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Giridhar Reddy Bojja
Dakota State University, giridhar.bojja@trojans.dsu.edu

Jun Liu
Dakota State University, jun.liu@dsu.edu

Ronghua Shan
Dakota State University, Ronghua.Shan@dsu.edu

Yong Wang
Dakota State University, yong.wang@dsu.edu

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CEO's Communication Styles and their Effect on Organizational Performance

Completed Research

Giridhar Reddy Bojja

Dakota State University
giridhar.bojja@trojans.dsu.edu

Ronghua Shan

Dakota State University
ronghua.shan@dsu.edu

Jun Liu

Dakota State University
jun.liu@dsu.edu

Yong Wang

Dakota State University
yong.wang@dsu.edu

Abstract

Several studies have highlighted the importance of leadership communication in establishing stakeholder alignment, implementing strategy, and achieving superior organizational performance. In this way, this study investigates the impact of CEO's communication styles on organizational performance using text-mining approach on CEOs tweets from social media. This study aims to examine the relationship between CEO communication styles and organizational performance. The contribution of our study is three-folded: 1) From a methodological standpoint, we present a model to establish a relationship between CEO communication styles on social media and firm performance. Additionally, we apply text mining to identify communication styles of CEOs. 2) From a performance management, we evaluate organizational performance in three types: Operational, Financial, and Reputational. 3) From a management practice and policy perspective, our study results will help organizations evaluate the CEO candidates from a communication style standpoint.

Keywords

CEO, Executives, Communication, Performance, Social Media.

Introduction

The importance of CEOs has been well recognized in strategic management literature. CEOs represent the company as the highest-ranking corporate spokesman responsible for communicating the company's goals (Chen and Chung 2016). A successful CEO not only strengthens public identification with the business and generates a strong corporate reputation, but also builds beneficial relationships with key stakeholders to achieve financial benefits (Tsai and Men 2017). According to upper echelons theory, a CEO's observable and psychological characteristics influence his or her decisions, and thus company performance. CEO communication is one of the major observable and psychological characteristics that can help understand CEO behavior. With the growing need for effective corporate governance and authenticity fueled by social media, the public has tended to recognize greater access to the views and vision of corporate executives through more open interactions. CEOs' public personas have shifted to one that is more personable, sociable, and open to the public than ever before. As a leader of the organization, CEOs have greater responsibility to engage both internal and external stakeholders. Social media is a powerful communication medium, with widespread influence all over the world. CEOs can leverage social media platforms such as Twitter, to interact and engage with various stakeholders. As a key psychological characteristic, CEO communication has been considered as one of the key managerial cognitive abilities that achieve superior business performance (Bakker-Pieper and de Vries 2013). Thus, it is essential to understand the impact of CEO communication styles on organizational performance.

Previous studies on CEO behavior majority looked at the emotionality (Rajah et al. 2011) and personality (Andersen 2006) aspect of CEOs. As per Bakker-Pieper and de Vries (2013) the communication styles are more relevant and were strongly linked to the leader outcomes than emotionality and personality traits. Communication styles are closer to actual leadership styles as they are more flexible and subject to

change as per leader situation and may be exhibited as a mix of more than one style over time. From a comprehensive view, communication comprises multiple dimensions and all dimensions take effect simultaneously when a CEO makes decisions. So, we adopt (Schulz von Thun 1983) communication theory, which is the widely accepted framework for measuring communication types, to capture every aspect of CEO communication styles.

Research in this area requires studies to investigate relationship between CEO communication styles and organizational performance. This problem represents a pertinent gap in Upper Echelons literature. Therefore, the purpose of this study is to present a model to establish a relationship between CEO communication styles on social media and firm performance. Additionally, we apply text mining, which is not commonly used in to identify communication styles of CEO in the literature. The communication styles being the variables of interest in the study are primarily drawn from (Stajner et al. 2021) include Self-Revealing, Action-Seeking, Fact-Oriented, and Information-Seeking. They may also be referred to as psycholinguistic cues representing the style or state respectively (Stajner et al. 2021).

