



## Organization sustainability communication (OSC): Similarities and differences of OSC messages in the United States and South Korea



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### ABSTRACT

As stakeholders most frequently access Web sites to learn about environmental issues, it would be effective to display messages addressing sustainability on organizational Web sites. This study aimed to compare and contrast the content of organization sustainability communication (OSC) displayed on the Web sites of the top 100 companies in South Korea and the United States. U.S. organizations are significantly more active in communicating their values or practices regarding organizational sustainability to their stakeholders through their Web sites. Data indicated that the Web sites of South Korean companies emphasized *collectivism* ('harmony,' 'environmental heritage,' 'enterprise management,' 'performance for community,' and 'family theme' values) and *power distance* values ('hierarchy information,' 'vision statement,' and 'proper titles of executives') more so than their U.S. counterparts. However, U.S. companies displayed more values related to *uncertainty avoidance* ('customer service,' 'guided navigation,' and 'link to more specific information').

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### 1. Introduction

Over the previous decades, sustainability has become a dominant issue across the globe. National surveys have consistently confirmed that public concern regarding environmental issues is high. For example, one survey discovered that a majority of Americans consider an organization's record of environmental performance a key factor of purchase decision (Sass, 2008; Tandberg, 2007). Companies expend significant capital and resources to gain benefits from this trend. For example, the Chevron Oil Company ran the environmentally themed advertising campaign "People Do" beginning in 1985, which cost \$6 million a year, or approximately 10% of the company's entire annual advertising budget (Rowell, 1996). Companies in the United States spend approximately \$500 million to \$1 billion on green public relations every year (Dowie, 1995; Rampton & Stauber, 2001). More importantly, Global Industry Analysts predicts this trend will continue to expand and the value of the global green marketing market could reach \$3.5 trillion by 2017 (Global Industry Analysts Inc., 2011).

With the ubiquitous popularity of Internet-based technology, organizational Web sites have become a primary channel for organizations to communicate what they stand for to their stake-

holders (Coombs, 1998; Estrock & Leichty, 1998, 2000; Signitzer & Prexl, 2008). Scholars have investigated the content of organizational Web sites regarding various aspects that include; relationship building (Ki & Hon, 2006), corporate social responsibility (Capriotti & Moreno, 2007; Estrock & Leichty, 1998, 2000; Ferguson & Popescu, 2007; Signitzer & Prexl, 2008), and diversity issues (Uysal, 2013). While organizational Web sites have become a primary source for companies to communicate their proactive positions regarding organizational environmental issues to stakeholders, and stakeholders most frequently turning to Web sites to learn about environmental issues (Bortree, 2011), there is a void of research investigating how organizations communicate their sustainability messages via Web sites. Therefore, this study is designed to examine the content of organizations' sustainability messages via their Web sites.

Signitzer and Prexl (2008) have called for greater scholarly attention on organization sustainability communication (OSC hereafter) and advised researchers to consider cultural aspects for such communication. Examining cultural aspects in OSCs is important for a couple of reasons. First, both the expansion of capitalism and industrial evolution has transformed environmental challenges into a global issue, not limited by national borders. Second, OSC cannot be divorced from the influence of culture because, as Norton (2005) indicates, such communication is place-oriented. To explain cultural differences in OSC, this study applies Hofstede's

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cultural dimensions (Hofstede, 1980, 2001), which have been widely used in cultural studies to effectively explain cultural differences.

This study selected the United States and South Korea as the countries for examination for a couple of reasons. First, the United States plays a major role in public relations practices around the globe, and U.S. communication strategies often affect other countries' practices. South Korea was selected as the country of comparison because Hofstede's cultural dimensions (Hofstede, 1980) demonstrate that it is culturally distinct from the U.S. Second, this study's researchers are fluent in both Korean and English, thereby possessing the language skills necessary to interpret the contents of OSCs from both countries.

Overall, the primary purpose of this study is twofold: (1) to compare and contrast the degree to which organization sustainability messages exist via Web sites of the largest organizations in the United States and South Korea, and (2) to examine the similarities and differences in the content of such sustainability messages for these two countries. To achieve these purposes, this study uses a content analysis of OSC displayed in Web sites of the largest organizations in the two countries.

The outcomes from this study will contribute to the body of knowledge in both public relations scholarship and for OSC managers. The comparison of OSC across these two countries will provide important information about the commonalities and disparities between the sustainability values of the large organizations in these two countries. These findings will enhance our understanding of the role cultural influences play in formulating sustainability statements.

