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Corporate Social Responsibility on Twitter

An Honors Thesis submitted in partial fulfillment of the requirements for Honors Studies in the Lemke Department of Journalism

By

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Abstract

Through content analysis of corporate social responsibility (CSR) on Twitter, this study examines how the country’s top and largest corporations in each of the main industries portray CSR on Twitter. The study investigates the agenda-setting potential of the CSR tweets based upon the variables examined, including (a) CSR dimension, (b) CSR topic, (c) tone, (d) stakeholders, (e) Twitter attributes, and (f) Twitter interactivity. The results indicate that CSR tweets predominantly portray the discretionary level of CSR, regardless of industry, predominantly include topics of public philanthropy, especially service-producing industries, and positive tone was used most frequently across industries. The community was the predominantly addressed stakeholder in both industries, and goods-producing industries tended to rank higher for reputation. For Twitter attributes, the common adoption rate was six years, a majority of accounts had the standard account template with a name, photo, link, and bio, and the goods-producing industries were more likely to have verified status, but a large percentage of accounts overall were verified. For Twitter interactivity, goods-producing industries has a consistent, large number of followers. Tweets predominantly had internal links, were most likely to have zero references, and tended to have one to ten retweets, regardless of industry. The goods-producing industries were more likely to have one or more hashtags and pictures, while videos were overall uncommon in tweets. These variables were evaluated to identify the agenda-setting power of each variable and draw conclusions about the power of Twitter to potentially create and transfer an agenda using CSR tweets from company to followers.
Corporate Social Responsibility on Twitter

The Internet has given consumers access to unprecedented amounts of information, and the rise of social media has presented firms with unparalleled opportunities to increase public awareness (Lee, Oh & Kim, 2013). Companies are noticing a decline in website traffic as social media gains popularity; therefore, companies have begun to place more emphasis on their use of social media as a communication tool to reach their stakeholders (“How Fortune 100 Companies,” 2011). Additionally, firms are becoming more cognizant of implementing communication strategies on social media as a means for building a relationship with the consumer and raising visibility online, specifically because of the personalization aspect that social media offers as consumers can become followers or fans (Ros-Diego & Castelló-Martínez, 2011; “How Fortune 100 Companies,” 2011).

In the category of social media, Twitter is one of the top three social media networks in the world and has become an essential medium for millions of people in their everyday life (Cozma & Chen, 2013). There are more than 500 million active users worldwide and approximately 340 million tweets sent daily (Buschow, Schneider & Ueberheide, 2014). Lee, Oh and Kim (2013) reported that 79% of Twitter followers are more likely to recommend the brands they follow and 67% of Twitter followers are more likely to buy the brands they follow. Corporate social responsibility (CSR) is the strategic implementation and presentation of activities including public philanthropy, sustainable development, labor conditions and customer rights. It is important because the benefits of positive attitudes elicited through CSR messages include purchases, seeking employment, investment, favorable brand image, and ultimately, advocacy behaviors (Lee, Oh & Kim,
Nevertheless, little is known about how companies utilize Twitter to communicate with stakeholders in terms of CSR.

The proposed study is a content analysis during 2015 of 33 Global 2000 companies, categorized by nine industries and two major industry categories, and their dimensions of CSR, including the topic of CSR, tone of information, addressed stakeholders, and attributes and interactivity of these corporations on Twitter. This study is proposed because social media continues to rise in popularity with almost two billion daily users. Additionally, Twitter recently reached a record-high of one billion active users on one day. With a population of seven billion, this means 14% of the world’s population tuned in to this single medium (D. Wijesinghe, personal communication, November 8, 2015). Therefore, understanding how the country’s top corporations are utilizing Twitter is of an unprecedented relevance. Previous studies have analyzed the media discourse of CSR in newspapers (Tang, 2012), Facebook’s impact on stakeholders (Haigh, Brubaker & Whiteside, 2012), corporate communication strategies on Facebook (“How Fortune 100 Companies,” 2011), Fortune 1000 communication strategies on Facebook and Twitter (Tao & Wilson, 2013), how Fortune 500 companies engage stakeholders using Twitter (Rybalko & Seltzer, 2010), Fortune 500’s Twitter profiles and their CSR/CSIR ratings (Lee, Oh & Kim, 2013), and CSR communication strategies for Twitter (“CSR Communication Strategies,” 2011). There are no studies that have explored this medium with an emphasis on the major U.S. industries or in relation to the agenda-setting theory; therefore, it is the first of its kind. This study will provide a snapshot, by industry category, of how 33 Global 2000 companies portray their dimensions of CSR in relation to the evolving agenda-setting theory.
The agenda-setting theory will be used to address how social media has provided companies with a new ability to set their own agenda, specifically regarding CSR conversations. Agenda-setting theory is the media’s ability to bring attention of an issue or an agenda to the public’s mind. McCombs and Shaw (1972) conducted the first empirical research on agenda-setting theory during the U.S. presidential campaign and election of 1968. They hypothesized that mass media determined the agenda for each political campaign by emphasizing certain issues and figures which affect the projected attitude of political issues, meaning voters were more likely to give saliency to the issues covered in the media. Since its development, the theory of agenda-setting has evolved with the media in which the theory is used. More recent studies have started to explore the agenda-setting power of a variety of media including stakeholder media. With the revolution of online media such as blogs, websites, or social media, these media can be mobilized by the relevant organization to reach the audience who cares about their issues. Modern day companies no longer need to rely on third party news sources to tell their stories because with the evolved media, they can tell their own. Because Twitter is one of the newest and most-used media online, it is relevant to explore and analyze the agenda-setting power of social media, especially Twitter, and what it means for users, specifically companies sharing their messages (Hunter, Van Wassenhove, Besiou & van Halderen, 2013).

Through the content analysis, the study will examine whether and how the industry category may be associated with the prominent CSR dimensions communicated through the firm’s Twitter account; what the salient CSR topics presented on Twitter are in each industry category; which stakeholders account for the largest audiences of most in
CSR Tweets; what Twitter account attributes are most salient in each industry; and what categories of Twitter interactivity are most prominently used in relation to CSR tweets. Through analyzing these aspects, a clear snapshot is developed of what agendas these companies are trying to set in the minds of their stakeholders with the new agenda-setting power of stakeholder media.

**Literature Review**

**Agenda-Setting Theory**

The agenda-setting theory is the media’s ability to bring attention of an issue or an agenda to the public’s mind. For example, if the media heavily focuses on human trafficking, then the public will start thinking about human trafficking (Hendarto, & Purwanto, 2012). This theory is based on two assumptions: the media’s ability to create reality and the correlation between higher media coverage and higher salience to the audience (Tang, 2012). A content analysis study like this one can identify what agenda might be set by a company and, potentially, transferred to its stakeholders. However, this study cannot prove causality or show that the transfer of salience actually occurred; only what agenda might be set and transferred.

McCombs and Shaw (1972) conducted the first empirical research on agenda-setting theory during the U.S. presidential campaign and election of 1968. They hypothesized that the content published by mass media determined the salient agenda of the people for each political campaign. By emphasizing certain issues and figures in the media, these were then reflected in the projected attitude of political issues among voters. In other words, the sentiment of the media was the same sentiment reflected in voters. They found that the issue agenda in the media matched the issue agenda of undecided
voters. For example, the study monitored the 1968 campaign topics that the media
presented and monitored the issues the public found salient. For the study, 100 undecided
voters were selected because of their assumed susceptibility to be exposed to campaign
information through mass media. McCombs and Shaw (1972) found a high correlation
between media coverage and the undecided voters’ judgments of issues, with a +.967
correlation for major issues covered and a +.979 correlation for minor issues covered.
The correlation between media coverage and public opinion on major campaign issues
represents a strong relationship between media coverage and public agenda, creating the
foundation for the agenda-setting theory.

Agenda-setting predicts the transfer of salience from the media to the public
agenda; however, the gatekeepers (i.e. proofreaders, editors, and/or journalists) determine
which agendas are presented in mass media (McCombs et al., 2014; Hendarto, &
Purwanto, 2012). In one study, there was a correlation between the top 10 stories on an
online blog site and those covered by traditional media. Another indication that agenda-
setting may be occurring is that 55% of the stories on the online blog site specifically
cited a mainstream media source (Johnson, 2011). This study may suggest how
companies serve as their own gatekeepers in owned media, demonstrating the expansion
of agenda-setting to owned media platforms as well.

Agenda-setting has increasingly evolved since its inception. McCombs, Shaw and
Weaver (2014) expanded agenda-setting to three different levels: basic agenda-setting,
attribute agenda-setting, and network agenda-setting. The first level is basic agenda-
setting and it identifies a correlation between the agenda of the media and the agenda of
voters. For instance, if the media is talking about environmental issues, the public is also
thinking about environmental issues. The second level, attribute agenda-setting, expanded
the theory to discuss vertical or traditional media, including network television and
newspapers, and horizontal or media horizontally instead of top-down, including social
media. In the second level, salience is transferred through vertical media but the attribute
or sentiment is transferred through horizontal media as well. For instance, if the vertical
media is talking about environmental issues, and the horizontal media attributes them to
global warming, then the public also attributes environmental issues to global warming.
Now with the rise of social media and its sharing capabilities, agenda-setting theory has
reached the third level: network agenda-setting. In this level the media can not only
influence the salience of certain topics in the public agenda, but they can also influence
how the public relate these topics to one another through methods of social sharing on
social media platforms. For instance, if the vertical media is talking about environmental
issues, and the horizontal attributes them to global warming, then the public mimics the
attributes and furthers the process by networking these thoughts through platforms, such
as social media, to their friends or followers (McCombs et al., 2014).

The expansion of agenda-setting outside the scope of traditional news media has
led to the development of a new social process known as agendamelding. This process is
the accumulation of agendas from traditional news media as well as outside sources, such
as stakeholder media. The process of melding these agendas creates a picture of the world
that fits one’s specific experiences and preferences. Agenda-setting is the transferring of
salience and agendamelding is the creation of one’s unique agenda. McCombs, Shaw and
Weaver (2014) refer to these influences as vertical media and horizontal media. The
vertical media is the civic community and includes the traditional news media. The
horizontal media is the personal community and includes more personalized media sources such as blogs, websites and other stakeholder media (McCombs et al., 2014).

In order to further understand these expanded processes in relation to agenda-setting and agendamelding, McCombs et al. (2014) conducted a replica of the 1968 Chapel Hill study to test the model of agendamelding. In the 2008 study, they interviewed 70 Chapel Hill voters and content analyzed five network evening news programs: ABC, NBC, CBS, CNN and Fox News. These served as the vertical media. However, unlike the previous study, they also content analyzed samples of broadcast radio and television hosts, such as Stephanie Miller, Rush Limbaugh and Jon Stewart. These served as the horizontal media. Then, the study compared the agendamelding of vertical and horizontal media for voters in the 2008 presidential election between Barack Obama and John McCain. Voters were categorized by their political orientation; therefore, the study found that Republican and Democrat voters were similar in their vertical media relationship, while neither was linked closely with the horizontal media analyzed. Meanwhile, independent voters had a weaker relationship with vertical media than both Republicans and Democrats. In conclusion, the study found that voters do not have a uniform relationship between their vertical and horizontal media (McCombs et al., 2014). This could perhaps be due to the expansive outlets of horizontal media available. Horizontal tends to be the more personalized media sources and specialized media; therefore, one voter’s horizontal media might be completely different than another voter’s horizontal media, even if they fall in the same political party. This might make it hard to analyze in a study when restricted by a limited number of horizontal media for the purpose of data collection (McCombs et al., 2014).
One specific platform that has become a vital commodity of today’s communication landscape is Twitter. From its inception in 2006, Twitter developed a major presence of desktop and laptop computers; however, with the expansion to mobile in 2010, Twitter more than tripled access to their application. They have also gained credibility as a news source in a couple different ways. As of 2010, Twitter content is becoming part of United States history as the network’s collection of tweets are archived by the Library of Congress. Furthermore, Pew Research Center’s Project for Excellence in Journalism now tracks Twitter news content in its New Media Index. And, finally, almost 50% of journalists use Twitter. Not only is the credibility growing, the audience is rapidly growing as well. Recently, Twitter reached a record-high of one billion active users on one day. With a population of seven billion, this means 14% of the world’s population is tuning into this single medium everyday (D. Wijesinghe, personal communication, November 8, 2015). The unique aspect of Twitter, and social media in general, unlike the other media predecessors including blogs, websites, online media and traditional media, both vertical and horizontal media can exist on one platform. Traditional news outlets are taking to social platforms, including Twitter, to attract large number of followers and distribute their news (Body Found on Twitter, 2012). For instance, The New York Times has a daily circulation of approximately 916,000, but the paper has more than 20 million Twitter followers (@nytimes on Twitter, 2015). Then in addition to the traditional vertical media, Twitter is also a host to almost one billion horizontal media sources, including bloggers, commentators, special interest profiles, peers and so many more. It is because of the growing number of horizontal media, distracting from the vertical, that researchers believe that alternative media sources can
weaken the influence of mainstream media on the public agenda, fragment interests, and lead to a multitude of media and personal agendas, unlike the uniformity and close correlations discovered in the investigation of the 1968 campaign (“Body Found on Twitter,” 2012).

More than 40 years after their original study on the agenda-setting theory, McCombs, Shaw and Weaver (2014) further developed their theory outside the boundaries of traditional media because, according to the Pew Internet and American Life Project, 81% of the US adult populations has internet access and 73% used social media. Furthermore, 90% of 18-29 year-olds use social media. The main difference between traditional and social media is that with social media the audience is not passive but mixes and shares information to both civic community and personal community based upon experiences and preferences. Until this point, agenda-setting has represented the distribution of saliences to topics presented in the traditional media; however, social media now allows for “agendamelding,” in which social users follow, create and share agendas with their communities. Therefore, with changing technology and media agenda sources, there is decentralization from core traditional media to periphery company social media platforms to distribute agendas to the stakeholders in a whole new manner (McCombs et al., 2014).