Background and Literature

The CEO is considered the most crucial and critical figure in any organization, as he or she is primarily responsible for determining the company's direction (Finkelstein and Boyd 1998). Communication of a CEO's views to various stakeholders is one of the important ways for a CEO to drive business strategy (Yadav et al. 2007). From a strategic management and upper echelons theory perspective, CEO communication has been considered as one of the key managerial cognitive abilities that achieve superior business performance (Hiebl 2014). Several studies have tried to underpin the relationship between CEO communication and company performance. For instance, the study by (Düren 2016) analyzed leaders' empathic change communication styles and found that it had a signaling effect on team members by improving work efficiency. (Dwivedi et al. 2020) found the communication styles of corporate leaders to be strongly associated with knowledge sharing behaviors, perceived leader performance, contentment with the leader, and team members' commitment to the subordinates. Similarly, (Dasgupta et al. 2013) examined leaders' passive, aggressive, and assertive styles of communication and found a positive relationship with employee satisfaction. Whereas study by (Malhotra 2015) emphasized that CEOs' communication over social media was influencing the reputational outcomes of the company. On the other hand, the study by (obi, 2018) shows transformational leaders use effective communication to leverage operational and financial outcomes. Similarly, a study by (Choudhury et al. 2019) has pointed out that communication matters of CEOs show an influential relationship on managing acquisitions and assets.

Although numerous studies have investigated the effect of CEO communication on organizational performance, but they utilized traditional content analysis and survey assessment techniques to access CEO communication. The studies such as (D'Aveni and MacMillan 1990; Yadav et al. 2007) used content and coding analysis to understand CEO communication. Whereas a study by (Waldman et al. 2001) used a survey-based approach. With the advent of technological improvements in recent years, few studies have adopted more dynamic approaches such as linguistic inquiry word count (LIWC) (Pan et al. 2018), and video-metric methods (Choudhury et al. 2019; Petrenko et al. 2016). A study by (Wang and Chen 2020) used a deep learning-based text mining approach to identify CEO personality traits. A recent study by (Stajner et al. 2021) presented a BERT-LSTM based classification model to classify psycholinguistic textual characteristics for better interaction with users. In this study, we employ the text mining approach presented by (Stajner et al. 2021) to derive the communication styles.

In the highly time-intensive and fast-paced world of today the CEOs are switching from top-down communication platforms to adoption of faster, more efficient, and bottoms-up communications options facilitated by social media. However, the electronic media and more so the social media in recent times is dominated by narrative and drama as opposed to the logical reasoning of the print media, which was the prime communication medium for CEOs until the late 1990s. One of the key skills identified among CEOs is the ability to be communicative, implying the management of the media and reaching out to both internal and external stakeholders (Grafström and Falkman 2017). As per a 2012 IBM survey (Fidelman 2012), it was argued that if a company does not have a social CEO, it is going to be less competitive. In a more recent study, (Men and Tsai 2016) focusing on CEOs on social media and its impacts, served to enhance the theoretical understanding of CEO sociability and the underlying effectual dynamics of public relations outcomes. Based on a quantitative survey of 332 social media users, they showed how the responsive and

assertive communication styles of CEOs on social media affected the followers' social media advocacy for the company. The favorable public advocacy and reputational outcomes for the company, in turn have a positive impact on their business, operational and financial performance outcomes (Gao 2019). Therefore, it is theoretically evident that social media can be leveraged to extract psycholinguistic clues. In our case, we leverage Twitter, one of the popular social media platforms, to extract psycholinguistic clues of CEOs from their posts and thereby identify their communication styles. Further, we believe that text from social media platforms such as Twitter effectively reflects the CEOs' statements or behavior more effectively than traditional mediums such as conference transcripts, newsletters, or interviews since CEOs can express themselves freely on social media.

