matter.

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