A recent study of the 2012 presidential campaign by Vargo, Guo, McCombs and Shaw (2014) put to fruition the theories above and researched the network issue agendas on Twitter. In the study, Vargo et al. (2014) demonstrated how supporters of Barack Obama and supporters of Mitt Romney reacted to different media agendas on Twitter during the 2012 U.S. presidential election. Romney supporters and Obama supporters on
Twitter were detected through sentiment analysis and used in comparison to three types of media: vertical, horizontal Republican and horizontal Democratic. The vertical media group was comprised of 54 newspaper and broadcast news networks. The horizontal Republican media group was comprised of Fox News, its television shows, its reporters and the Twitter accounts from the leading seven Republican talk shows. The horizontal Democratic media group was comprised of MSNBC, its shows, its reporters and the Twitter accounts from the leading seven Democratic talk shows. Thirty-eight million public tweets were retrieved and these Twitter messages were analyzed to identify the eight key election issues: economy, foreign policy, individual liberties, federal programs, immigration, education, environment, and big government. The study found that Obama supporter media was most closely correlated with the vertical media on all issues except for immigration, when it was more closely correlated with the horizontal Democratic. The study found that Romney supporter media was most closely correlated with the horizontal Republican media on all issues except for foreign policy, when it was more closely correlated with the vertical. In conclusion, the research found that distinct audiences melded agendas of various media differently. For instance, vertical media could be used to best predict the agenda of Obama supporters; but horizontal Republican media could be used to best predict the agenda of Romney supporters. This study also demonstrates the news credibility of Twitter, the expansion of media sources and the network level of agenda-setting through the diffusion of public Twitter messages (Vargo et al., 2014).

So what do the evolution of studies tell us? The media, both vertical and horizontal, can play a key role in the development of voter agendas. Furthermore, social
media, specifically Twitter, provides an unprecedented capability to not only transfer salience but network agendas and cause agendamelding amongst communities. Therefore, political media relations are essential in presidential campaigns, both on vertical and horizontal media. Table 1 represents the horizontal media power and influence of the candidates alone.

<table>
<thead>
<tr>
<th>Party</th>
<th>Candidate</th>
<th>Twitter Handle</th>
<th># of Followers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic</td>
<td>Hillary Clinton</td>
<td>@HillaryClinton</td>
<td>4,811,873</td>
</tr>
<tr>
<td>Democratic</td>
<td>Bernie Sanders</td>
<td>@BernieSanders</td>
<td>949,902</td>
</tr>
<tr>
<td>Democratic</td>
<td>Martin O’Malley</td>
<td>@MartinOMalley</td>
<td>111,499</td>
</tr>
<tr>
<td>Republican</td>
<td>Jeb Bush</td>
<td>@JebBush</td>
<td>384,729</td>
</tr>
<tr>
<td>Republican</td>
<td>Ben Carson</td>
<td>@RealBenCarson</td>
<td>1,042,295</td>
</tr>
<tr>
<td>Republican</td>
<td>Chris Christie</td>
<td>@ChrisChristie</td>
<td>69,757</td>
</tr>
<tr>
<td>Republican</td>
<td>Ted Cruz</td>
<td>@tedcruz</td>
<td>618,398</td>
</tr>
<tr>
<td>Republican</td>
<td>Carly Fiorina</td>
<td>@CarlyFiorina</td>
<td>629,125</td>
</tr>
<tr>
<td>Republican</td>
<td>John Kasich</td>
<td>@JohnKasich</td>
<td>145,881</td>
</tr>
<tr>
<td>Republican</td>
<td>Rand Paul</td>
<td>@RandPaul</td>
<td>727,541</td>
</tr>
<tr>
<td>Republican</td>
<td>Marco Rubio</td>
<td>@marcorubio</td>
<td>995,529</td>
</tr>
<tr>
<td>Republican</td>
<td>Rick Santorum</td>
<td>@RickSantorum</td>
<td>248,328</td>
</tr>
<tr>
<td>Republican</td>
<td>Donald Trump</td>
<td>@realDonaldTrump</td>
<td>5,074,303</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>15,809,160</td>
</tr>
</tbody>
</table>

Therefore, even without traditional vertical media, the current 2016 presidential candidates have the ability to reach more than 15 million American voters and influence their agendamelding. In the study by Vargo et al. (2014), the researchers found that on seven of eight top issues in the presidential election, the Republican supporters had a stronger correlation with the horizontal Republican media than the vertical media. Therefore, we can likely predict that the agendamelding of Republican voters will correlate closely with the horizontal media put forth, including stakeholder media such as
politician social media platforms. Together, the Republican candidates have the ability to reach 9,935,886 potential American voters, and even more with the addition of other users who will see the information due to the republishing feature “retweet.” Therefore, regardless of the decentralization of media due to the emergence of social media and other online medias, Twitter, as well as other social media platforms, still offer a unique ability to set public agenda in a way traditional media has not before.

**Dimensions of Corporate Social Responsibility**

Given the theory of agenda-setting, how the companies want to portray their CSR actions through the owned media can be presented in terms of CSR dimensions. CSR is the strategic implementation and presentation of activities including public philanthropy, sustainable development, labor conditions, and customer rights. These CSR activities occur on four different dimensions: economic, legal, ethical, or discretionary (also known as philanthropic) (Tang, 2012). Within each of these dimensions, the message’s level of salience will be transferred through the dimension (i.e. the salience is merely economically important vs. the salience is morally important). Lee and Carroll (2011) found that each of the CSR dimensions held its prominence in the media: the economic dimension in the mid-1980s and early 1990s, the philanthropic dimension in the late 1980s and early 1990s and then again in the mid-to-late 1990s, then legal responsibility in the late 1990s, followed by ethical responsibility in the early 2000s.

Economic responsibility is based on the returns of goods and services (Lee & Carroll, 2011). Corporations are largely profit-driven, and, therefore, economic performance can be prevalent in CSR messages (Lee, Fairhurst & Wesley, 2009). Economic responsibility is exhibited in CSR messages by including information on book
value, profit, market share, sales, profitability, and/or prospects (Lee & Carroll, 2011). Lee and Carroll (2011) found that in 2004, economic responsibility accounted for 25% of all levels of CSR in news stories and 24.35% of opinion pieces. By 2004, the economic dimension, with the ethical dimension, drew more discussion with the highest proportion of opinion pieces to discussion pieces than any other dimension of CSR; however, 30% of economic CSR news mentions were negative (Lee & Carroll, 2011).

In their study of business media agenda-setting, Grafstrom and Windell (2011) found that media increasingly penetrate and shape corporate agendas through the presence of content type and have an increasingly important role as the agenda-setter. Of the 274 articles Grafstrom and Windell (2011) examined, 45% or approximately 123 articles set the agenda for various dimensions of CSR. Specifically, 19.5% of those CSR articles (24 articles) set the salient agenda as economic responsibility. They presented the positive impact CSR had on economic growth through a stronger competitiveness and increased market shares, and sometimes specifically mentioned that CSR activities correlate with increased profits. This study concluded that media are the link between CSR and the growing public agenda of corporate issues.

The second dimension of CSR is legal responsibility. It entails the legal constraints that confine corporations and maintain social norms, such as sexual harassment prevention programs and workplace fairness (Lee & Carroll, 2011; Tang 2012). The legal responsibility dimension requires corporations to remain accountable to all federal, state, and local government laws and regulations (Lee, Fairhurst & Wesley, 2009). Lee and Carroll (2011) found that in 2004 legal responsibility accounted for 32% of CSR in news stories and 24.78% of opinion pieces. About 41% of legal CSR news
mentions were negative (Lee & Carroll, 2011). Lee, Fairhurst and Wesley (2009) found that 2.5% of CSR statements for the Top 100 US Retailers were on legal topics. In their study of 274 articles, Grafstrom and Windell (2011) found 20.3% of the CSR articles (25 articles) set the agenda as legal responsibility. They presented the positive impact CSR had as a risk reduction strategy meaning that it was used to avoid blunders leading to litigation.

The third dimension of CSR is ethical responsibility. It reflects and incorporates society’s expectations, standards, and norms of companies regarding what is fair and just to stakeholders (Lee, Fairhurst & Wesley, 2009; Tang, 2012). Positive ethical responsibility includes equal opportunity, fair payment, environment protection, the protection of consumers’ rights and more; whereas, negative ethical responsibility coverage includes antitrust violations, fraud, violation of environmental legislation, exploitation of labor, and failure to maintain a fiduciary responsibility toward shareholders (Tang, 2012; Lee & Carroll, 2011). In order to meet corporate ethical responsibilities, many businesses follow codes of ethics (Lee & Carroll, 2011). Lee and Carroll (2011) found that in 2004 ethical responsibility accounted for 32% of CSR in news stories and 20.65% of opinion pieces. By 2004, the ethical dimension, with the economic dimension, drew more discussion with the highest proportion of opinion pieces to discussion pieces than any other dimension of CSR; however, three percent of ethical CSR news mentions were negative (Lee & Carroll, 2011). Lee, Fairhurst and Wesley (2009) reported that 12.5% of CSR statements were ethical and grocery/restaurant retailers were more likely to present the ethical dimension than any other retailer.
The fourth and final dimension of CSR is discretionary (or philanthropic) responsibility. It highlights the voluntary contribution to communal well being and dedication to being a good corporate citizen, beyond just economic, legal and ethical responsibilities (Lee, Fairhurst & Wesley, 2009; Tang, 2012). This level can include citizenship through being active members of the community, philanthropy through the donation of money to (a) worthy cause(s), social performance through environmental action, human rights and financial integrity, and environmental performance through management of energy, emissions and waste (Lee & Carroll, 2011). Lee and Carroll (2011) found that in 2004 discretionary responsibility accounted for 11% of CSR in news stories and 30.22% of opinion pieces. About 20% of ethical CSR news mentions were negative (Lee & Carroll, 2011). Lee, Fairhurst and Wesley (2009) reported 40% of CSR statements were discretionary and 47% of discount stores mentioned their philanthropic dimension. Thirty percent of grocery/restaurant retailers showed philanthropic, and economic, messages in their CSR statements and 20% of department stores mentioned philanthropic, and economic, principles (Lee, Fairhurst & Wesley, 2009). In their study of 274 articles, Grafstrom and Windell (2011) found 5.7% of those CSR articles (7 articles) set the salient agenda as the final two dimensions, ethical responsibility and discretionary responsibility. According to the study, “pure ethical and moral dimensions of CSR as an idea are less visible” (p. 230). Additionally, CSR is seldom used for the purpose of solving societal issues or identifying morality. This study concluded that media are the link between CSR and the growing public agenda of corporate issues (Grafstrom & Windell, 2011).
Topics of Corporate Social Responsibility

As the agenda-setting theory has come to mean the “transfer of issue salience from the media to the public agenda,” it is important to identify the most salient issues in the media to identify the salient issues on the public agenda (McCombs, Shaw & Weaver, 2014, p.787). Beyond the four dimensions of CSR, there are four key CSR topics: public philanthropy, sustainable development, labor conditions and customers’ rights. Tang (2012) reported that public philanthropy includes contribution to primary and secondary education (13.8%), disaster relief (11.1%), arts and culture (7.6%), health and disability (7.4%), development and poverty reduction (6.9%), contribution to higher education (5.4%), and sports (5.2%). Lee, Fairhurst and Wesley (2009) reported that 69% of CSR programs were public philanthropy. The emphasis on public philanthropy corresponds with the importance of these matters in public discussion, which is a testament to the agenda-setting theory and the transfer of salience (Lee, Fairhurst & Wesley, 2009). In a study involving the topics of political campaigns, McCombs and Shaw (1972) found that the topics presented in the media and the topics voters found important had a very strong correlation of +.967. It is assumed that the same theory can be applied to topics in various industries outside of politics. The salience of these topics of CSR in the media, including public philanthropy, sustainable development, labor conditions and customer’s rights, should correlate with the public agenda based on the agenda-setting theory (McCombs & Shaw, 1972). It is also assumed that the topics of CSR presented by companies in their Twitter accounts should correlate with the agenda of their publics based on agenda-setting theory.
Sustainable development, including climate change, energy efficiency, and waste reduction and recycling, is the second main topic of CSR actions and messages (Hou & Reber, 2011). Lee, Fairhurst and Wesley (2009) found that 18% of respondents said they were planning to purchase more ‘eco-friendly’ products than in the past, and 17% of respondents were planning to shop at more ‘green’ retailers. About 22% of CSR programs were environmental and these programs were more likely to be supported by grocery/restaurant retailers and discount stores than retailers such as drug/convenience stores and specialty stores. Tang (2012) found that 17.7% of CSR news was on environment conservation. Mann, Byun and Kim (2013) found in a study of apparel specialty retailers that 75% of global consumers bought products that have an environmental benefit in the past 12 months, and the most popular category of CSR news, accounting for 35.29% in 2012, was reducing environmental impact of products/services.

Labor conditions, including employee welfare, employee development, equal opportunity, health and safety, providing jobs, and employee rights in decision-making, is the topic of CSR that fosters safe and respectful workplaces with continual improvement in the work experience (Hou & Reber, 2011; Tang, 2012). The most salient issue in 83 articles sampled was labor conditions or providing job opportunities from companies (20.4%). Employee welfare accounted for 12.1%, employee development accounted for 6.2%, employee health and safety accounted for 1.7% and equal opportunities accounted for 0.7% (Tang, 2012). Mann, Byun and Kim (2013) found that only 53% of the leading specialty apparel retailers examined labor issues on their website; however, after the implementation of California Transparency of Supply Chains Act in 2012, 100% of the sample companies included statements about labor issues.
Customers’ rights, including product quality, product safety, and pricing policies, is the topic of CSR that targets the customer as the primary stakeholder (Lill, Gross & Peterson, 1986; Tang, 2012). Tang (2012) reported that customers (21.2%) were the third most-addressed stakeholders in CSR messages and when customers were the stakeholder, product quality accounted for 20% of discussion and product safety accounted for 9.1% of discussion (Tang, 2014). For instance, reports of the Sanlu Group’s poisonous baby food due to a bad dairy producer made food safety a salient issue discussed in journalistic CSR messages (Tang, 2012).