Theoretical Framework

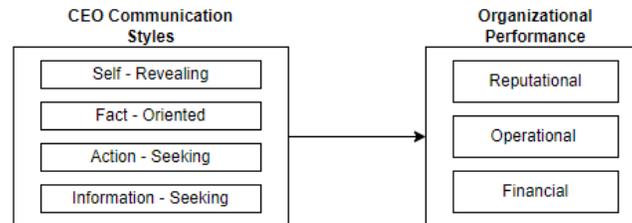


Figure 1. Theoretical Framework

Figure 1. presents the theoretical framework of our study. The overarching goal of our framework is to investigate the impact of CEO communication styles on organizational performance. We consider 4 constructs related to CEO communication styles, including the Self-revealing, Fact-oriented, Action-seeking and Information-seeking. We consider three major types of organizational performances including reputational, operational and financial performance.

Self-Revealing (S-R) style of communication is composed of utterances or statements wherein, the speaker shares personal information or experiences. In social media communication, self-revealing content or posts rely heavily on personal experience and opinion (Symanto 2022). Within the corporate leadership and research, CEOs have been found to adopt this communication style to impact stakeholders with powerful results primarily in reputational terms (Craig and Brennan 2012); and also to drive innovation by inviting collaboration and social exchange (Haasis 2013). As per (McCallaghan et al. 2020) self-revealing practice or style of communication is an important aspect of CEO servant leadership style and connotes transparency and is part of being authentic. CEOs following this style impact the firm stakeholders by becoming role models consistent with their higher purpose vision. Such leaders apply accountability better to continuously monitor performance, and improve systems, and policies, with positive operational and relational outcomes for the firm. Hence, Hypothesis 1: *There is a significant impact of a CEO's self-revealing style on organizational performance variables.*

Fact-oriented style (F-S) is composed of factual and objective statements (Stajner et al. 2021). From a social media perspective, such posts or communication are built employing facts and/or figures to explain their views on something (Symanto, 2022). Within the corporate leadership context, especially in the west, fact-oriented communication has been seen as traditionally vital for CEOs to achieve better negotiation outcomes for self and the firm (Bernard 2009). However, in international negotiation terms, lately it has been recognized that fact-orientation may be coupled with more collaborative self-revealing style may be more effective for performance outcomes (Bernard, 2009). Fact-oriented communication of CEOs has been found effective in ensuring better change-management in the organization, with improved motivational and operational outcomes. Such style is particularly effective in smooth digitization and globalization transitions (Deschamps 2020). Hence, Hypothesis 2: *There is a significant impact of a CEO's fact-oriented style on organizational performance variables.*

Action-seeking style (A-S) of communication consists of direct or indirect requests, suggestions, and recommendations, for action, which may be expected or invited from other people (Stajner et al. 2021). Within a social media textual context, action-seeking communication is understood as writing or posting in a way, which is targeted at triggering the recipients' action through offering advice, suggestions, or making requests (Symanto, 2022). Specifically, within the context of CEO communication, this is a construct conceptually close to task-oriented style of leaders. Such leaders communicate clear targets, plan processes,

and set deadlines for others to follow. Usually, they back it up with some form of payoff. Action-seeking or task-oriented leadership communication has been acknowledged as particularly useful in emergency situations, or at times, when the company must be going through a crisis. In such cases, action seeking communication is synonymous with providing a definitive direction, and thus is likely to improve specific efficiency and productivity outcomes, falling mainly within an operational domain (Groves 2007). Hence, Hypothesis 3: *There is a significant impact of a CEO's action-seeking style on organizational performance variables.*

Information-seeking (I-S) communication style is one, wherein direct or indirect questions are sought from others (Stajner et al. 2021). In social-media communication terms, the information-seeking communication style involves engaging others by posing questions or asking for advice (Symanto, 2022). Within the CEO communication sphere, information-seeking communication largely connotes advice-seeking communication (Ma et al. 2020). Such communication behavior has been found to have important effects on business and operational performance aspects like strategic decision making, management effectiveness, entrepreneurial orientation, innovation, and financial performance. Such CEO communication also likely affects relative competitive firm performance (Heyden et al. 2013). Hence, Hypothesis 4: *There is a significant impact of a CEO's information-seeking style on organizational performance variables.*