## 2. Literature review

### 2.1. Definition of organization sustainability communications (OSC)

In referring to OSC, several terms have been interchangeably used including 'corporate social responsibility communication,' 'corporate environmental communication,' 'sustainability communication,' 'societal-ecological communication,' and 'green communication,' etc. Signitzer and Prexl (2008, p. 3) proposed using the term, corporate sustainability communication (CSC) in referring to "the planned and strategic management processes of working towards balance of economic, social, and environmental goals and values" and claimed the field of public relations should apply communication dimensions and relevant theories to the area of corporate sustainability communication.

While the researchers agree with the perspective of Signitzer and Prexl (2008), this study proposed using the term, *organization sustainability communication* (OSC hereafter) instead of *corporate sustainability communication* for two main reasons. First, the term, *corporate* is commonly used to refer to a profit-oriented organization. The field of public relations makes a distinction from other relevant academic fields, such as advertising and marketing, in focusing on more diverse organizations and stakeholder bases. As the term organization can be used to refer to any type of organization, including profit, non-for-profit, international, and governmental organizations, etc., and every type of organization should communicate its sustainability practices and policies (Babiak & Trendafilova, 2011), the term 'organization' is more inclusive and suitable. Therefore, this study proposes to use the term, *organization sustainability communication*. Acknowledging a modification of the definition by Signitzer and Prexl (2008), this study defines *organization sustainability communication* as "an organization's voluntary, planned, and strategic communication efforts for working towards a balance of economic, social and environmental goals

and values in order to achieve the long-term goals of an organization and its stakeholders."

Studies that have focused on OSC can be divided into two primary categories—(1) those examining the prevalence and the contents of sustainability messages or green advertising (Banerjee, Gulas, & Iyer, 1995; du Plessis & Grobler, 2014; Easterling, Kenworthy, & Nemzoff, 1996; Iyer, Banerjee, & Gulas, 1994; Kangun, Carlson, & Grove, 1991) and (2) the effects of such communications on stakeholder behaviors (Nakajima, 2001; Park & Cameron, 2013). In public relations scholarship, OSC is still in the embryonic stage, so knowledge of OSC contents is not yet available. Therefore, as one of the first comprehensive empirical studies of this kind, this research examines the prevalence, contents and values of OSCs, thus fitting into the first category of research efforts.

### 2.2. Effects of OSC

In the fields of marketing and advertising, the outcomes of OSC have been hotly debated. Certain scholars are skeptical of the validity of OSC itself and have raised concerns about ulterior motive such as green wash (Greer & Bruno, 1996), deception of environmental claims (Carlson, Grove, & Kangun, 1993; Kangun et al., 1991), image cosmetics (Anderson, 2005), and tarnishing credibility (Pfanner, 2008). Conversely, other scholars have repeatedly demonstrated various beneficial outcomes of OSCs (Bansal & Clelland, 2004; Bortree, 2009; Cerin & Dobers, 2001; Davis, 1995; Livesey & Dearins, 2002; Sass, 2008; Sethi, 1979; Signitzer & Prexl, 2008). Specifically, scholars have stated that organizations gain several direct and indirect benefits by having sustainability communications with their stakeholders, such as (1) better reputation (Livesey & Dearins, 2002; Park & Cameron, 2013), (2) sales increase (Sass, 2008), (3) positive media coverage (Bansal & Clelland, 2004), (4) positive impact on stock price (Cerin & Dobers, 2001), (5) impact on stakeholder behavior (Davis, 1995; Signitzer & Prexl, 2008), and (6) building the level of admiration and legitimacy of an organization (Bortree, 2009; Sethi, 1979). For example, Bortree (2009) demonstrated that stakeholder awareness of an organization's environmental initiatives has a positive impact on the organization's environmental legitimacy, which is considered as a predictor of the level of admiration of an organization. Recently, Park and Cameron (2013) tested an effect of corporate sustainability communication and confirmed its efficacy in influencing science reporters' favorable evaluations regarding environmental issues.

### 2.3. Organizational Web sites for OSC

An organization's Web site is a key communication channel to display organizational values and policies to its stakeholders (Capriotti & Moreno, 2007; Coombs, 1998; Estrock & Leichty, 1998, 2000; Signitzer & Prexl, 2008), and is considered an information hub and face for the organization. Scholarship is still in the embryonic stage regarding analysis of Web sites for organization sustainable statements, with a few exceptions (Biloslavo & Trnavcevic, 2009; Rolland & Bazzoni, 2009). Biloslavo and Trnavcevic (2009) examined company Web sites in Slovenia and reported a lack of explicit statements regarding 'green' issues. Rolland and Bazzoni (2009) analyzed three prominent automobile companies' Web sites to evaluate their commitment to environmental issues, and concluded there was a lack of evidence of such commitment for the companies examined. By conducting an analysis of three retail companies' Websites and the annual sustainability reports in South Africa, du Plessis and Grobler (2014) found that all appeared to emphasize sustainability issues. Maubane, Prinsloo, and Van Rooyen (2014) analyzed the sustainability reports of Johannesburg Securities Exchange Socially