**Tone of Corporate Social Responsibility Messages**

The tone of CSR messages is important because it reveals how the source assesses the issue presented. This means that if the source uses a positive tone, it assesses the issue as a positive measure on the public agenda and if the source uses a negative tone, it assesses the issue as a negative measure on the public agenda (Lee & Carroll, 2011). Positive tone is used to praise a firm for the CSR activities; the positive tone attributes favorable attitudes towards the firm mentioned in the CSR message (Lee & Carroll, 2011; Tang, 2012). Tang (2012) found that 67% of sampled CSR articles used a positive tone: 28.8% of government discourse articles were positive, 90.6% for corporate discourse, 37.5% for academic discourse and 57.1% for NGO (non-governmental organizations) discourse. The heightened positive tone of 90.6% in corporate discourse in comparison to the 28.8% of government articles or 57.1% of NGO articles can display the desired transferred salience from media to reader (Tang, 2012). Lee and Carroll (2011) found positive mentions averaged 7.75 per year, compared to 27.41 negative mentions.

McCombs, Shaw and Weaver (2014) found agenda-setting to be a sharing of saliences
between the media and the public; therefore, if the agenda set by the media is positive, the public agenda should be positive, based on the original findings during the 1968 campaigns, and those studies since.

Negative tone is used to criticize a firm engaging in unethical behavior. This means the negative tone attributes unfavorable attitudes towards the firm mentioned in the CSR message (Tang, 2012; Lee & Carroll, 2011). Tang (2012) found that 13.3% of the articles analyzed used a negative tone: 23.3% of government discourse CSR articles were negative, 0.7% for corporate discourse, 12.5% for academic discourse and 14.3% for NGO discourse (Tang, 2012). Lee and Carroll (2011) found that negative mentions were the most common and averaged 27.41 per year.

Neutral tone is the absence of both positive and negative contents in the message (Lee & Carroll, 2011). Lee and Carroll (2011) found neutral mentions averaged 1.98 per year, peaking in 2000 with six. Mixed tone includes both positive and negative statements in the CSR message (Lee & Carroll, 2011). Lee and Carroll (2011) found that mixed mentions averaged 7.35 per year. Tang (2012) found that 19.7% of the sampled articles used a mixed tone or neutral tone: 48% government discourse, 8.7% for corporate discourse, 50% for academic discourse and 28.5% for NGO discourse (Tang, 2012).

**Stakeholders addressed**

McCombs, Shaw and Weaver (2014) found with evolving media technology, there has been a shift from the core to the periphery, meaning that the general public is being divided into specific segments. These smaller public segments allow for more specific agenda-setting in particular publics. CSR messages typically target five key stakeholders: community, customer, employee, shareholder, and supplier (Tang, 2012).
Community stakeholders are primary stakeholders comprised of the general public, excluding consumers who have purchased the product or service (Tang, 2012). Tang (2012) found that the community stakeholder was the most prominent stakeholder mentioned in CSR messages with 24.7% in government discourse, 55% in corporate discourse, 12.5% in academic discourse and 71.4% in NGO discourse.

Employee stakeholders are primary stakeholders that are paid workers for an organization (Tang, 2012). Tang (2012) found that employees are the second most prominent stakeholder with 38.4% in government discourse, 21.5% in corporate discourse, 37.5% in academic discourse and 28.6% in NGO discourse. Customer stakeholders are primary stakeholders comprised of consumers that have purchased the product or service of an organization (Tang, 2012). Tang (2012) found that customers were the third in stakeholders’ prominence with 21.9% in government discourse, 22.8% in corporate discourse, 12.5% in academic discourse and 21.4% in NGO discourse.

Shareholders are primary stakeholders that invest in the company (Tang, 2012). Tang (2012) found that shareholders were rarely mentioned with 1.4% in government discourse, 3.4% in corporate discourse, 25% in academic discourse and 0% in NGO discourse. Suppliers are primary stakeholders that provide companies with business products (Tang, 2012). Tang (2012) found that suppliers were also seldom mentioned with 6.8% in government discourse, 1.3% in corporate discourse, 12.5% in academic discourse and 7.1% in NGO discourse. Therefore, if community stakeholders are the primary stakeholders for CSR messages, based on the agenda-setting theory, the media will be setting the agenda for that specific segment of the public more frequently than other stakeholders, such as suppliers (McCombs et al., 2014).
Attributes of Company Twitter Account

It is important to examine the attributes of company Twitter accounts because the rise of social media has presented unprecedented opportunities for firms to increase public awareness. Previously, traditional well-known groups of listeners are now anonymous groups of “friends” and “followers” on social media (Lee, Oh & Kim, 2013). Lee, Oh and Kim (2013) found a positive association between CSR ratings and earlier adoption of social media, where the mean adoption was 32.47 months since the firm’s initial use of Twitter and a standard deviation of 12.51 months. They also found that promptitude (the quickness in which a company adopts Twitter) is significant to positive CSR content. Proactive adoption is measured by the date of account’s first tweet and promptitude of adoption is measured by the time elapsed since Twitter was developed (Lee, Oh & Kim, 2013). As Twitter has been more recently adopted by many firms as an outlet to set their agenda and bypass news media gatekeepers, it is relevant to determine how the proactive adoption correlates with their efforts to set the CSR agenda in this new medium (Hunter et. al., 2013).

The standard company Twitter template has the account owner’s name, a short biography, an optional link to a home page and a photo (Cozma & Chen, 2013). Cozma and Chen (2013) found that 77% of Twitter profiles utilized the bio section for professional use. Only 43% of Twitter profiles had professional photographs for the account image and 7% used a symbol, unrelated image or no image at all. Cozma and Chen (2013) reported that 35% of Twitter accounts provided a link to the organization’s online source, 31% provided no link in the bio, and the other 34% linked to personal sites. Meanwhile, Rybalko and Seltzer (2010) found 95.7% of Twitter profiles had links
to the company’s website and 81.7% had a short biography of the company. The use of hyperlinks serves as an external marker of source influence. In a study comparing the influence of traditional media and the top U.S. political blogs, the researchers found that traditional media’s agenda-setting ability is no longer universal, but these new online and social platforms are redistributing power among traditional and new media. Therefore, the hyperlinks included in the Twitter biography provide an additional outlet for influence in setting the agenda (“Body Found on Twitter,” 2012).

The verified status is whether the specific account is a “verified” Twitter account, as indicated by a blue badge on the profile (Soo Jung & Hadley, 2014). Soo Jung and Hadley (2014) found that among 348 identified accounts, 70% (243) were verified demonstrating the persistence to seek credible sources. Verification is currently used to establish authenticity of identities of key individuals and brands on Twitter. Twitter verifies accounts on an ongoing basis to make it easier for users to find who they're looking for. Twitter concentrates on highly sought users in music, acting, fashion, government, politics, religion, journalism, media, sports, business and other key interest areas (“FAQs about verified accounts,” 2015). While Twitter is shifting the power of influence from traditional media to social media, followers are still looking for credibility. For example, the New York Times now only has a circulation of 916,000; however, due to their credibility and Twitter verification as a key brand that is easy for followers to find, they have nearly four million Twitter followers. Verification offers credibility and accessibility to the Twitter accounts, and therefore, a strengthened ability to set the agenda if more people can easily find the account and trust it (“Body Found on Twitter,” 2012).
Interactivity of Twitter Account

The number of followers indicates the firm’s establishment of initial presence on social media because it is the initial number of users that will be exposed to a message set on the corporate agenda (Lee, Oh & Kim, 2013). Almost 50% of Twitter users follow brand profiles; therefore, if a profile has a low following it is predicted to have low agenda-setting power (Ros-Diego & Castelló-Martínez, 2011). Lee, Oh and Kim (2013) found CSR ratings had a positive association with the greater number of followers on the firm’s social media account. Online presence for social media is demonstrated by the number of followers (Lee, Oh & Kim, 2013). Cozma and Chen (2013) found that the number of followers is significant. In their study of foreign correspondents’ interactivity on Twitter, they found that correspondents with a larger initial number of followers had a larger dissemination of their message (Cozma & Chen, 2013). In one study, the researcher defined influence on Twitter as the potential of an action of a user to initiate a further action by another user. Therefore, an increased number of followers increases the potential influence of the corporation’s Twitter account, as there is an increased potential for more users to initiate further action. With a stronger influence, this means there is an increase in the ability of the corporation to set the agenda (“Body Found on Twitter,” 2012).

According to a recent study, three-fourths of news consumers online say they receive news through e-mail or social media sites, and more than half of those consumers use those links to share news (“Body Found on Twitter,” 2012). The presence of links to company related material in a given tweet is one aspect of Twitter interactivity (Boyle & Zuegner, 2013). Wasike (2013) found 86% of all links were from mainstream company
sources. Boyle and Zuegner (2013) found that magazines posted an average of 48 tweets linking back to their websites.

The presence of outside links in a given tweet is another aspect of Twitter interactivity (Boyle & Zuegner, 2013). Cozma and Chen (2013) found that 42% of tweets included links to external sites. Boyle and Zuegner (2013) found that magazines posted an average of six tweets with outside links.

Additionally, the absence of any links in a given Twitter can characterize an account’s lack of interactivity (Boyle & Zuegner, 2013). Boyle and Zuegner (2013) found that magazines posted an average of nine tweets without links. A study analyzing agenda-setting on Twitter found that hyperlinks to news and alternative sources of content was used as a measure of agenda-setting influence, because it increased the dissemination and reach of the information posted, as 75% of news consumers online say that they receive news through email or social media, and more than 50% of those use shared hyperlinks (“Body Found on Twitter,” 2012).

Active audiences (who participate in the conversation) are a central distinction for agenda-setting in social media, as it suggests an interpersonal communication role in the agenda-setting theory process on Twitter. One specific characteristic of influence is the mention of another Twitter account (“Body Found on Twitter,” 2012). References to other Twitter accounts in a tweet are marked with the “@” symbol. Wasike (2013) found that 21% of all tweets posted were based on a mention or reference to another Twitter account. This form of reference can affect agenda-setting theory by increasing the realm of influence outside of the corporation’s followers to the followers of the referenced account as well (“Body Found on Twitter,” 2012).
The ability to retweet allows Twitter users to republish another’s message to their own network of followers. More than half of American Twitter users retweet material posted by other Twitter accounts (“Body Found on Twitter,” 2012). Retweets mean that the original tweet is being broadcast by another account to his/her own followers in order to propagate news, like forwarding an e-mail (Boyle & Zuegner, 2013). Wasike (2013) found retweets accounted for 19% of all tweets posted by the nation’s top newspapers: USA Today, Wall Street Journal, the Washington Post, and the LA Times. Cozma and Chen (2013) found that 12% of tweets from companies were retweets. Boyle and Zuegner (2013) found 80% of magazines posted retweets. These percentages are significant because retweeted messages have greater power to reach large audiences. In a recent study that examined 106 million tweets, the researcher found that retweets reached an average of 1,000 users, regardless of the number of followers of the original tweet. Retweets offer a potential to disseminate messages to an exponentially higher number of Twitter accounts, making retweet messages a valuable influence on agenda-setting on Twitter (“Body Found on Twitter,” 2012).

The hashtag or # symbol is used to mark keywords or topics and categorize messages. When Twitter users click on a hashtag in any Twitter post, Twitter will show all other Tweets marked with that same hashtag (“Using Hashtags on Twitter,” 2015). Hashtags can group and track similar information in the cacophonous world of Twitter by defining keywords, identifying trending topics, and archiving tweets associated with a specific hashtag (Boyle & Zuegner, 2013; Wasike, 2013). Cozma and Chen (2013) found that 32% of tweets used hashtags. Boyle and Zuegner (2013) found that 26% of tweets used hashtags. With the potential for more Twitter users, outside the original followers, to
CORPORATE SOCIAL RESPONSIBILITY ON TWITTER

see and disseminate the message, hashtags increase the potential for agenda-setting and influence (“Body Found on Twitter,” 2012).

Research Questions

Research Questions

No prior study has divided an investigation of the CSR Twitter messages of major corporations by industry categories. There are two main industry categories in the North American Industry Classification System (NAICS): goods-producing industries and service-producing industries. There are nine NAICS industries in these two industry categories. The goods-producing category includes three industries: natural resources and mining; construction; and manufacturing. The service-producing category includes six industries: trade, transportation and utilities; information; financial activities; professional and business services; education and health services; and leisure and hospitality (“Industries at a Glance,” 2015). However, in a study of how Fortune 100 companies are employing corporate communication strategies on Facebook, specifically between corporate ability and CSR, 89% of the collected Facebook messages were about corporate ability and only 9% of the collected Facebook messages were about CSR (“How Fortune 100 Companies,” 2011). In a more recent study, Lee, Oh and Kim (2013) reported that 79% of Twitter followers are more likely to recommend the brands they follow and 67% of Twitter followers are more likely to buy the brands they follow.

Therefore, CSR is important because the benefits of positive attitudes elicited through CSR messages include purchases, seeking employment, investment, favorable brand image, and ultimately, advocacy behaviors (Lee, Oh & Kim, 2013). As CSR messages disseminated on Twitter can have significant benefits for companies, it is important to examine what agendas companies may set by industry category. First, to
investigate how prominent CSR messages are among all messages companies tweet, the proportion of CSR messages to non-CSR messages on Twitter is examined.