Methodology

Data

The overarching sets of constructs identified are proceed with the analysis may broadly be categorized as the communication styles and the organizational performance. The data for the communication styles are captured from Symanto Data insights platform (Symanto 2022) which is an AI – Psychology based deep learning API used to capture psycholinguistic clues from text. To construct our sample of CEOs, we first acquire the list of S&P 500 companies, and then visit the official website of each company. For those publicly owned companies, information about CEOs will be displayed thoroughly and updated timely for information disclosure to stakeholders. Information about CEOs displayed on an official website typically consists of full name of CEOs; CEOs education and working experiences. Thus, the CEO of a company will be easily recognized. We then search the combination of each CEO's name and the corresponding company name on Twitter. Results are filtered by comparing names from social media to official company website, comparing username of CEO twitter handle from multiple sources including company website, personal website, and Wikipedia, comparing education and/or work experiences disclosed on social media with officially described education and/or work experiences. After this time-consuming manual process, 120 CEOs are found on Twitter. Next, we crawl the tweets from CEOs twitter page using Twitter REST API from the day CEO posted their first tweet to the year 2020. To make the communication styles reliable, we only consider CEOs who posted more than 100 tweets. Finally, we obtained 89 CEOs from the 89 distinct companies. Organization performance data was extracted from Compustat database from fiscal year 2020. Combining CEOs communication style scores with organizational performance measures, we finally derived at 83 CEOs from 83 distinct companies. Then, we look for CEOs who has minimum two years' experience as CEO in the same company. Upon reviewing, we are retained with 79 CEOs from 79 distinct companies. So, the final data size of the study is 79.

Measures

In this study, we employ the text mining approach presented by (Stajner et al. 2021) to derive the communication styles based on the four-sided communication model proposed by (Schulz von Thun 1983). (Stajner et al. 2021) presented a BERT-LSTM based classification model to classify psychological textual characteristics using text data collected from variety of sources such as but not limited to Facebook, Twitter, YouTube and Amazon Reviews. Using the collected data, authors recruited three annotators to classify the sample text corpus into communication styles namely, action-seeking, self-revealing, fact-oriented and information-seeking. The authors trained and tested the proposed text mining approach against the manually labeled text corpus and achieved average F1 score of 94% making it reliable to use. Independent variables in this study include four types of communication styles namely, Self-revealing, Fact-oriented, Action-seeking, and Information-Seeking. Communication styles in this study helps us to detect the purpose of text, which provides a lot of valuable information about the CEO. The communication styles are

operationalized as average percentages of communication style score of elements in each of the sample tweets of a given CEO, as determined through the Symanto text-mining application. Thus, Communication styles are the numeric ratio variables measured on a percentage scale.

Table 1 below shows the examples of each of the four communication styles.

Communication Style	Example
Self-Revealing	All we had back then was carpet & a mariachi band. Now, SPACESHIP!!
Fact-Oriented	Due to high levels of demand for FSD Beta, adding “Download Beta” button to Service section of car display in ~10 days
Action-Seeking	Join me at the Bloomberg Technology Summit tomorrow as we explore the opportunities and challenges of #techtransformation .
Information-Seeking	Here are some of my takeaways from #Think2020: https://ibm.co/2ToFZWD . What stood out to you?

Table 1. Examples of communication styles

The dependent variable in this study includes three types of organizational performance namely, Reputational, Operational and Financial performance. Reputational performance is the outcome measure of corporate reputation, which is the collective judgements of observers of a firm, based on the evaluations of financial, social, and environmental impacts attributed to it over time (Barnett et al. 2006). In this study, we employed the Fortune Reputation Index score as a measure of reputational performance. While there are several measures of operational performance, we chose – 1)Assets Turnover – Sales/Assets. Assets represents current assets plus net property, plant and equipment plus other noncurrent assets. Both sales and assets are in millions of dollars. 2)Employee Productivity – Sales/ No. of employees. It measures employee efficiency in the company in generating sales revenue in the organization. Financial performance is a firm’s ability to manage and control its own resources It is a measure of how well a firm use its business assets to generate revenues, and also its financial health over a period. We choose: 1)Return on Equity - Income before extraordinary items (IBE)/ Common Equity. IBE represents the total income of the organization after all expenses. Both IBE and Equity are in millions of dollars., 2)Net Profit Margin - Income before extraordinary items (IBE)/ Sales. IBE represents the total income of the organization after all expenses. Both IBE and Sales are in millions of dollars.