Responsible Investment (JSE SRI) companies in South Africa and found that all industry sectors tended to disclose the environment, society and governance (ESG) categories as required by the index. While the aforementioned studies are meaningful for examining some contents of OSC, there has been no comprehensive examination of OSC contents in large companies on a global scale. Displaying organizations' sustainable practices and policies on organizations' Web sites can showcase their commitment to sustainability issues. As economic development is a key driver of social and institutional capability for sustainability performance (Husted, 2005), examining OSC contents of the largest organizations in the two countries would provide practical guidelines for other organizations pursuing these steps. To investigate the extent to which organizations communicate their sustainability through their Web sites, the following research questions were posed.

**RQ1.** To what extent are organizations communicating about their sustainability practices and policies through their Web sites?

**RQ2.** What are the contents of OSC through the organizational Web sites?

#### 2.4. Cultural influence of OSC and cultural dimensions

Societal culture has a great impact on organizational culture “because the human resources of an organization are acculturated into the culture of their societies” (Sriramesh, Kim, & Tagasaki, 1999, p. 273 cited in Signitzer & Prexl, 2008). As such, the ways organizations communicate with their stakeholders cannot be void of societal cultural impact (Sriramesh & Vercic, 2003). Circulating organization sustainability to stakeholders is not possible without communication. Thus, culture is deemed to have influence on OSC.

Scholars have explored ways to measure cultural differences across countries. Hofstede (1980) identified five dimensions to examine cultural values, widely accepted as an instrument for measure of cultural values for most countries as follows: (1) individualism vs. collectivism, which explores people's relationship to others in societal context, (2) power distance, which measures the degree to which a culture accepts social hierarchy and inequalities; (3) uncertainty avoidance, which explains the level of tolerance for uncertainty or ambiguity in daily life; (4) masculinity vs. femininity, which measures the degree of gender role allocation in society; (5) short-term vs. long-term, which illustrates time horizon for a society. Long-term orientation highlights the importance of the future, while a society with a short-term orientation considers the past and present to be more important.

In consideration of Hofstede's cultural dimensions, the U.S. and Korea obviously demonstrate two different cultures. That is, the U.S. represents a low level of collectivism, weak uncertainty avoidance, a small power distance, a high level of masculinity and is a short-term oriented society, while South Korea is characterized by high collectivism, strong uncertainty avoidance, a large power distance, strong femininity, and is a long-term oriented society (Cho, Kwon, Gentry, Jun, & Kropp, 1999). Recent studies (Kim & Kim, 2010; Rodriguez & Brown, 2014; Yu, King, & Yoon, 2010) applied Hofstede's cultural dimensions and confirmed such differences between these two countries with some variations. For example, Rodriguez and Brown (2014) supported Hofstede's original claims addressing all of the dimensions, aside from power distance, between the U.S. and S. Korea, even in contemporary society.

The importance of sustainability issues can vary among countries because different societal cultures place different levels of emphasis on individual issues (Signitzer & Prexl, 2008). Collectivistic cultures place emphasis on interdependence, in-group harmony, cooperation, group-oriented goals, family security and a low level of competition in comparison with individualistic cul-

tures (Hofstede, 1980; Triandis, 1995). Studies have examined the level of impact of such cultural dimensions on stakeholders' sustainable behaviors. For example, McCarty and Shrum (2001) determined a significant effect of collectivism on consumer beliefs and actual behavior towards recycling. Meaning consumers with collectivism characteristics are more likely to participate in recycling, as they respect group goals, and are more cooperative and willing to help others. On the contrary, consumers with individualistic natures are less likely to engage in recycling (McCarty & Shrum, 2001) and other sustainability behaviors (Dunlap & VanLiere, 1984), as they view sustainability development as less important because of their individualistic perspective.

In most previous studies that evaluate organizational Web sites, culture has largely been ignored, as they predominantly focus on either local organizations or a single country (Taylor, Miracle, & Wilson, 1997). Because OSC in a broader context cannot be divorced from cultural influence, it is meaningful to examine similarities and differences of the content of OSC across different countries. Therefore, the following research question is asked:

**RQ3.** What similarities and differences in the content of OSC in terms of culture are apparent on the Web sites of the largest organizations in the U.S. and South Korea?