**RQ1**: What percentage of the Twitter messages disseminated by top, largest corporations included CSR content?

Past research suggests that the CSR dimensions presented in Twitter messages may vary in salience. For example, Grafstrom and Windell (2011) found 19.5% of their CSR articles set the agenda using economic responsibility and 20.3% of those CSR articles set the agenda using legal responsibility. Lee and Carroll (2011) found 32% of the CSR articles set the agenda using ethical responsibility, while discretionary responsibility only accounted for 11%. Based on previous studies, ethical responsibility appears to be the most salient CSR dimension, followed by legal, economic and discretionary. Second, to investigate whether and how the largest corporations differentiate CSR messages according to industry, the CSR dimensions were analyzed by industry categories:

**RQ2**: Does the type of CSR dimension vary by industry category?

Past research suggests that the CSR topics presented most frequently in Twitter messages may vary in salience. For example, Lee, Fairhurst and Wesley (2009) reported that 69% of CSR programs were about public philanthropy and 22% were about environmental programs. Tang (2012) found that labor conditions accounted for a total of 20.7% of CSR coverage, while customer’s rights accounted for 29.1%. Based on previous studies, public philanthropy appears to be the most salient CSR topic, with the environmental, labor conditions and customer’s rights topics resting in the 20th percentile. Research Question 3 investigates the saliency of CSR topics on the country’s largest corporations’ Twitter accounts:
**RQ3**: What are the salient CSR topics presented on Twitter in the two major industry categories? Is there one common topic presented on Twitter that is prominent in every industry?

Past research suggests that the tone of CSR messages presented most frequently is positive tone and this statistic may vary in salience and perhaps by industry. Tang (2012) found that 67% of CSR articles used a positive tone, while 13.3% of CSR articles used a negative tone. He also found that 19.7% of the sampled articles used a mixed tone or neutral tone. Research Question 4 investigates the tone of CSR on the country’s largest corporations’ Twitter accounts:

**RQ4**: Does the type of tone in the CSR message vary by industry category?

Previous research suggests that the stakeholder presented most frequently in CSR messages is the community stakeholder, while customers and employees came next, followed by shareholders and suppliers. Tang (2012) found that the community stakeholder was the most prominent stakeholder mentioned in CSR messages with 55% in corporate discourse, followed by customers with 22.8% in corporate discourse and employees with 21.5% in corporate discourse CSR messages. Shareholders accounted for a small portion of corporate discourse CSR messages with only 3.4%, followed by suppliers that only accounted for 1.3%. Research Question 5 investigates which stakeholders are targeted in corporate Twitter CSR messages:

**RQ5**: Which stakeholders account for the largest audience in CSR tweets? Do the stakeholders vary by industry category?

Previous research suggests that certain account attributes are more prevalent than others and can, potentially, dictate the reach of a company’s agenda. Lee, Oh and Kim (2013) found that promptitude (the quickness in which a company adopts Twitter) is significant to positive CSR content. Comza and Chen (2013) identified a standard
company Twitter template has the owner’s name, a short biography, a photo, and an optional link. Of the Twitter accounts he analyzed 77% had a short biography, 50% had an account photo, and 69% had a link on the profile. Furthermore, Soo Jung and Hadley (2014) found that 70% of analyzed Twitter accounts were verified demonstrating the persistence to seek credible sources. Research Question 6 investigates which of these attributes are frequent by industry categories.

**RQ6**: What Twitter account attributes are most salient in the industry categories?

Prior research suggests that Twitter interactivity plays a key role in the dissemination of messages. These modes of interactivity include links in the Twitter messages, mentions of other Twitter accounts, retweets, and use of hashtags. Cozma and Chen (2013) found that 42% of tweets included links to external sites. Tweets can also link to internal sites. Wasike (2013) found 86% of all links were from mainstream company sources. He found that 21% of all tweets posted were based on a mention or reference to another Twitter account. In another recent study that examined 106 million tweets, the researcher found that retweets reached an average of 1,000 users, regardless of the number of followers of the original tweet (“Body Found on Twitter,” 2012). Wasike (2013) found retweets accounted for 19% of all tweets posted by the nation’s top newspapers. Boyle and Zuegner (2013) found that 26% of tweets used hashtags. Research Question 7 investigates which of the attributes of interactivity are most prominently used by industry categories:

**RQ7**: What tools of Twitter interactivity are most prominently used by companies in each industry category?
Methods

A content analysis of the Twitter accounts of the top three rated companies on the Global 2000 list in each of the nine industries of the North American Industry Classification System (NAICS) was conducted. Tweets from the top three companies in natural resources and mining (ExxonMobil, Chevron, and ConocoPhillips), construction (Lennar, Fluor, and D.R. Horton), manufacturing (Johnson & Johnson, Procter & Gamble, and Coca-Cola), information (Verizon Communications, ATT, and Comcast), financial activities (JPMorgan Chase, Wells Fargo, and Citigroup), professional and business services (Microsoft, Google, and IBM), education and health services (Pfizer, United Health Group, and Merck & Co), and leisure and hospitality (McDonald’s, Carnival, and Las Vegas Sands) were sampled. Because the main category of trade, transportation and utilities was so diverse, sub-categories were used and three companies from each sub-category were analyzed, specifically in trade (Wal-Mart Stores, CVS Caremark, and Home Depot), transportation (Union Pacific, United Parcel Service, and American Airlines Group), and utilities (Duke Energy, NextEra Energy, and Southern Co.). All tweets on the selected seven days from each November and December of 2015 were retrieved from the corporations’ main Twitter accounts and their CSR-focused Twitter accounts, if the company has a CSR-focused account. (Twitter handles are available in Appendix A; The World's Biggest Public Companies, 2015).

Stratified sampling was used to create two constructed weeks for the main Twitter account and the CSR-focused Twitter account, if existing, for each of the 33 companies for two months in 2015: November 1, 2015 through December 31, 2015. Constructed weeks produce better estimates than random samples by avoiding oversampling on
weekends (Riffe & Aust, 1993). Stratified sampling was used to obtain more
generalizable results in the event there were significant influxes or gaps in Twitter
activity on specific dates for specific companies (Boyle & Zuegner, 2013). On these
randomly selected days, all the tweets posted on that particular day were collected and
saved. They were coded based on whether they contained CSR content, and the CSR
tweets were analyzed further.

A coding manual was created to incorporate all of the variables under
investigation (See Appendix B for complete definitions and examples of variables). The
primary author and an independent coder coded the tweets. The independent coder, an
Honors student, was trained using the coding manual, then randomly assigned 10% of the
sample (Wimmer & Dominick, 2013). While using Scott’s pi or Krippendorf’s alpha is
preferable for calculated intercoder reliability (Wimmer & Dominick, 2013), simple
percentages were calculated to access intercoder reliability on each of the variables.
Table 2 displays the simple percentages representing intercoder reliability for each
variable.

For all variables mentioned in this paragraph, if a tweet addressed on more than
one level (or topic, tone, or stakeholder), the levels (or topics, etc.) were coded in the
order that the levels (or topics, etc.) were addressed. For identification of the dimension
of CSR, one volunteer student coder coded (a) economic responsibility, (b) legal
responsibility, (c) ethical responsibility and (d) discretionary responsibility (Lee,
Fairhurst & Wesley, 2009). For the topic of CSR addressed within the message, coders
coded (a) public philanthropy, (b) sustainable development, (c) labor conditions and (d)
customers’ rights (Tang, 2012).
## Table 2

**Intercoder Reliability by Variable**

<table>
<thead>
<tr>
<th>CSR Dimension</th>
<th>Intercoder Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Responsibility</td>
<td>95.7%</td>
</tr>
<tr>
<td>Legal Responsibility</td>
<td>97.9%</td>
</tr>
<tr>
<td>Ethical Responsibility</td>
<td>91.5%</td>
</tr>
<tr>
<td>Discretionary Responsibility</td>
<td>93.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CSR Topic</th>
<th>Intercoder Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Philanthropy</td>
<td>100.0%</td>
</tr>
<tr>
<td>Sustainability</td>
<td>97.9%</td>
</tr>
<tr>
<td>Labor Conditions</td>
<td>100.0%</td>
</tr>
<tr>
<td>Customer Rights</td>
<td>97.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tone of Information</th>
<th>Intercoder Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Tone</td>
<td>93.6%</td>
</tr>
<tr>
<td>Negative Tone</td>
<td>100.0%</td>
</tr>
<tr>
<td>Neutral Tone</td>
<td>93.6%</td>
</tr>
<tr>
<td>Mixed Tone</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stakeholders Addressed</th>
<th>Intercoder Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>100.0%</td>
</tr>
<tr>
<td>Customers</td>
<td>97.9%</td>
</tr>
<tr>
<td>Employees</td>
<td>95.7%</td>
</tr>
<tr>
<td>Shareholders</td>
<td>97.9%</td>
</tr>
<tr>
<td>Suppliers</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Twitter Attributes</th>
<th>Intercoder Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption Rate</td>
<td>97.9%</td>
</tr>
<tr>
<td>Full Standard Format</td>
<td>100.0%</td>
</tr>
<tr>
<td>Verified Status</td>
<td>97.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Twitter Interactivity</th>
<th>Intercoder Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Followers</td>
<td>89.4%</td>
</tr>
<tr>
<td>Presence of Internal Link</td>
<td>93.6%</td>
</tr>
<tr>
<td>Presence of External Link</td>
<td>95.7%</td>
</tr>
<tr>
<td>No Link</td>
<td>97.9%</td>
</tr>
<tr>
<td>References</td>
<td>97.9%</td>
</tr>
<tr>
<td>Retweets</td>
<td>95.7%</td>
</tr>
<tr>
<td>Hashtags</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
For sub-topics of public philanthropy addressed within the message, coders coded (a) education, (b) arts and culture, (c) public health, (d) sports, (e) disaster relief, (f) development and poverty reduction, and (g) other. For the tone of the information in the CSR message, coders coded (a) positive tone, (b) negative tone, (c) neutral tone and (d) mixed tone (Lee & Carroll, 2011). For the stakeholders addressed, coders coded (a) community, (b) customer, (c) employee, (d) shareholder, (e) supplier and (f) other (Tang, 2012; see Appendix B).

In order to identify how Twitter messages are viewed and disseminated with these specific CSR messages, coders identified attributes of a firm’s Twitter account and interactivity. The attributes of a firm’s Twitter account included: (a) proactive adoption, (b) full standard format, (c) verified status (Lee, Oh & Kim, 2011; Soo Jung & Hadley, 2014). Coders coded interactivity by (a) number of followers, (b) presence of links to internal, company related material, (c) presence of outside links, (d) absence of link, (e) reference to other Twitter account(s), (f) retweets, and (g) hashtags (Boyle & Zuegner, 2013; Cozma & Chen, 2013; See Appendix B for complete definitions and examples of variables).

For industry information of the company being analyzed, coders coded (a) industry and (b) industry category (Lee, Oh & Kim, 2013; Industries at a Glance: NAICS Code Index, 2015; See Appendix B for complete definitions are examples of variables).

**Results**

Research Question 1 asked what percentage of the Twitter messages disseminated by these top, largest corporations included CSR content. Of the 1,265 sampled tweets from all of the 33 companies, 464 (37%) contained CSR content. Table 3 represents the
number of total tweets, tweets with CSR content and percent of tweets with CSR content for company, industry and industry classification. The goods-producing industries had a higher percent of CSR tweets (49%) than the service-producing industries (31%).

<table>
<thead>
<tr>
<th>Company</th>
<th>Total Number of Tweets</th>
<th>Tweets with CSR Content</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExxonMobil</td>
<td>68</td>
<td>51</td>
<td>75%</td>
</tr>
<tr>
<td>Chevron</td>
<td>16</td>
<td>9</td>
<td>56%</td>
</tr>
<tr>
<td>Conoco Phillips</td>
<td>12</td>
<td>10</td>
<td>83%</td>
</tr>
<tr>
<td>Lennar</td>
<td>62</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Fluor</td>
<td>14</td>
<td>7</td>
<td>50%</td>
</tr>
<tr>
<td>D.R. Horton</td>
<td>54</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>111</td>
<td>94</td>
<td>85%</td>
</tr>
<tr>
<td>Procter &amp; Gamble</td>
<td>3</td>
<td>2</td>
<td>67%</td>
</tr>
<tr>
<td>Coca-Cola Company</td>
<td>45</td>
<td>13</td>
<td>29%</td>
</tr>
<tr>
<td>Wal-Mart Stores</td>
<td>9</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>CVS Caremark</td>
<td>52</td>
<td>28</td>
<td>54%</td>
</tr>
<tr>
<td>Home Depot</td>
<td>24</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>Union Pacific</td>
<td>7</td>
<td>3</td>
<td>43%</td>
</tr>
<tr>
<td>United Parcel Service</td>
<td>45</td>
<td>16</td>
<td>36%</td>
</tr>
<tr>
<td>American Airlines Group</td>
<td>14</td>
<td>5</td>
<td>36%</td>
</tr>
<tr>
<td>Duke Energy</td>
<td>51</td>
<td>25</td>
<td>49%</td>
</tr>
<tr>
<td>NextEra Energy</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Southern Co.</td>
<td>20</td>
<td>14</td>
<td>70%</td>
</tr>
<tr>
<td>Verizon Communications</td>
<td>157</td>
<td>33</td>
<td>21%</td>
</tr>
<tr>
<td>ATT</td>
<td>51</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>Comcast</td>
<td>43</td>
<td>17</td>
<td>40%</td>
</tr>
<tr>
<td>JP Morgan Chase</td>
<td>22</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>Wells Fargo</td>
<td>38</td>
<td>12</td>
<td>32%</td>
</tr>
<tr>
<td>Citigroup</td>
<td>53</td>
<td>15</td>
<td>28%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>4</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>Google</td>
<td>28</td>
<td>5</td>
<td>18%</td>
</tr>
<tr>
<td>IBM</td>
<td>63</td>
<td>14</td>
<td>22%</td>
</tr>
<tr>
<td>Pfizer</td>
<td>91</td>
<td>26</td>
<td>29%</td>
</tr>
<tr>
<td>United Health Group</td>
<td>7</td>
<td>6</td>
<td>86%</td>
</tr>
<tr>
<td>Merck &amp; Co</td>
<td>29</td>
<td>10</td>
<td>34%</td>
</tr>
<tr>
<td>McDonald’s</td>
<td>20</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>Carnival</td>
<td>41</td>
<td>7</td>
<td>17%</td>
</tr>
</tbody>
</table>
Research Question 2 asked whether the type of CSR dimension varied by industry category. Results were significant only for legal responsibility. Goods-producing industries had more legal responsibility tweets than service-producing industries, $X^2 (1, N = 464) = 5.22, p = .022$. One cell had fewer than five observations (value = 2) and there were very few legal responsibility tweets overall, so these results must be considered with caution. There were no significant differences for other CSR dimensions. Table 4 displays the frequency and percentages of CSR dimensions by industry category. The most prominent CSR dimension across both industries was discretionary responsibility.