There are several CEO specific factors which may influence their communication. Since, different levels and types of CEO age, gender, and education may affect their communication styles, we control for these variables within the CEO background. Additionally, CEO culture, as per their country of origin may also differently influence their communication, thus, CEO culture is also included as a control variable in the study. CEO cultural index measure is based on Hofstede’s cultural dimensions (Hofstede 2011).

Model specification:

Using all the variables, we drive the following model specification for the estimation,

$$OP = \alpha + \beta_1 * A-S + \beta_2 * F-S + \beta_3 * S-R + \beta_4 * I-S + C_1 * Edu + C_2 * Age + C_3 * Sex + C_4 * CI + e$$

Where OP stands for variables measuring organizational performance, A-S stands for Action-seeking communication style, F-S stands for Fact-oriented communication style, S-R stands for Self-revealing style, and I-S stands for Information-seeking style. We include few control variables – Education (Edu), Age (Age), Sex (Sex), Culture Index (CI). Whereas ‘e’ stands for error term. We fit our models using ordinary least squares estimation(OLS) for cross-sectional data model.

Results

Variable	Mean	Std. Dev	S-R	A-S	F-O	I-S	RP	AT	EP	NPM	ROE
Self-Revealing (S-R)	68.7	14.91	1.000								
Action-Seeking (A-S)	10.4	10.53	-0.036	1.000							
Fact-oriented (F-O)	24	13.57	-0.537	0.486	1.000						
Information-Seeking (I-S)	3.47	3.88	-0.458	0.086	0.050	1.000					
Reputation (R-P)	6.71	0.77	0.046	-0.040	-0.036	0.152	1.000				

Assets Turn Over (AT)	0.68	0.46	0.234	0.018	-0.204	0.262	0.336	1.000
Emp Productivity (EP)	778.66	981.15	0.232	0.788	0.486	-0.163	-0.047	0.072
Net Profit Margin (NPM)	0.14	0.18	-0.155	0.199	-0.019	0.274	0.238	-0.035
Return on Equity (ROE)	0.71	0.77	-0.139	0.299	0.045	0.032	-0.111	-0.022

Table 2. Descriptive Statistics

The descriptive statistics in table 2 shows the mean, standard deviation and the correlation among the dependent and independent variables. The results indicate that there are positive correlations among various independent and dependent variables. In some instances, we observe negative correlations with observed constructs which are helpful in to explaining the nature of relationship between the studied variables.

Variable	Reputational	Operational Performance		Financial Performance	
	Reputational (RP)	Assets Turnover(AT)	Employee Productivity(EP)	NetProfit Margin(NPM)	Return on Equity(ROE)
Self-Revealing (S-R)	0.066***	0.0154***	34.2935***	-0.0036	-0.0201***
Action-Seeking(A-S)	0.099***	-0.0030	51.5619***	0.0065***	0.0340***
Fact-Oriented (F-O)	0.080***	0.0036	37.5065***	-0.0052***	-0.0205***
Information-Seeking (I-S)	0.026	0.0561***	-1.2400	0.0071	-0.0354
Age (Age)	0.027	-0.0064	-5.9086	0.0055	-0.0048
Sex (Sex)	-0.389	-0.2182	-378.25***	0.0320	0.1583
Education (Edu)	0.008	0.0073	0.6743	-0.0147	-0.1078
CultureIndex (CI)	-0.057	0.0152	6.1477	-0.0097	0.0097
Observations	79	79	79	79	79
R-Squared	0.705	0.258	0.817	0.211	0.211