### 3. Method

#### 3.1. Research design

To answer the aforementioned research questions, this study investigated the cultural differences of OSC on the Web sites of major corporations in the United States and South Korea. Content analysis was used to analyze the communication patterns in regard to suitability for “disclosing international differences in communication content” (Weber, 1990, p. 9).

#### 3.2. Sampling procedure

Initially, 100 major companies from each nation were selected. The top 100 major American companies were extracted from the Global Top 2000 Companies list, published in the Web site of the American business magazine *Forbes* (DeCarlo, 2013), while the list of top 100 major South Korean companies was based on data published in the Web site of the Korean business magazine, *Hankyung* (Kim, Gwan, Lee, Kim, & Woo, 2013). The lists rank orders the individual companies regarding their size. Both business magazines are considered to be influential and reputable among business people and academic scholars (Digman, 1980; Jeon, Yoon, & Kim, 2008; Kyung-Sup, 2007; Sullivan, 1994). A coder visited all of the 200 Web sites for the major South Korean and U.S. corporations to analyze the focus of the content of OSC.

The unit of analysis is a web page, which contains the contents of sustainability and its subordinated categories. *Environmental sustainability*, *environmental performance*, *environmental stewardship*, *environment*, *environmental responsibility*, and *protecting the environment* were treated as synonym of sustainability and analyzed. Researchers analyzed information that was directly presented on the Web sites. Several Web sites display the organization's sustainability information as a sustainability reports that are usually downloadable PDF files. However, such reports were excluded as this study specifically examined the contents of sustainability in organizational Web sites.

#### 3.3. Coding scheme

The coding scheme was categorized into three categories: *nature image*, *cultural dimension*, and *pro-environmental performance*.

The *nature image* category was employed to evaluate the presence of a visual image or picture that included an environmental image, an animal in nature, and/or plant life, in order to determine how corporations were using nature images on their sustainability pages. Coding a nature image on a Web site is rationalized by the fact that the image-text congruence is more likely to encourage a positive attitude toward organizational performance (Van Rompay, De Vries, & Van Venrooij, 2010). If an image existed, “1” was coded, while “0” was coded for no image.

For the cultural dimension category, Hofstede’s five cultural dimensions instrument (2001) was applied as a fundamental criterion: collectivism vs. individualism, uncertainty avoidance, power distance, masculine vs. feminine, and long-term vs. short term orientations. This study adopted coding schemes for the first four dimensions from Singh and Matsuo (2004) and the *long-term vs. short-term orientations* dimension was based on the work of Marcus and Gould (2000). They developed coding schemes based on Hofstede’s cultural dimensions to examine cultural differences of Web sites between the U.S. and Japan.

The coding schemes were revised based on three following steps to fit the purpose of this study. In the first stage, an initial coding scheme was developed based on the literature on sustainability. A total of 36 items for the cultural dimension were initially developed and revised. For the second stage, a sample coding was performed to test the fit of the coding schemes. During the process of sample coding, the *long-term vs. short-term orientations* dimension was excluded because a survey focused on Asia cultures conducted by Hofstede and Bond demonstrated that some of the *long-term vs. short-term orientations* dimension overlapped with the *uncertainty*

*avoidance* dimensions (Marcus & Gould, 2000). Additionally, the *masculine vs. feminine* dimension was excluded for the two main reasons: (1) none of the sampled Web sites mentioned gender roles and (2) an item regarding achievement was duplicated in both the *power distance* and *masculine vs. feminine* dimensions. Gender roles and achievement are important factors for determining the *masculine vs. feminine* dimension (Cyr & Head, 2013). In the third phase, a second pretest was conducted on six samples among the first pretest samples to check stability of coding scheme (Krippendorff, 1980), and a re-test of the coding rules was performed to make further refinements from the first pretest, until each coding scheme was clear. The results of coding the six samples were similar in the comparison with the first pretest. In that sense, the coding scheme achieved stability. As a result, a total of 3 cultural dimensions, including 22 items, were used in coding.

The five categories—*product, process, inside organization movement, outside organization movement, and investment*—created by Carlson et al. (1993) were used to initiate coding of *pro-environmental performance*. As this study used open coding, “the analytic process through which concepts are identified properties, and dimensions are discovered in data” (Straus & Corbin, 1998, p. 101), the researchers examined sustainability messages to discover any ubiquitous concept or value that would emerge (see Table 1 for detailed explanation of each coding scheme).