Research Question 3 asked what the salient CSR topics that were presented on Twitter in each of the two major industry categories were. It also asked if there was one common topic presented on Twitter that is prominent in every industry. Public
philanthropy was prominent in every industry as the percentage of CSR tweets on public philanthropy differed by industry category, \( X^2 (1, N = 464) = 5.57, p = .018 \).

<table>
<thead>
<tr>
<th>CSR Dimensions</th>
<th>Number of Tweets for Goods-Producing Industries</th>
<th>Percent</th>
<th>Number of Tweets for Service-Producing Industries</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Responsibility</td>
<td>39</td>
<td>21%</td>
<td>65</td>
<td>24%</td>
</tr>
<tr>
<td>Legal Responsibility</td>
<td>7</td>
<td>4%</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Ethical Responsibility</td>
<td>38</td>
<td>20%</td>
<td>42</td>
<td>15%</td>
</tr>
<tr>
<td>Discretionary Responsibility</td>
<td>123</td>
<td>65%</td>
<td>190</td>
<td>69%</td>
</tr>
</tbody>
</table>

It appears that goods-producing industries tweet fewer public philanthropy messages than expected while service-producing industries tweet more than expected. Given the more personal interactions with customers in service-producing industries, perhaps these companies try to set an agenda of other ways they serve the welfare of consumers, reflecting a need to build and sustain a positive reputation among customers. Public philanthropy topics were divided into seven main categories: education, arts and culture, public health, sports, disaster relief, development and poverty reduction, and veterans. Table 5 displays the number of tweets and percentages in each sub-category.

For the topic of sustainability, the percentage of CSR tweets regarding sustainability did differ by industry category, \( X^2 (1, N = 464) = 16.78, p < .000 \). These findings suggest that the goods-producing industries tweet about sustainability more than expected, while the service-producing industries tweet about sustainability less than expected. Given the direct relationship with raw materials, especially in natural resources and mining, environmental precautions are core factors to consider in the industry, while
For the topic of customer rights, the percentage of CSR tweets that had the topic of customer rights did differ by industry category, $X^2 (1, N = 464) = 13.25, p < .000$. However, as one of the cells had fewer than five observations, results must be considered with caution. It appears that the goods-producing industries tweet about customer rights less than expected, while the service-producing industries tweet about customer rights more than expected. While the goods-producing industries are making the goods, the service-producing industries are distributing and selling the goods and services to customers, and, therefore, presumably have to acknowledge the rights of the customers as the customer’s choice determines a service-producing industry company’s success.

Labor rights were not significant for either industry type. Table 6 displays the frequency and percentages of CSR topics by industry category.

Research Question 4 asked if the type of tone in the CSR message varied by industry category. There were no significant differences in tone by industry category;
however, positive tone was the most prominent in both categories. Table 7 displays the frequency and percentages of tone by industry category.

<table>
<thead>
<tr>
<th>CSR Topics</th>
<th>Number of Tweets for Goods-Producing Industries</th>
<th>Percent</th>
<th>Number of Tweets for Service-Producing Industries</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Philanthropy</td>
<td>138</td>
<td>73%</td>
<td>226</td>
<td>82%</td>
</tr>
<tr>
<td>Sustainability</td>
<td>47</td>
<td>25%</td>
<td>29</td>
<td>11%</td>
</tr>
<tr>
<td>Labor Rights</td>
<td>15</td>
<td>8%</td>
<td>30</td>
<td>11%</td>
</tr>
<tr>
<td>Customer Rights</td>
<td>2</td>
<td>1%</td>
<td>25</td>
<td>9%</td>
</tr>
</tbody>
</table>

Table 7

<table>
<thead>
<tr>
<th>CSR Topics</th>
<th>Number of Tweets for Goods-Producing Industries</th>
<th>Percent</th>
<th>Number of Tweets for Service-Producing Industries</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Tone</td>
<td>156</td>
<td>83%</td>
<td>239</td>
<td>87%</td>
</tr>
<tr>
<td>Negative Tone</td>
<td>6</td>
<td>3%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Neutral Tone</td>
<td>24</td>
<td>13%</td>
<td>33</td>
<td>12%</td>
</tr>
<tr>
<td>Mixed Tone</td>
<td>3</td>
<td>2%</td>
<td>3</td>
<td>1%</td>
</tr>
</tbody>
</table>

Research Question 5 asked which stakeholders account for the largest audience in CSR tweets and whether the stakeholders vary by industry category. Community stakeholders was the largest audience addressed in CSR tweets in both industry categories; however, only customer stakeholders differed by industry, $X^2 (1, N = 464) = 43.92, p < .000$. It appears that goods-producing industries mention customers less than expected, while the service-producing industries mention customers more than expected. This parallels the similar finding in the CSR topic of customer rights. Service-producing industries interact with customers far more frequently than goods-producing industries,
and, therefore, utilize the media as a way to speak directly to those consumers buying their products. Table 8 displays the frequency and percentages of stakeholders addressed by industry category.

<table>
<thead>
<tr>
<th>Addressed Stakeholders</th>
<th>Number of Tweets for Goods-Producing Industries</th>
<th>Percent</th>
<th>Number of Tweets for Service-Producing Industries</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>189</td>
<td>100%</td>
<td>274</td>
<td>99%</td>
</tr>
<tr>
<td>Employees</td>
<td>47</td>
<td>25%</td>
<td>58</td>
<td>21%</td>
</tr>
<tr>
<td>Customers</td>
<td>5</td>
<td>3%</td>
<td>71</td>
<td>26%</td>
</tr>
<tr>
<td>Shareholders</td>
<td>19</td>
<td>10%</td>
<td>17</td>
<td>6%</td>
</tr>
<tr>
<td>Suppliers</td>
<td>1</td>
<td>1%</td>
<td>3</td>
<td>1%</td>
</tr>
</tbody>
</table>

Research Question 6 asked what Twitter account attributes are most salient in the large industry categories. Of the proactive adoption attribute, most tweets were from a Twitter account that had been adopted at least six years ago or longer, representing 287 tweets out of 464 total tweets (62%). The percentage of years since adoption of Twitter did appear to differ by industry category; however, a Chi-Square test could not be conducted, as some cells had no observations. Table 9 displays the number of tweets by a company’s number of years since the adoption of Twitter.

These basic template Twitter attributes did not vary by industry. The template was almost unanimous with the name (100%), photo (100%), bio (99.8%), and link (95%). Goods-producing industry companies were more likely to have verified status, $X^2 (1, N = 464) = 13.52, p < .000$. Table 10 displays the frequency and percentages of verified accounts by industry category.
Table 9

<table>
<thead>
<tr>
<th>Number of Years since Twitter Adoption</th>
<th>Total Tweets</th>
<th>Goods-Producing Industries Tweets/Percentages</th>
<th>Service-Producing Industries Tweets/Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td>0 (0%)</td>
<td>30 (11%)</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>0 (0%)</td>
<td>5 (2%)</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>0 (0%)</td>
<td>7 (3%)</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>0 (0%)</td>
<td>9 (3%)</td>
</tr>
<tr>
<td>5</td>
<td>91</td>
<td>63 (33%)</td>
<td>28 (10%)</td>
</tr>
<tr>
<td>6</td>
<td>287</td>
<td>124 (66%)</td>
<td>163 (59%)</td>
</tr>
<tr>
<td>7</td>
<td>32</td>
<td>2 (1%)</td>
<td>30 (11%)</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>0 (0%)</td>
<td>3 (1%)</td>
</tr>
</tbody>
</table>

Table 10

<table>
<thead>
<tr>
<th>Industry Category</th>
<th>Number of Tweets from a Verified Account</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods-Producing Industries</td>
<td>181</td>
<td>96%</td>
</tr>
<tr>
<td>Service-Producing Industries</td>
<td>234</td>
<td>85%</td>
</tr>
</tbody>
</table>

Research Question 7 asked what categories of Twitter interactivity are most prominently used by each industry category. The number of followers did differ by industry category, $X^2 (1, N = 464) = 110.31, p < .000$. Service-producing industries tended to have a smaller or larger number of followers (0 to 50,000 or 200,001 or more followers), while goods-producing industries tended to have a medium sized number of followers (50,001 to 200,000 followers).

There were no significant differences for links, references, retweets and videos; however, goods-producing companies were more likely to use hashtags while service-
producing companies were more likely to exclude hashtags, $X^2 (1, N = 464) = 43.47, p < .000$. Goods-producing companies were also more likely to have pictures, $X^2 (1, N = 464) = 9.45, p = .002$. Table 11 displays the frequency and percentages of Twitter interactivity by industry category.

Table 11

<table>
<thead>
<tr>
<th>Frequency and Percentages of Twitter Interactivity Components by Industry Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency and Percentages of Number of Followers by Industry Category</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>0-50,000</td>
</tr>
<tr>
<td>50,001-100,000</td>
</tr>
<tr>
<td>100,001-200,000</td>
</tr>
<tr>
<td>200,001+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency and Percentages of Links by Industry Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Internal Links</td>
</tr>
<tr>
<td>External Links</td>
</tr>
<tr>
<td>No Links</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency and Percentages of References by Industry Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Zero</td>
</tr>
<tr>
<td>One</td>
</tr>
<tr>
<td>Two</td>
</tr>
<tr>
<td>Three or more</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency and Percentages of Retweets by Industry Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Zero</td>
</tr>
<tr>
<td>1 to 10</td>
</tr>
<tr>
<td>11 to 20</td>
</tr>
<tr>
<td>21+</td>
</tr>
</tbody>
</table>

| Frequency and Percentages of Hashtags by Industry Category |
### Limitations

To my knowledge, this is the first study to examine the CSR tweets of large, ranked companies in major industries, so the research questions are descriptive. This content analysis study can only identify the agenda that corporations may be sharing about CSR using Twitter; it cannot reveal whether this agenda is transferred to stakeholders.

The sample only represents seven composite days from November and December. The fourth quarter tends to be very high in advertising due to the holidays, so there is a chance that companies could have been less focused on CSR, or because it was the holidays, there is a chance that they could have been more focused on CSR. This data sample is small with only 464 tweets; therefore, no conclusions could be drawn about the individual industries within the main two industry categories. An increased sample size could allow for a more careful examination of individual industries, as well as the Twitter attributes and interactivity that enable the dissemination of CSR messages.

All of the selected companies are ranked in the top 2000 companies in the world; they have more resources at their disposal than most ordinary, unranked companies.
Therefore, the conclusions drawn regarding Twitter attributes and interactivity, as well as CSR efforts could vary for companies on a smaller scale with fewer resources.

**Discussion**

The findings from this study of CSR on Twitter indicate the increasing presence and power of Twitter, and social media as a whole, on presenting a company’s owned content. More than one-third of all the tweets in this study had CSR content, suggesting that companies actively use CSR to build brand image and potential relationships with community stakeholders and potential consumers.

Companies sought to portray their concern with the welfare of the public through the discretionary dimension, above any other dimensions. Of the four dimensions of CSR, economic, legal, ethical and discretionary, discretionary was the dimension most frequently portrayed through CSR tweets. Of the four dimensions of CSR, it appeared that only legal responsibility was significant by industry category, specifically the goods-producing industries. Within this industry category, the natural resources and mining industry appears more likely to stress legal responsibility, setting an agenda favorable to a company’s interests. For example, Conoco Phillips tweeted, “Yesterday's policies are holding back U.S. #energy today. Get the facts on #oilexports: http://bit.ly/1PQUVWQ,” with a link leading to an article on their website regarding legislation of U.S. crude oil exports.

Public philanthropy was the most prominent CSR topic across all industries. Service-producing industries used public philanthropy to demonstrate their devotion to the public’s welfare because they serve the public directly. Sustainability was the second most prominent topic and goods-producing industries appeared to be significantly more
likely to set an agenda based on sustainability. As these goods-producing industries rely heavily on raw materials, they use the topic of sustainability to set their agenda as green and environmentally friendly companies. For instance, Chevron tweeted, “See how Subsea Mudlift Drilling improves drilling safety, process, & environmental impact http://spr.ly/6015BVqst,” with a link leading to an article on their website regarding the environmentally friendly practice.

While customer rights represented the least prominent CSR topic, service-producing industries appeared significantly more likely to focus their agenda on customer rights, presumably, because service-producing industries have more direct interaction with their customers than goods-producing industries and, therefore, utilize the topic of customer rights to set their agenda as customer friendly. For instance, Comcast tweeted, “You deserve the best & we're on a mission to deliver. Read about what we've done to improve: http://comca.st/cx,” with a link to an article regarding what Comcast has implemented to improve the customer experience, including timely arrival for installation appointments, consistent billing, scheduling capabilities for phone calls, and faster responses in store, online and on the phone. Comcast sets the agenda with the rights that are due to customers and transfers the salience of what they are implementing to make those claims true.