Table 3. Estimation results main models

Table 3 shows the estimated results of the study. As shown in Table 2., the self-revealing style of CEO's are positively associated (0.066, $P < 0.05$) with the reputational performance. The self-revealing style were also positively associated with asset turnover (0.0154, $P < 0.05$), and Employee productivity (34.29, $P < 0.05$) in terms of operational performance. Although the self-revealing style of CEO's were associated with return of equity (-0.0201, $P < 0.05$) but their association was negative. Whereas self-revealing was not associated with net profit margin. Action-seeking style of CEOs was positively associated with reputational (0.099, $P < 0.05$), employee productivity (51.5619, $P < 0.05$), net profit margin (0.0065, $P < 0.05$), and return on equity (0.0340, $P < 0.05$) respectively. However, there is no relationship with assets turnover. Fact-oriented style of CEO's have shown positively significant associated with reputational(0.080, $P < 0.05$) and employee productivity(37.50, $P < 0.05$). Whereas net profit margin(-0.0052, $P < 0.05$) and return on equity(-0.0205, $P < 0.05$) were negatively associated. However, there was no association with asset turnover. In terms of Information-seeking style of CEO's, Assets turnover (0.0561, $P < 0.05$) was only positively significant association found.

Discussion

Self-revealing Style (S-R) has a positive and significant effect on reputational performance (R-P), which implies CEOs' communication content, which connotes transparency, and openness to feedback (Coetzer et al. 2017), enhancing the CEO and firm image. Action seeking style (A-S) has a significant positive effect on reputational performance (R-P), consistent with the transmission of an efficient and productive image through effective communication of firm and individual results (Baker 2021), based mostly on their internal communication. Fact-oriented style (F-O) has a significant positive effect on reputational performance (R-P), consistent with the creation of a more result-oriented and motivational image, especially suitable for

periods of change or crisis (Bernard 2009). Overall, these styles communicate the CEO's expressiveness and preciseness in leadership styles and, thus, positively influence the marketing and branding of the CEO and firm (Riedle 2015).

The CEO communication styles— self-revealing (S-R) and information-seeking (I-S) both have a significantly positive influence on the asset turnover aspect of operational performance. This implies that a CEO can create a favorable image of consensus-based leadership and achieve effective communication outcomes critical for operational goals (Bernard, 2009). Openness to the inflow and outflow of relevant information and insights enables better factual, accessibility, collaborative and target-based leadership (Ma, Kor, & Seidl, 2019) and competitive outcomes (Heyden et al. 2013), and their effective communication to both internal and external stakeholders. The communication styles – Self-revealing style (S-R) has a significantly positive impact on employee productivity implying a more open, accessible, and transparent form of CEO leadership, driving innovation through information collaboration (Coetzer, Bussin, & Geldenhuys, 2017). The action-seeking style (A-S) has a significant and positive impact on employee productivity, which is consistent with a communication style triggering cooperative and collaborative calls to action (Groves 2007). Though internal in focus, such communication also targets external stakeholders from an image enhancement viewpoint and directly and indirectly impacts employee motivation (Anon 2021). Notably, A-S has the greatest impact on employee productivity compared to other styles, owing to the maximization of this dual advantage. Fact-oriented (F-O) style has a significantly positive impact on the employee productivity aspect of operational performance (OP) outcomes consistent with better motivation through clarity, operational direction, accountability, and negotiability at all levels (Bernard, 2009). Overall, the three communication styles represent an expressive and precise communication style and have an impact similar to that on reputational performance. While employee motivation influence has an internal focus, reputational outcomes have a more external focus.