### 3.4. Inter-coder reliability

To test inter-coder reliability, 20% of the sampled Web sites were randomly selected and coded by two coders as guided by

**Table 1**  
Coding schemes.

Nature image	<ul style="list-style-type: none"> <li>• <i>Nature image</i>: presence of a nature image (e.g., sunrise, animals, trees and plants) on sustainability Web pages</li> </ul>
Cultural dimension: Collectivism	<ul style="list-style-type: none"> <li>• <i>Group well-being</i>: to make a link between the purpose of environmental sustainability and benefits for community. Related words are community prosperity, human beings, planet, and our nation</li> <li>• <i>Harmony</i>: to emphasize the harmonious relationship between corporate and environment as well as other partners. Related words are environmental partnership, citizenship, and harmony</li> <li>• <i>Commitment to protect the environment</i>: to state protecting our environment is committed. Related words are responsibility, duty, and obligation</li> <li>• <i>Next generations</i>: whether the environmental message is concerned with children or next generations. Related words are next generation, children, kids, baby, future generation, and future society. An example picture is a child in nature</li> <li>• <i>Enterprise group goals</i>: whether the environmental sustainability is a matter for enterprise group or specific small groups. It is important that every employee has participated in the corporate movement. Related words are every staff, enterprise level, and all employees</li> <li>• <i>Performances for communities</i>: records to attend in regional community support programs related to environment. Related words are voluntary participant and charity for community</li> <li>• <i>Family theme</i>: picture of family and teams of employees. Examples are people wearing a uniform, people looked like a family</li> </ul>
Cultural dimension: Uncertainty avoidance	<ul style="list-style-type: none"> <li>• <i>Customer service</i>: routes to communicate with corporate to know something related to environmental sustainability. Examples are FAQ’s, customer service, contact, e-mail</li> <li>• <i>Guided navigation</i>: helping stuff to move to related information. Examples are site maps of web pages related to sustainability, links in the form of pictures or buttons, and “Top” button at the bottom of webpage</li> <li>• <i>Visual explanation</i>: figure to help understand information. Examples are figures explaining environmental protection steps or composition of sustainability system</li> <li>• <i>Links to more specific information</i>: links to other specific information. As an example, a link to Dow Jones Sustainability Indices whose web address is <a href="http://www.sustainability-indices.com">www.sustainability-indices.com</a></li> </ul>
Cultural dimension: Power distance	<ul style="list-style-type: none"> <li>• <i>Hierarchy information</i>: hierarchy information of sustainability organization (e.g., hierarchy organization chart for sustainability)</li> <li>• <i>CEO</i>: information related to CEO or other executives. For example, picture, statement, signature and so on of CEO, CSO (Chief Sustainability Officer), Vice President</li> <li>• <i>Quality assurance and award</i>: certificate related to environmental management, and award of pro-environmental performance (e.g., ISO 14001 certification)</li> <li>• <i>Vision statement</i>: Top-down vision statement for environmental sustainability. Examples are “Union Pacific will be recognized as being the environmentally responsible transportation leader.” – Union Pacific, “Healthy lives and a healthy environment.” – Eli Lilly and Company</li> <li>• <i>Proper titles</i>: titles of employees in charge of sustainability. An example is “Safety Environment Chief” – Samsung Techwin</li> </ul>
Pro-environmental performance	<ul style="list-style-type: none"> <li>• <i>Product</i>: the products of companies are environmentally friendly. Examples are biodegradable, and high-energy-efficiency products</li> <li>• <i>Process</i>: the process to produce a product is pro-environmental. As examples, reducing wasted water, decreasing CO<sub>2</sub> gas, changing high-energy-efficient bulbs in the office</li> <li>• <i>Inside organization movement</i>: movement for employees to behave eco-friendly. Using electronic paper rather printing papers, and using transportations rather own cars are examples</li> <li>• <i>Outside organization movement</i>: pro-environmental events with regional communities. Movement of organization executives to clean river, and free environment class for children of regional community</li> <li>• <i>Investment</i>: investment to other pro-environmental organizations. Regularly investing on a laboratory examining new clean energy sources, and making a partnership with a pro-environmental small business</li> </ul>

(Riffe, Lacy, & Fico, 1998). Coder reliability was calculated by Scott's Pi (Scott, 1955), Cohen's Kappa (Cohen, 1960), and Krippendorff (2012) and the result for all three calculations was .851. The level of reliability for each coding category reached above the acceptable threshold, .80 as suggested by Riffe et al. (1998).