Regarding the sub-topics of public philanthropy, public health (26%) was the most frequently mentioned sub-topic, followed by veterans (22%), development & poverty reduction (21%), and education (20%). Presumably, it appears that all companies want to develop a positive reputation about topics that have a strong social impact on social welfare, relevant to the widest audience possible. While arts and culture and sports
are important, they are not grave issues. Disaster relief is grave yet less frequent. Therefore, it appears that companies want to show their dedication to major, grave issues that can affect a large number of people in order to relate and transfer salience to the largest number of followers. For instance, on the topic of public health, CVS Caremark tweeted “We're proud to support @HealthIsPrimary & highlight the importance of collaboration between @MinuteClinic & PCPs. http://www.businesswire.com/,” with a link to a press release regarding how CVS is working to increase coordination of care between primary care providers and retail pharmacies and clinics, and ultimately make healthcare cheaper and more accessible to everyone.

The most prominent tone across all industries in CSR messages was positive tone, implying that companies hope these messages set a positive sentiment that will transfer to Twitter followers. Seemingly, using a positive tone for the CSR messages and the company brand sets an agenda for followers to associate that same positivity with posted CSR messages, and ultimately, their brand, which could potentially lead to brand loyalty and product purchase decisions. Specifically, positive tone in public philanthropy topics is significant, $X^2 (1, N = 464) = 20.10, p < .000$, and the tweet count higher than expected across both industry categories. In contrast, positive tone in sustainability topics is significant, $X^2 (1, N = 464) = 23.32, p < .000$, and the tweet count is lower than expected across both industry categories. For example, United Health Group tweeted, “@PVA1946’s work is more critical than ever in helping #veterans transition to civilian life. #OneNationUnited.” This public philanthropy tweet, specifically regarding veterans, utilizes positive tone as it associates its work as critical and utilizes the hashtag #OneNationUnited, which is also positive.
While few tweets utilized a negative, neutral or mixed tone, companies in the goods-producing industry appeared to be more likely to tweet CSR messages with a negative tone. Based on the select tweets that had negative tone, negative tweets appeared solely in the goods-producing industries, specifically the natural resources and mining industries. All the tweets that are negative are categorized under the sustainability topic, \( X^2 (1, N = 464) = 18.77, p < .000 \). These tweets appeared to have a negative tone in defense of previously negative allegations. The pairing of negative tone with CSR messages and the company brand, in the defense of negative allegations, associates the negativity with the accusing source questioning the discretionary responsibility of the company and associates that negative tone with the source of the accusations. For example, Exxon Mobil tweeted “Don't just trust @InsideClimate' "reporting" and "analysis" – read all the documents and make up your own mind http://exxonmobil.co/1Mbz5ZP,” with a link to documents that discredit the source mentioned in the negative tweet.

Community was the most prominent stakeholder addressed in CSR tweets across all industries. Therefore, the agenda set by companies was targeted primarily to community stakeholders, suggesting companies wanted to raise widespread awareness about their brand and CSR agendas among the general public. Service-producing industries focused their agenda on the topic of customer rights and address customer stakeholders, presumably because they want to initiate interaction with customers, build relationships that will lead to purchase decisions and brand loyalty, and to set an agenda as being customer friendly. This parallels the service-producing industries’ greater likelihood of also discussing the topic of customer rights in their CSR messages. For
example, Pfizer tweeted, “We’ve doubled allowable income level for assistance program to make more patients in need eligible for free PFE Rxs http://on.pfizer.com/1PclOE4,” with a link to an article discussing their plan to benefit even more patients taking Pfizer medicines. This tweet is directed to the customer, while also discussing the customer’s rights for improved assistance.

Of the six main attributes of a Twitter account, the most frequent number of years of adopting a Twitter account was six years ago. Goods-producing industries are more likely to have proactive adoptions of 4-6 years while service-producing industries are more likely to have proactive adoptions of 1-3 years or 7 or more years. Therefore, goods-producing industries have likely been using Twitter as a platform for setting agendas longer than the service-producing industries who have only recently joined the medium. Goods-producing industries were more likely to have a verified status and used their status to present themselves as a credible source. The accounts that did not have verified status were mainly secondary accounts dedicated to CSR or news or had an adoption rate of 4 years or less. The only outlier was Pfizer, who had an adoption rate of 6 years, tweets frequently, and is ranked highly, has a high company age. Perhaps the only indicator for this might be their size, as they earned less than $5 billion in sales; however, it is unclear why Pfizer has not attempted to get verified.

In this study, Twitter interactivity (including number of followers, internal links, external links, retweets, hashtags, etc.) displays the reach of the agendas or issues set forth by the companies on this platform. Based on number of followers (50,000 to 200,000) and the goods-producing industries category, the agenda is most likely to be public philanthropy (73%), followed by sustainability (15%), labor rights (6%), and
customer rights (0.6%). However, as service-producing industries include six industries (compared to the three industries in the goods-producing category), they present a greater variety of content to their followers. For instance, Google, part of the professional and business services industry in the service-producing category, had over 13.6 million followers, the most of any company in this study. In contrast, NextEra Energy, part of the trade/transportation/utilities industry in the service-producing category, only had 856 followers, the least of any company in this study. Based on number of followers (fewer than 50,000 or more than 200,000) and the service-producing industries category, the agenda is most likely to be public philanthropy (85%), labor rights (11%), customer rights (9%), and sustainability (8%). These followers are the audience that will initially read the issues and agendas set forth by companies.

Tweets in both major industry categories were more likely to have internal links than external links or no links. The link back to internal content is likely to enhance and expand the content of the original Twitter message, continuing the agenda-setting process by directing the reader to additional and more diverse supporting materials. This means even though a tweet is limited to 140 characters, situations where salience of the CSR tweet message has been transferred and the follower is interested in learning more, the internal link gives a direct connection to more information.

Service-producing industries’ CSR Twitter messages were less likely to reference another Twitter account, and if they did it was typically to only one other Twitter account. Service-producing industries that referred to only one Twitter account in their CSR messages most frequently were discussing the topic of public philanthropy (85%), followed by customer rights (13%), labor rights (11%), and sustainability (8%).
Companies used this interactivity feature of referencing other accounts to enhance tweet content and continue the agenda-setting process by directing the interested followers, in instances where salience of the topic was transferred, to further supporting materials from the referenced account.

Agenda-setting theory predicts that a retweet is a good indicator of network agenda-setting, as the person “retweeting” believes in the CSR content so much that they want to share it with their own followers. Tweets retweeted 21 or more times were primarily about sustainability (13.2%) and public philanthropy (12.6%). The average number of retweets for the entire sample was 39 retweets; however, the median of retweets for the entire sample was 5 retweets. There were three tweets that individually got over 1,000 retweets; however, the accounts for these tweets had over 3 million followers, whereas the average number of followers was 353,628 and the median number of followers was 125,000. Coca Cola had the most tweets that were retweeted 20 or more times. However, the company with the most retweets of a single tweet was Google with 8,296 retweets. This suggested that the CSR topic most effective with Twitter followers was public philanthropy and sustainability; therefore, the agendas set forth by companies were more likely to be transferred through retweeting if they involved these topics.

Most tweets from all industries included one hashtag, while for the goods-producing industries, tweets with one, two, or three or more hashtags had a value greater than expected. For the service-producing industries, tweets with zero hashtags had a greater value than expected. As goods-producing industries were more likely to have hashtags, these hashtags were most frequently used in tweets on the topic of public
philanthropy (73%), followed by sustainability (25%), labor rights (9%), and customer rights (1%).

Like retweets and references, hashtags allow followers and non-followers to track and find information.

While only a small percent of CSR tweets contained video content, most tweets contained picture content. Goods-producing industries were more likely to post pictures of public philanthropy (74%) or sustainability content (23%) and used these photos to show their CSR efforts in action (36%), others showed generic photos relevant to the CSR message (24%), graphic designs relevant to the CSR message (24%) and photos of employees relevant to the CSR message (16%).

**Conclusion**

Based on this study, is this the ideal type of tweet to build a company’s agenda and maximize the vertical, horizontal and network dispersion through agenda-setting theory? It includes the topic of public philanthropy or sustainability on a discretionary dimension of putting the public’s welfare first, using positive tone and a picture depicting CSR in action. The Twitter account also has verified status of Twitter account to enhance credibility. Figure 1 displays the ideal type of tweet to build a company’s agenda and network dispersion through agenda-setting.

Agenda-setting theory was initially discovered and researched solely in newspapers, then expanded to broadcast media. Over the years, the theory and what we know about it continues to evolve as the media in which it is used evolves. While Twitter is currently a prominent medium, it will evolve and industries must learn to use new platforms. Hopefully, if the industries and researchers can take the foundations of this
study, expand the knowledge of the content industries disseminate, and consider the power of the media they use, future research may reveal the most effective content, techniques and venues to use to successfully create an agenda using CSR messages.

Future Research

With this study as a possible foundation for future studies regarding how companies share their social values with followers on social media, there are several ways future researchers and the industry can expand upon this research. Future researchers could collect more data during a longer time period in order to draw statistical conclusions about smaller and more specific industries within the major two industry
categories. The expanded amount of data could shed light on the habits and trends of niche industries, and also account for variation in CSR messages by seasons or quarters.

Researchers could also examine the transfer of salience based on the agenda-setting theory by evaluating how and why the messages posted by the companies in different industries are received and perceived by social media followers.

Future research could examine the types of messages that tend to be retweeted by followers and could track how broad the dispersion among the networks actually was. Furthermore, future research should examine what aspects of these topics, as well as what executional factors in the tweets (such as including hashtags or photos), led to retweeting.

This study found that verified status was more likely for goods producing companies and suggested that it adds credibility to the source of the CSR messages. Future research should examine whether verified accounts are actually viewed as more credible by followers and whether this contributes to a firm’s positive reputation.

This study found that a majority of the pictures included in CSR tweets depicted the company’s CSR efforts in action. Future research should investigate if the depiction of CSR actions results in a better image for the company. As public philanthropy and sustainability were the topics most prominently retweeted, future research could investigate if retweeting these topics was more likely when photos or other elements are included in a tweet.

While this study focuses on Twitter, future research could investigate how different industries utilize the agenda-setting theory on any social media platform through their CSR messages and the components of the platform to disseminate messages and transfer salience.
References


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doi:10.1080/17512786.2012.683340


Haigh, M. M., Brubaker, P., & Whiteside, E. (2012). Facebook: Examining the


responsibility differently? An investigation through the lens of stakeholder theory.  

*Journal of Marketing Communications, 14*(2), 113-124.


The North American Industry Classification System (NAICS) presented by the United States Department of Labor and the Bureau of Labor Statistics is used to code by industry. There are two main industry categories: goods-producing industries and service-producing industries.

The nine industries include natural resources and mining, construction, manufacturing, trade/transportation/utilities, information, financial activities, professional and business services, education and health services, and leisure and hospitality (Industries at a Glance: NAICS Code Index, 2015).

Goods-producing industries:
1= Natural resources and mining
2= Construction
3= Manufacturing

Service-producing industries:
4= Trade/ Transportation/ Utilities
   Sub Code 1= Trade
   Sub Code 2= Transportation
   Sub Code 3= Utilities
5= Information
6= Financial Activities
7= Professional and business services
8= Education and Health services
   Sub Code 4= Education
   Sub Code 5= Health services
9= Leisure and hospitality

Within each of these industries, there are three key companies based on the Forbes Global 2000 list of companies around the world. This means they are in the top 2,000 companies in the world and will serve as examples for any company in the world (The World’s Biggest Public Companies, 2015). Therefore three companies in each industry classification were selected for inclusion in the study.

<table>
<thead>
<tr>
<th>Co. No</th>
<th>Code</th>
<th>Company Name</th>
<th>Twitter Handle(s)</th>
<th>Co. Rank</th>
<th>Co. Age</th>
<th>Co. Size</th>
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<tr>
<td>1</td>
<td>1</td>
<td>ExxonMobil</td>
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<tr>
<td>8</td>
<td>3</td>
<td>Procter &amp; Gamble</td>
<td>@ProcterGamble</td>
<td>36</td>
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</tbody>
</table>
*No education companies were ranked in the global 2000 list; therefore, no companies will be analyzed for education and no conclusions will be drawn about the education industry.*

<table>
<thead>
<tr>
<th>No.</th>
<th>Rank</th>
<th>Company Name</th>
<th>Twitter Handles</th>
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<th>Friends</th>
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<td>@Microsoft</td>
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<td>@google</td>
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<td>IBM</td>
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<td>8-5</td>
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<td>@pfizer @pfizer_news</td>
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<tr>
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<td>United Health Group</td>
<td>@UnitedHealthGrp</td>
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<td>353</td>
<td>11</td>
<td>14,580,000,000</td>
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</tbody>
</table>
Appendix B
Corporate social responsibility coding instructions

I. Company Information

a. Industry Categories
   • The North American Industry Classification System (NAICS) presented by
     the United States Department of Labor and the Bureau of Labor Statistics is
     used to code by industry. There are two main industry categories: goods-
     producing industries and service-producing industries (Industries at a Glance:
     NAICS Code Index, 2015).
     o 1= Goods-producing industries
        ▪ Natural resources and mining
        ▪ Construction
        ▪ Manufacturing
     o 2= Service-producing industries
        ▪ Trade/Transportation/Utilities
        ▪ Information
        ▪ Financial Activities
        ▪ Professional and Business Services
        ▪ Education and Health Services
        ▪ Leisure and hospitality

b. Industry
   • The industry categories come from the North American Industry
     Classification System (NAICS) of the United States Department of Labor and
     the Bureau of Labor Statistics. The nine industries include natural resources
     and mining, construction, manufacturing, trade/transportation/utilities,
     information, financial activities, professional and business services, education
     and health services, and leisure and hospitality (Industries at a Glance: NAICS
     Code Index, 2015).
     o 1. Natural resources and mining: The natural resources and mining
        super sector consists of these sectors: Agriculture, Forestry, Fishing
        and Hunting and Mining, Quarrying, and Oil and Gas Extraction
     o 2. Construction: he construction sector comprises establishments
        primarily engaged in the construction of buildings or engineering
        projects (e.g., highways and utility systems). Establishments primarily
        engaged in the preparation of sites for new construction and
        establishments primarily engaged in subdividing land for sale as
        building sites also are included in this sector. Construction work done
        may include new work, additions, alterations, or maintenance and
        repairs. Activities of these establishments generally are managed at a
        fixed place of business, but they usually perform construction
        activities at multiple project sites. Production responsibilities for
        establishments in this sector are usually specified in (1) contracts with
the owners of construction projects (prime contracts) or (2) contracts with other construction establishments (subcontracts) (Industries at a Glance: NAICS Code Index, 2015).

- **3. Manufacturing**: The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing (Industries at a Glance: NAICS Code Index, 2015).

- **4. Trade/transportation/utilities**: The trade, transportation, and utilities super sector is part of the service-providing industries super sector group. The trade, transportation, and utilities super sector consists of these sectors: Wholesale Trade, Retail Trade, Transportation and Warehousing, and Utilities (Industries at a Glance: NAICS Code Index, 2015).
  - 1- Trade
  - 2- Transportation
  - 3- Utilities

- **5. Information**: The Information sector comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data. The main components of this sector are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound recording industries; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; Web search portals, data processing industries, and the information services industries. The Information sector groups three types of establishments: (1) those engaged in producing and distributing information and cultural products; (2) those that provide the means to transmit or distribute these products as well as data or communications; and (3) those that process data (Industries at a Glance: NAICS Code Index, 2015).

- **6. Financial activities**: The financial activities super sector is part of the service-providing industries super sector group. The financial activities super sector consists of these sectors: Finance and Insurance
and Real Estate and Rental and Leasing (Industries at a Glance: NAICS Code Index, 2015).

- 7. Professional and business services: The professional and business services super sector is part of the service-providing industries super sector group. The professional and business services super sector consists of these sectors: Professional, Scientific, and Technical Services, Management of Companies and Enterprises, and Administrative and Support and Waste Management and Remediation Services (Industries at a Glance: NAICS Code Index, 2015).

- 8. Education and health services: The education and health services super sector is part of the service-providing industries super sector group. The education and health services super sector consists of these sectors: Educational Services and Health Care and Social Assistance (Industries at a Glance: NAICS Code Index, 2015).
  - 4- Education
  - 5- Health Services

- 9. Leisure and hospitality: The leisure and hospitality super sector is part of the service-providing industries super sector group. The leisure and hospitality super sector consists of these sectors: Arts, Entertainment, and Recreation and Accommodation and Food Services (Industries at a Glance: NAICS Code Index, 2015).

Time and Date

1. Month
   a. 1 = November
   b. 2 = December

2. Day of the week the tweet was posted
   a. 1= Monday
   b. 2= Tuesday
   c. 3= Wednesday
   d. 4= Thursday
   e. 5= Friday
   f. 6= Saturday
   g. 7= Sunday

3. Time the tweet was posted (Boyle & Zuegner, 2013)
   - Record time in the coding excel document using military time.

II. Type of Tweet Content
The coder should indicate whether the tweet content was corporate social responsibility, informative, promotional or other so that the percentage of all tweets that were CSR can be calculated.
Corporate Social Responsibility: Corporate social responsibility attempts to create corporate associations regarding their corporate social responsibility efforts in areas of public philanthropy, sustainable development, labor conditions and customers’ rights (How Fortune 100 Companies, 2011; Tang, 2012).

- Example: McDonald’s Corp., which plans to spend $400 million this year to build or remodel about 1,400 restaurants, says that fully $100 million of that sum will be used to buy recycled products (Lee & Carroll, 2011). In this example the corporation is attempting to make an association

  \( \begin{align*}
  I & = \text{yes}, \; \theta = \text{no} \\
  \text{If CSR content, proceed to coding step three}
  \end{align*} \)

Promotional (of product or service): Promotional attempts to emphasize the company’s expertise or relevance in terms of products and services (How Fortune 100 Companies, 2011).

- Example: No surprises or hidden fees. Verizon now offers five new prepaid plans to suit your needs (Verizon News, 2015).

  \( \begin{align*}
  I & = \text{yes}, \; \theta = \text{no} \\
  \text{If promotional content, stop coding now}
  \end{align*} \)

Informative: Informative is information that is not for promotional purposes or corporate social responsibility measures (How Fortune 100 Companies, 2011).


  \( \begin{align*}
  I & = \text{yes}, \; \theta = \text{no} \\
  \text{If informative content, stop coding now}
  \end{align*} \)

Other

  \( \begin{align*}
  \text{If other content, stop coding now}
  \end{align*} \)

III. Tone of Tweet
Positive Tone

- Utilized when a firm is praised for its CSR activities (Tang, 2012).

  \( \begin{align*}
  I & = \text{yes}, \; \theta = \text{no} \\
  \text{An advertisement that directly advocated a social-responsibility theme.}
  \end{align*} \)

- **EXAMPLE:** "Don't litter," "Support the government" and "Take safety precautions at work." An advertisement which depicted a social-responsibility recipient in a favorable light. Examples are energetic, elderly consumers, informed conservationists and working women. An advertisement which favorably illustrated a goal of a social-responsibility issue (e.g., including a racially integrated group in an illustration) (Lill, Gross & Peterson, 1986).

- Positive tone referred to an attribute’s mention that was favorable toward a firm linked to a CSR dimension (Lee & Carroll, 2011).

- The category “Positive” refers to content that is positive toward the company. Media contents to be coded positive generally refer to the company with
positive emotional appeal, as an object of admiration and respect, or particularly trustworthy (Lee & Carroll, 2011).

- **EXAMPLE:** McDonald’s Corp., which plans to spend $400 million this year to build or remodel about 1,400 restaurants, says that fully $100 million of that sum will be used to buy recycled products. McDonald’s promises that this big jump in its support for recycling ... will continue indefinitely. Given a big enough market, recycled products are often cheaper than virgin materials; in time, then, McDonald’s profits ought to be boosted. That consideration in no way detracts from the social value of what the fast-food chain is doing. Los Angeles Times, April 19, 1990, p. B6 (Lee & Carroll, 2011).

**Negative Tone**

- Applied to a firm involved with unethical behaviors (Tang, 2012).
- \( I = \text{yes}, \theta = \text{no} \)
- Negative tone referred to an attribute’s mention that was unfavorable toward a firm linked to a CSR dimension (Lee & Carroll, 2011).
- The category ‘‘Negative’’ refers to content that is unfavorable toward the company. This includes comments where material about the company generates negative emotional appeal, or is portrayed as unworthy of admiration, respect, or trust. This may include a response where the company is made to sound not as well off as a contrasting company via statement of preference (Lee & Carroll, 2011).
- **EXAMPLE:** I find it particularly troubling that Enron paid no corporate income taxes in four of the last 5 years (front page, Jan. 17). Here is a company that claimed to be a leading corporate citizen and that could not possibly have done more to pervert our democratic, free-market system. My sincere hope is that the pernicious system of corporate influence in Washington and in the state capitals that permitted this debacle to occur will continue to be exposed so that it can be dismantled (The New York Times, January 23, 2002, p. 18) (Lee & Carroll, 2011).

**Neutral Tone**

- Neutral tone referred to an attribute’s mention in relation to a firm linked to a CSR dimension that lacked either positive or negative statements (Lee & Carroll, 2011).
- \( I = \text{yes}, \theta = \text{no} \)
- The category ‘‘Neutral’’ refers to an attribute mentioned in relation to the company that has the absence of both positive and negative contents in the story (Lee & Carroll, 2011).
- **EXAMPLE:** The Dell Computer Corporation said yesterday that it was lowering the base price of 14 personal computers and expanding services like the pre-installation of software and telephone assistance (The New York Times, February 10, 1993, p. 5) (Lee & Carroll, 2011).

IF BOTH NEUTRAL AND MIXED ARE CODED AS ZERO, HOW DO YOU DISTINGUISH THEM IN YOUR DATA SET?
Mixed Tone

- Associated with a declarative news tweet without any evaluative modifiers or a news tweet that offers both positive and negative evaluation of CSR (Tang, 2012).
- \( I = \text{yes}, \theta = \text{no} \)
- Mixed tone referred to an attribute’s mention in relation to a firm linked to a CSR dimension that had both positive and negative statements (Lee & Carroll, 2011).
- The category “Mixed” refers to an attribute mentioned in relation to the company that has both positive and negative contents in the story (Lee & Carroll, 2011).

**EXAMPLE:** At Enron.com, the company’s website, one learns that as a “global corporate citizen” Enron intends to conduct itself in accord with four capital-V Values: respect, integrity, communication, and excellence. This is fairly standard stuff, but a more detailed reading may provide some insight into Enron’s corporate psyche.... Take respect: “We treat others as we would like to be treated ourselves.” Fair enough. However, Enron elaborates: “We do not tolerate abusive or disrespectful treatment. Ruthlessness, callousness and arrogance don’t belong here.” Oh my. Who brought up ruthlessness, callousness, and arrogance? As a corporate communications editor, I’ve read hundreds of companies’ V&V statements, and nowhere have I seen a single reference to ruthlessness, callousness, or arrogance—let alone all three (The New York Times, January 19, 2002, p. 19) (Lee & Carroll, 2011).

IV. Stakeholders addressed- A stakeholder is the audience invested in the person, place or thing. Corporate social responsibility messages typically target five key stakeholders: community, customer, employee, shareholder and supplier (Tang, 2012).

Primary stakeholders are those groups essential to the continued operation of corporation. Primary stakeholders include the community, customers, employees, shareholders and suppliers (Tang, 2012).

1. **Community**
   - \( I = \text{yes}, \theta = \text{no} \)
   - General public excluding customers, employees, shareholders or suppliers (Tang, 2012).
   - This would include a stakeholder who is not a customer, employee, shareholder or supplier but still follows the firm on Twitter. TANG?

2. **Customer**
   - \( I = \text{yes}, \theta = \text{no} \)
   - Consumers that purchase products/services of an organization (Tang, 2012).

3. **Employee**
   - \( I = \text{yes}, \theta = \text{no} \)
   - Works for the organization (Tang, 2012).

4. **Shareholder**
Order stakeholders are addressed:
1. Community
2. Customer
3. Employee
4. Shareholder
5. Supplier
6. Other

V. Dimension of CSR - Corporate social responsibility is the strategic implementation and presentation of activities including public philanthropy, sustainable development, labor conditions and customer rights. These corporate social responsibility activities occur on four dimensions: economic, legal, ethical, or discretionary (also known as philanthropic) (Tang, 2012).

1. Economic responsibility
   - \( I=\text{yes}, \theta=\text{no} \)
   - Centers on corporate economic return to society in terms of goods and services (Tang, 2012).
   - Typically, organizations are largely driven by profit, therefore economic performance often overrides the other three CSR components identified by Carroll (Lee, Fairhurst & Wesley, 2009)
   - **EXAMPLE:** ‘We are proud of the positive economic impact we have on communities – from the job opportunities we provide to the money we save working families; and from the tax revenue we generate to ... ’ (Wal-Mart) (Lee, Fairhurst & Wesley, 2009).
   - Specifically, economic responsibility requires that a business be profitable and produce goods and services which are desirable in a society. Monitoring employees’ productivity or customer complaints are examples of activities signifying economic responsibility (Lee & Carroll, 2011).
   - Economic responsibility should exhibit content about a focal organization’s book value, profit, market share, sales, profitability, and/or prospects. This category may also include content related to sales or revenue. If there is any mention of the company’s standing in the market, i.e., market performance, this would be considered economic responsibility (Lee & Carroll, 2011)
   - **EXAMPLE:** US Airways’ bankruptcy filing over the weekend was as well thought out as they come. The carrier, the largest east of the Mississippi, had obtained significant wage concessions from its unions, government loan
guarantees, and new private financing before even landing in bankruptcy. These steps will allow US Airways to continue flying while in bankruptcy, and should help its chances of emerging a stronger carrier (The New York Times, August 13, 2002, p. 18) (Lee & Carroll, 2011).

- **EXAMPLE:** “Positive economic impact we have on communities…” and “…from the job opportunities we provide to the money we save working families; and from the tax revenue we generate to…” (Lee, Fairhurst & Wesley, 2009).

2. Legal responsibility

- **I=yes, 0=no**
- Confines corporations with legal constraints so as to maintain regular social norms (Tang, 2012).
- The legal domain involves the organization following all federal, state and local government laws and regulations (Lee, Fairhurst & Wesley, 2009).
- **EXAMPLE:** ‘A deep commitment to legal compliance and ethical business practices is firmly embedded in JCPenney’s history and company culture …’ (JCPenny) (Lee, Fairhurst & Wesley, 2009).
- Legal responsibility is meeting society’s expectations as established by law. Training programs about sexual harassment and fairness in the workplace represent initiatives aimed at fostering legal responsibility (Lee & Carroll, 2011).
- Legal responsibility should exhibit content about the lawsuits or the following terms, “case,” “suit,” “settlements,” “indictment,” and “court” (Lee & Carroll, 2011).
- **EXAMPLE:** This week the Justice Department began its antitrust case against Visa and MasterCard. The government argues that the Visa and MasterCard networks are too cozy with each other and use their enormous financial power to knock out potential competitors, thereby stunting innovation (The New York Times, June 15, 2000, p. 26) (Lee & Carroll, 2011).
- **EXAMPLE:** The Justice Department will now decide if Ticketmaster’s manipulation of long-term contracts has served to monopolize the market. If so, the law provides plenty of remedies—which would be music to the ears of Pearl Jam’s idolatrous fans (The New York Times, July 8, 1994, p. 26) (Lee & Carroll, 2011).
- **EXAMPLE:** “A deep commitment to legal compliance and ethical business practices is firmly embedded…” (Lee, Fairhurst & Wesley, 2009).