## 4. Results

### 4.1. Existence of OSC

Initially, each of the top 100 companies' Web sites, a total of 200 between the U.S. and Korea, were reviewed. The review was performed to investigate the extent to which the organizations communicated their sustainability practices and policies, which satisfied the first research question. Of these 200 companies, 93 (93%) of the U.S. companies and 75 (75%) of Korean companies provided sustainability related information on their Web sites. As the goal of this study was to examine similarities and differences of OSC in the two countries, only the companies that provided contents of sustainability on their Web sites were examined. Therefore, a total of one hundred and sixty-eight, 93 U.S. and 75 Korean, Web sites were analyzed to investigate the values and the content of sustainability messages based on cultural dimensions. The prevalence of OSC on their Web sites is statistically different across the two countries' largest companies ( $\chi^2 = 12.054$ ,  $df = 1$ ,  $N = 168$ ,  $p = .000$ ).

### 4.2. Content of OSC

The second research question examined the frequency of sustainability topic. The organizational Web sites in these two countries vary significantly in three topical areas, 'process,' 'outside organization movement,' and 'investment in outside source for sustainability.' Korean companies display process related pro-environmental performance, outside organization movement, and investment, significantly more than U.S. companies ( $\chi^2 = 3.613$ ,  $df = 1$ ,  $N = 168$ ,  $p < .05$  for 'process,'  $\chi^2 = 4.04$ ,  $df = 1$ ,  $N = 168$ ,  $p < .05$  for 'outside of organization,' and  $\chi^2 = 7.232$ ,  $df = 1$ ,  $N = 168$ ,  $p < .01$  for 'investment').

### 4.3. Cultural influence of OSC contents

The last research question asked 'What similarities and differences in the content of OSC are apparent on the Web sites of the largest organizations in the U.S. and South Korea in terms of culture?' This study used three cultural dimensions—collectivism–individualism, uncertainty avoidance, and power distance proposed by Hofstede, to examine cultural influence on OSC messages.

As demonstrated in Table 2, the content of sustainability communication through the U.S. and Korean Web sites is statistically different in terms of each of the *collectivism* values except 'group well-being' according to the Chi-square tests. Overall, Korean company Web sites displayed more *collectivistic* approaches, 'harmony' ( $n = 40$ , 11.5% for Korea vs.  $n = 37$ , 11.9% for U.S.), 'environmental heritage' ( $n = 31$ , 8.9% for Korea vs.  $n = 26$ , 8.4% for U.S.), 'enterprise management' ( $n = 56$ , 16.1% for Korea vs.  $n = 34$ , 10.9% for U.S.), and 'family theme' ( $n = 51$ , 14.7% for Korea vs.  $n = 34$ , 10.9% for U.S.) more frequently than their U.S. counterparts.

The Chi-square tests confirm that each value under *uncertainty avoidance* was statistically different between U.S. and Korean Web sites, with the exception of 'terminology explanation' and 'link for detailed report.' Overall, the Web sites of U.S. organizations are more likely to apply uncertainty avoidance values such as 'customer service' ( $n = 28$ , 11.4% for U.S. vs.  $n = 15$ , 9.8% for Korea), 'guided navigation' ( $n = 29$ , 11.8% for U.S. vs.  $n = 10$ , 6.5% for Korea),

**Table 2**

Chi-square tests of sustainability communication factors between websites of major companies at the United States ( $N = 93$ ) and South Korea ( $N = 75$ ).

Measurement items	U.S. n (%) <sup>a</sup>	Korea n (%) <sup>a</sup>	$\chi^2$
<i>Collectivism vs. individualism</i>			
Group well-being	62 (19.9)	54 (15.6)	.553
Harmony	37 (11.9)	<b>40</b> (11.5)	3.070*
Commitment to protect environment	<b>82</b> (26.4)	57 (16.4)	4.307**
Next generation	26 (8.4)	<b>31</b> (8.9)	3.314**
Enterprise management	34 (10.9)	<b>56</b> (16.1)	24.240***
Performance for community	36 (11.6)	<b>58</b> (16.7)	25.130***
Family theme	34 (10.9)	<b>51</b> (14.7)	16.419***
Total	311 (100.0)	347 (100.0)	
<i>Uncertainty avoidance</i>			
Customer service	<b>28</b> (11.4)	15 (9.8)	2.227*
Guided navigation	<b>29</b> (11.8)	10 (6.5)	7.421**
Visual explanation	38 (15.5)	<b>52</b> (34.0)	13.533***
Link for detailed report	69 (28.2)	<b>48</b> (31.4)	2.041
Explanation for terminology	25 (10.2)	16 (10.5)	.693
Link to more specific information	<b>56</b> (22.9)	12 (7.8)	33.689***
Total	245 (100.0)	153 (100.0)	
<i>Power distance</i>			
Hierarchy information	2 (2.0)	<b>18</b> (11.6)	18.889***
CEO	31 (31.3)	22 (14.2)	.308
Quality assurance and award	49 (49.5)	<b>49</b> (31.6)	2.731*
Vision statement	15 (15.2)	<b>57</b> (36.8)	60.769***
Proper titles	2 (2.0)	<b>9</b> (5.8)	6.483**
Total	99 (100.0)	155 (100.0)	

Note: \*\*\* $p < .001$ , \*\* $p < .05$ , \* $p < .01$   $dfs = 1$  for all chi-square tests.