3. Ethical responsibility

- **I=yes, 0=no**
- Represents society’s expectations of corporations. Specifically speaking, it includes equal opportunity, fair payment, environment protection, the protection of consumers’ rights, and so on (Tang, 2012).
- Ethical responsibilities incorporate the standards, norms and expectations that regard what consumers, employees, shareholders and the community think is fair and just to stakeholders’ moral rights (Lee, Fairhurst & Wesley, 2009).
• **EXAMPLE:** ‘We have a responsibility to lead with the highest ethical standards to understand our impacts ... ’ (Hope Depot) (Lee, Fairhurst & Wesley, 2009).

• Ethical responsibilities require that businesses follow the modes of conduct considered to be morally right. Codes of ethics help businesses meet their ethical responsibilities (Lee & Carroll, 2011).

• Ethical responsibility refers to the various moral or ethical problems that can arise in a business setting; and any special duties or obligations that apply to persons who are engaged in commerce. It makes specific judgments about what is right or wrong, which is to say, it makes claims about what ought to be done or what ought not to be done. This category also includes descriptions of dishonesty, corruption, or cover-ups. This may include discussions of antitrust violations, fraud, damage to the environment in violation of environmental legislation, exploitation of labor in violation of labor laws, and failure to maintain a fiduciary responsibility toward shareholders including withholding information from its customers and investors (Lee & Carroll, 2011).

• **EXAMPLE:** Only a person of unblemished virtue can get a job at Wal-Mart—a low-level job, that is, sorting stock, unloading trucks or operating a cash register. A drug test eliminates the chemical miscreants; a detailed ‘personality test’ probes the job applicant’s horror of theft and willingness to turn in an erring co-worker.... Apparently the one rule that need not be slavishly adhered to at Wal-Mart is the federal Fair Labor Standards Act, which requires that employees be paid time and a half if they work more than 40 h in a week. Present and former Wal-Mart employees in 28 states are suing the company for failure to pay overtime (The New York Times, June 30, 2002, p. 15) (Lee & Carroll, 2011).

4. Discretionary responsibility

• $I=\text{yes}$, $\theta=\text{no}$

• Refers to corporations’ voluntary contribution to community welfare beyond economic, legal, and ethical considerations (Tang, 2012).

• Lastly, the philanthropic responsibility of the organization includes the expectation that they will in general be a good corporate citizen, actively engaging in the advancement of their communities (Lee, Fairhurst & Wesley, 2009).

• **EXAMPLE:** ‘We strive to ensure the ongoing health and strengths of our communities by giving and ... volunteer hours in support of education, arts and social service organization ... ’ (Target) (Lee, Fairhurst & Wesley, 2009).

• Finally, philanthropic responsibilities reflect the common desire to see businesses actively involved in the betterment of society beyond their economic, legal, and ethical responsibilities (Lee & Carroll, 2011).

• Philanthropic responsibility includes citizenship, philanthropy, social performance, and environmental performance. Citizenship refers to volunteering in social and community activities. Philanthropy includes ‘the donation or granting of money to various worthy charitable causes.’ Philanthropy exists when the company is involved in educational, artistic, musical, religious, and humanitarian causes. Social performance exhibits
content about the focal organization with reference to certain social concerns, such as the environment, human rights, financial integrity, and other salience ethical issues. Social performance refers to the “recognition and acceptance of the consequences of each action and decision one undertakes,” exhibiting a “caring attitude toward self and others,” “recognition of basic human rights of self and others.” Environmental performance should exhibit content about the focal organization with reference to energy, water, materials, emissions, and waste (Lee & Carroll, 2011).

- **EXAMPLE:** As chairman of the Ford Motor Company, William Clay Ford Jr. said all the right things about the environment. As its new chief executive officer, he’ll have the power to put his words into action. His challenge is to prove that an enlightened executive can turn Ford into a responsible corporate citizen (The New York Times, November 2, 2001, p. 25) (Lee & Carroll, 2011).

- **EXAMPLE:** “…do all we can to improve the lives of our customers and employees through philanthropic and volunteer supported efforts…” and “…believe community involvement extends beyond the boundaries of traditional retail setting.” (Lee, Fairhurst & Wesley, 2009)

5. Other (please write in description below):

VI. Corporate Social Responsibility Topic – There are four key topics: public philanthropy, sustainable development, labor conditions and customers’ rights (Tang 2012).

1. Public philanthropy
   - \( I=\text{yes}, \theta=\text{no} \)
   - Includes education, arts and culture, public health, sports, disaster relief, development and poverty reduction (Tang, 2012).
   - **EXAMPLE** for poverty reduction: ‘Lowe’s added 150 new stores and approximately 23,000 jobs in 2005, helping boost local economies with jobs and tax benefits’ (Lowe’s) (Lee, Fairhurst & Wesley, 2009).
   - **EXAMPLE** for public health: ‘Kohl’s Cares for Kids is a promise of hope for bright, healthier future for kids in our communities. From injury prevention and immunization programs ... ’ (Kohl’s) (Lee, Fairhurst & Wesley, 2009).

   - **Public Philanthropy Sub Categories**
     - 1. Education
     - 2. Arts and Culture
     - 3. Public Health
     - 4. Sports
     - 5. Disaster Relief
     - 6. Development and Poverty Reduction
     - 7. Other
2. Sustainable development
   - \( I_{1}=yes, \ 0=no \)
   - Includes climate change, energy efficiency, and waste reduction and recycling (Hou and Reber, 2011).
   - Environment: Policies that on reducing a company’s overall impact on the environment in terms of climate change, energy efficiency, waste reduction and recycling. These media companies engage in various programs related to the major focus areas of environment policy, such as building high-performance green office buildings, measuring and analyzing energy used, and engaging stakeholders with environmental issues. Comcast Corporation, Time Warner Cable and Cox Enterprises are national cable operators, and their environmental activities focus on energy usage, facilitate management, and using eco-friendly vehicle fleets. In contrast, Walt Disney Company, CBS Corporation, Time Warner and News Corporation not only adopted environmental programs on conserving natural sources and energy, they also have launched programs or used popular programming to engage audiences to take action for the environment. For example, News Corporation explained: News Corporation is beginning to address its own use of energy, but we recognize that our carbon footprint is small compared to the footprint of our audiences. We hope to engage our audiences and enable them to find ways to reduce carbon emissions in their own lives. We believe we can connect meaningfully with audiences on the issue of climate change by entertaining and informing them in ways that inspire and enable them to make changes in their own lives (Hou & Reber, 2011).
   - **EXAMPLE:** ‘We’ve established three aggressive goals in our Sustainability Efforts ... to be supplied 100% by renewable energy ... to create zero waste ... to sell products that sustain our resources and Environment ... ’ (Wal-Mart) (Lee, Fairhurst & Wesley, 2009).
   - Retailers are focused on subjects such as green’, ‘organic’ and ‘natural’ (Lee, Fairhurst & Wesley, 2009).
   - US customers are beginning to request more sustainable products, and they are expecting more sustainable behavior from retailers than ever before. In fact, in the 22nd Annual Holiday Survey of retail spending and trends by Deloitte, almost one in five consumers (18 percent) said they were planning to purchase more ‘eco-friendly’ products than in the past, and 17 percent of shoppers were planning to shop at more ‘green’ retailers (Lee, Fairhurst & Wesley, 2009).

3. Labor conditions
   - \( I_{1}=yes, \ 0=no \)
   - Includes employee welfare, employee development, equal opportunity, health and safety, providing jobs, and employee rights in decision-making (Tang, 2012).
   - Goals of employee relations include fostering safe and respectful workplaces for employees, and improving their working experience. These companies use open communication strategies, diverse benefit packages and training programs to attract and retain employees (Hou & Reber, 2011).
• Diversity: Use corporate training and leadership programs to encourage and develop current employees from diverse backgrounds. They hire future employees who represent diverse backgrounds. CBS Corporation and NBC Universal offer a diversity institute or other training programs, such as acting, writing and directing programs, to identify and develop future media talent. Programming content and audiences also play important roles in media companies’ CSR diversity activities. For example, Walt Disney Company mentioned that their programming serves the needs of children in different age groups, and their shows “incorporate many ethnicities, cultures, religions, geographic locales and physical and developmental differences . . .” (Hou & Reber, 2011).

• Frequent violations in workers’ rights in the apparel industry have received negative publicity from stakeholders and considerable scrutiny over the use of sweatshop labor, forcing the industry to initiate efforts to curb labor abuses and to insure reasonable working conditions by formulating voluntary labor standards and/or “codes of conduct”. A CoC is the most commonly used tool to manage CSR. With the increased importance of CSR, the adoption of CoCs has flourished in last few decades as a primary method to manage and monitor corporations’ CSR practices and to gauge industry response toward labor issues. The use of CoCs has been particularly predominant among U.S. corporations; 58 % of the world’s largest companies have CoCs. These codes cover diverse CSR issues in supply chains, including labor standards and workers’ rights (Mann, Byun & Kim, 2014).

• **EXAMPLE:** ‘Energy education and awareness for both Club and corporate staff is facilitated through a chain wide information exchange programs’ (BJ’s Wholesale Club) (Lee, Fairhurst & Wesley, 2009).

4. Customers’ rights
   • \( I=\text{yes}, \theta=\text{no} \)
   • Includes product quality, product safety, and pricing policies (Lill D. J., Gross C. W. & Peterson R. T., 1986).

   • **EXAMPLE:** Reports of Sanlu Group’s poisonous baby food made food safety a salient issues discussed in journalistic CSR messages (Tang, 2012).

5. Other (please write in description below):

VII. Attributes of a firm’s Twitter account- The attributes of a firm’s Twitter account includes four main attributes: proactive adoption, the standard twitter template, the number of followers and the verified status of the account (Lee, Oh & Kim, 2013; Cozma & Chen, 2013; Soo Jung & Hadley, 2014).

   a. Proactive adoption
   • Adoption of Twitter measured by the date of the account’s first tweet and promptitude of adoption as measured by the time elapsed since Twitter was
developed (Lee, Oh & Kim, 2013).
  o Record the number of years since Twitter account adoption in coding excel document.

b. Standard Twitter template
  • Contains sections with the owner’s name, a short biography, a link to a home page (news outlet website in the correspondents’ case), and a photo (Cozma & Chen, 2013).
    o Owner’s Name: 1=yes, 0=no
    o Short Biography: 1=yes, 0=no
    o Link: 1=yes, 0=no
    o Photo: 1=yes, 0=no

c. Online presence on Twitter
  • Number of followers (Lee, Oh & Kim, 2013).
    • This statistics appear on a user’s profile page (Wasike, 2013).
      o Record number of followers in coding excel document.

d. Verified status
  • Whether the specific account is a “verified” Twitter account. Twitter indicates the authenticity of and account holder with a blue badge on the profile (Soo Jung & Hadley, 2014).
    o 1 = Verified status
    o 0 = No verified status

VIII. Interactivity- Dictated by the unique features of Twitter including the presence of links in internal and external materials, references to other Twitter accounts, number of retweets, number of hashtags and time the tweet was posted (Cozma & Chen, 2013; Boyle & Zuegner, 2013).

  a. Presence of links to internal company related material (Boyle & Zuegner, 2013)
    • Twitter savviness variables included the extent of retweet (RT), reply, embedded hyperlink, and hashtag use (Cozma & Chen, 2013).
      o 1 = Yes, the tweet has links to company related material
      o 0 = No, the tweet does not have links to company related material

  b. Presence of outside links to external sites (Boyle & Zuegner, 2013)
    • Twitter savviness variables included the extent of retweet (RT), reply, embedded hyperlink, and hashtag use (Cozma & Chen, 2013).
      • More tweets, 42 percent, included links to external sites (Cozma & Chen, 2013).
        o 1 = Yes, the tweet has links to outside links to external sites
        o 0 = No, the tweet does not have outside links to external sites

c. Absence of link in the Tweet, meaning there is no URL to company related materials or external sites (Boyle & Zuegner, 2013).
    o 1 = Yes, the tweet has link(s)
    o 0 = No, the tweet does not have link(s)
d. Reference to other Twitter accounts
   • Marked with @ in the tweet
   • The organization’s twitter naming another account or organization in a tweet
     by inserting a handle
     o If yes, record the number of references
     o 0 = No, the tweet does not reference another Twitter account

e. Retweets
   • Retweets means to broadcast a tweet posted by a person to others (like
     forwarding an e-mail). (Boyle & Zuegner, 2013).
   • Twitter savviness variables included the extent of retweet (RT), reply,
     embedded hyperlink, and hashtag use (Cozma & Chen, 2013).
   • An original post repeated and forwarded by another user in order to propagate
     news. Retweets are commonly identified as such in a message or with the
     abbreviation RT (Wasike, 2013).
     o Record number of retweets here in the coding excel document.

e. Hashtags (Boyle & Zuegner, 2013)
   • Hashtags and personalized messages can bring coherence to what can easily
     become a cacophony of voices (Cozma & Chen, 2013).
   • Twitter savviness variables included the extent of retweet (RT), reply,
     embedded hyperlink, and hashtag use (Cozma & Chen, 2013).
   • The hash tag she uses is of course not an accidental reference to Twitter’s
     popular method of defining keywords and trending topics (Wasike, 2013).
   • Keywords are identified by the hash tag (#). Users insert the hash tag before a
     keyword or topic. When clicked, the keyword brings up all tweets that are
     relevant to that keyword or topic (Wasike, 2013).
     o Record number of hashtags in the coding excel document.

f. Picture content in tweet
   • 1 = Yes, the tweet has picture
   • 0 = No, the tweet does not have a picture

g. Video content
   • 1 = Yes, the tweet has picture
   • 0 = No, the tweet does not have a picture