The bold indicates a statistically significantly more frequent usage of a given item. <sup>a</sup> Percentages were calculated based on the total present number within a category.

and 'link to more specific information' ( $n = 56$ , 22.9% for U.S. vs.  $n = 12$ , 7.8% for Korea) in order to communicate organizational sustainability messages.

In terms of *power distance*, statistically significant differences between the two countries' approaches are supported by the Chi-square tests, with the exception of 'CEO.' Specifically, Korean organizational Web sites tend to display more power distance approaches in the following values, 'hierarchy information' ( $n = 18$ , 11.6% for Korea vs.  $n = 2$ , 2.0% for U.S.), 'vision statement' ( $n = 57$ , 36.8% for Korea vs.  $n = 15$ , 15.2% for U.S.), and 'proper titles' ( $n = 9$ , 5.8% for Korea vs.  $n = 2$ , 2.0% for U.S.) than U.S. organizations, when displaying sustainability practices. However, U.S. organizations utilize the 'quality assurance and award' ( $n = 49$ , 49.5% for U.S. vs.  $n = 49$ , 31.6% for Korea) approach more so than Korean sites.

This study also examined the degree of *nature image* presence in the organizational sustainability Web pages for the two countries. It was shown that U.S. companies were more likely to use *nature image* to display their sustainability messages than their Korean counterparts ( $n = 62$ , 66.7% for U.S. and  $n = 34$ , 45.3% for Korea) based on Chi-square test ( $\chi^2 = 7.716$ ,  $df = 1$ ,  $p < .05$ ).

## 5. Discussion

This study aimed to compare the content of organization sustainability communication (OSC) displayed on the Web sites of the top 100 companies in South Korea and the United States, considering that the approaches of communicating such content might be different due to cultural differences. Among the 200 company Web sites initially examined, a total of one hundred and sixty-eight, 93 (93%) U.S. and 75 (75%) Korean, sites displayed some information regarding the organization's sustainability efforts. As shown, U.S. organizations tend to be significantly more active in communicating their values or practices regarding organizational sustainability to their stakeholders through their Web sites. This

significant disparity in the prevalence of OSC on organizational Web sites between these two countries is likely due to the level of economic development, a primary driver of environmental sustainability (Husted, 2005). Compared to the U.S. market, South Korea has only recently entered the mature market category, and Korean companies are in the process of actively promoting sustainability management in order to reach the level of where most North American companies are presently established. A recent report noted that South Korea has made a noticeable improvement in sustainability performance, and more leaders of Korean companies are emphasizing the importance of sustainability (RobecoSAM, 2013). Therefore, the gap between the U.S. and South Korea will shrink in terms of sustainability performance, which will be reflected in organizational Web sites in near future.

This study also examined the sustainability topics that organizations displayed on their Web sites across the two countries. Sustainability communications in these two countries varied significantly in three topical areas, ‘process,’ ‘outside organization movement,’ and ‘investment on outside source for sustainability.’ Specifically, Korean companies are more likely to communicate about process, outside organization movement and investment related sustainability performance on their Web sites than their American counterparts. Interestingly, a majority of Korean companies display specific information regarding the process of producing a product as being pro-environment. This outcome was not unexpected, as most of the organizations reviewed in this study that communicated their sustainability performance on their Web sites are regarded as industrial companies, which are generally regarded as pollution producing entities (Biloslavo & Trnavcevic, 2009). Specifically, 64 (85.3%) Korean companies out of 75 are in the industrial category. Like other studies, which confirmed the link between industry classification and level of environmental disclosure (Adams, Hill, & Roberts, 1998; Deegan & Gordon, 1996; Hackston & Milne, 1996; Patten, 1991, 2002), this study added another measure of evidence between industry classification and the level of OSC. Additionally, two other popular topical areas found on Korean Web sites are ‘outside organization movement’ and ‘investment in outside source for sustainability.’ Collaborating with various groups in society is considered a necessary skill in public relations (Ki & Kim, 2010). The outcome of this study should demonstrate the importance of an organization to work with other related groups in sustainability practices in Korea. Public relations professionals in a global organization whose stakeholders are Korean might need to consider this approach in order to communicate the organization’s sustainability performance to its Korean stakeholders.

Under the cultural dimension, *collectivism*, the Web sites of South Korea companies were found to emphasize the *collectivism* values—‘harmony,’ ‘environmental heritage,’ ‘enterprise management,’ ‘performance for community,’ and ‘family theme,’ more so than their U.S. counterparts. Like other studies (Cho & Cheon, 2005; Cho et al., 1999), which examined cultural influence on Web sites. The outcome of this study apparently supports the reflection of cultural differences in communicating organizational sustainability on the Web sites of the examined countries. In regard to Hofstede’s dimensions, Korea is deemed to concentrate on collectivistic characteristics, while the U.S. is considered individualistic. Such difference was adapted and represented in the OSC contents on the organizational Web sites. For example, the OSC page of SK innovation claims, “environment management as a core task [to] preserve the global environment by reducing greenhouse gases and minimizing pollutants” (SK innovation, 2011). This message emphasizes the collectivistic values inherent in environmental activities. Considering that Korean culture is collectivistic, OSC managers, who aim to target Korean stakeholders, are better able to differentiate the contents of OSC by emphasizing

the benefits of sustainability activities for family, community, and society.

People in cultures with high uncertainty avoidance tend to value conservatism and traditional beliefs, and prefer clear direction, instructions and rules (Hofstede, 1980). Regarding *uncertainty avoidance*, the two countries’ Web sites are statistically significantly different across four items—‘customer service,’ ‘guided navigation,’ ‘visual explanation,’ and ‘link to more specific information.’ Specifically, U.S. companies are more likely to use—‘customer service,’ ‘guided navigation,’ and ‘link to more specific information,’ than Korean companies. This research suggests that U.S. companies tend to accentuate more uncertainty avoidance values in their online sustainability communication than their Korean counterparts. This finding is somewhat counter-intuitive as the U.S. is described as a country that tends to be more tolerant of ambiguity or uncertainty.

There are a couple of reasons that might explain this unexpected finding. First, the level of development in sustainability management could be an explanation. Compared to Korea, the U.S. is more mature in terms of sustainability development and its content might be more sophisticated in concordance with the growth of sustainability management in that country. Second, the nature of the organizations examined in this study might be another explanation for the finding. All of the examined organizations were profit-oriented companies whose professional environment might drive Web site designers to avoid any ambiguity or uncertainty in order to assist potential customers in making purchase decisions.

In terms of *power distance*, Korean companies demonstrated more power distance characteristics in communicating their sustainability practices across the items, ‘hierarchy information,’ ‘vision statement,’ and ‘proper titles of executives’ than their U.S. counterparts, while U.S. companies displayed ‘quality assurance and award’ more frequently in delivering their sustainability message than did their Korean counterparts. This finding is not surprising as Korean society emphasizes hierarchy and people tend to accept a hierarchical order, which is reflected in organizational communication. Korean organizational Web sites tend to contain more information regarding references to top management titles and/or status and the sustainability activities in which the management team participates. For example, on the CEO message page of Samsung Electro-Mechanics’ Website, featuring his signature along with his picture, the CEO outlines the company’s efforts to ensure the management team’s active participation in sustainability activities (Samsung Electro-Mechanics, 2013). As Zahedi, Van Pelt, and Song (2001) proposed, in a country with a large power distance like South Korea, Web site information with hierarchical charts, titles, expertise, and authority are more likely to be perceived favorably by stakeholders. Such assumption might be reflected in OSC Web sites in Korea. Therefore, communication managers should take such cultural nuances into account when creating sustainability contents for their organizational Web sites in order to increase the effectiveness of these communications.

This study was designed to investigate cultural influence on OSC in the largest organizations in the U.S. and South Korea. The outcomes of this study will hopefully provide some direction for establishment of OSC related Web sites for the stakeholders in the countries examined in this study.

### 5.1. Limitations and future research agendas

There is no research without limitations, which can lead to avenues for future studies. The outcomes of this research should be interpreted with several limitations as follows. First, this study lacks generalizability to other countries’ cultural influence on Web communication content of OSC, as this study examines OSC

content for only two countries, South Korea and the United States. Future studies need to expand its generalizability by applying the study framework to more countries. Second, this study did not consider other variables affecting OSC, such as industry type and firm size. Therefore, future research should consider other factors that might affect OSC in Web communications. Finally, given that this study focused on the environmental aspect of sustainability, the ecological aspect was not examined. Therefore, scholars should consider either examining the ecological aspect of sustainability communication or comparing the differences between the environmental and ecological aspects in organization sustainability communication.

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