Action-seeking communication style (A-S) has a small but highly significant positive effect on the firm's net profit margin. This implies the impact of communication in the form of requests, advice, or recommendations triggering certain favorable actions from the audience (Symanto, 2022). This effect is consistent with action triggering communication and task-oriented leadership style, which is particularly applicable in pressure situations. This form of communication coming from a CEO can start a series of actions having a bearing on operational effectiveness, eventually impacting financial outcomes (Anon 2021). The fact-oriented style (F-O) has a small and significant but slightly negative effect on the firm's net profit margin. This shows that many CEOs often behave in a transactional manner and are more task-focused and, in the long term, may incur more overheads, which may affect net profit, even though they may be making good revenue (Riedle, 2015). More importantly, both the self-revealing and fact-oriented styles, which represent more of the extraverted form of leadership, are slightly negatively associated with net profitability. Self-revealing has no significant effect, and that fact-oriented style is minuscule though significant. In other words, these are more expressive communication styles that do not affect profitability majorly. Overall, a higher significance of A-S's effect than that of F-O on profitability shows a greater prevalence of the former than the latter, despite small effect size of both, consistent with greater impact on efficiency and financial outcomes (Groves, 2007). The small effect sizes also denote those operational efficiencies may moderate the impact of these styles on financial performance to impact financial measures eventually.

The Action-seeking communication style (A-S) has a small but significant effect on the return on equity (ROE) aspect of the financial performance of a CEO firm. This is consistent with this style's effect on net profitability, and that profitability may be seen as directly associated to return on equity. The action-seeking style triggers a call to action, enhancing efficiency and operational effectiveness (Anon 2021) and affecting profitability. ROE may be seen as profitability per unit equity and thus is receptive to such effects. Self-revealing and fact-oriented styles of CEO communication, representing a more extroverted and communicative approach to leadership (Stajner et al. 2021) have a significant but slightly negative impact on ROE. Since both self-revealing and fact-oriented styles may be conceptually seen as extraversion leadership styles, both affect ROE. If profits are held constant, these styles are, by implication, positively related to equity enhancement. As previous result shows, the net profits are not much affected by these two styles of CEOs (negative though very small effect sizes for both, also only fact-oriented style has a small negative though small association with net profit), but ROE is being affected negatively, which shows a

positive influence of these styles taken together on the equity value of the firms (Harrison and Windeler 2020).

Our results show that the CEO's information-seeking (I-S) communication style does not provide any association with organizational performance outcomes except asset turnover. Although information-seeking is a good characteristic of a CEO, results were not evident enough to enhance organizational performance. This may be attributed to a probable inefficient use of the CEO's information-seeking behavior while using social media (McDonald et al. 2008) and also, it is possible that even though CEO's adept at using the information coming from the stakeholders in response to their I-S behavior, it might not be worthy of incorporating in their decisions as it is unlikely to be strategically relevant.

It should also be noted that this study's findings will provide a holistic view of CEO communication styles on organizational performance. The impact of CEO communication styles on organizational performance can be mediated through internal and external factors such as but not limited to strategic flexibility, team behaviors, technology orientation, and firm culture. The impact of CEO communication styles on organizational performance can be associated with various paths and directions. Thus, organizational performance may differ and occur along various paths. While none of the control variables had a significant effect in the models, iterative modeling showed that they improved model diagnostics, and thus helped uncover more relationships and effect of communication styles on firm performance.

Implications:

The findings of this study can benefit for leaders and organizations in multiple ways: First, it explains how CEOs may effectively manage both internal and external stakeholders using various communication styles in order to achieve the predetermined goals and also improve organizational outcomes. Secondly, this study demonstrates how to use social media data to assess leaders' communication styles without undertaking rigorous laboratory trails or any psychological examinations. Third, our findings provide a platform for organizations to evaluate executive candidates in terms of communication.

Conclusion and Limitations

This study aimed to find the relationship between CEO communication styles and organizational performance. This research answers a critical question in terms of organizational strategy literature, what dimensions of CEO communication styles affect organizational performance and in which direction. The study contributes in multiple ways: (1). We present a model to establish a relationship between CEO communication styles on social media and firm performance. Additionally, we apply text mining, which is not commonly used in to identify communication styles of CEO in the literature. AI-based text mining strategy based on social media data to quantify the CEO's communication styles (2). Theoretically, we contribute to strategic management and upper echelon theory. By far, we are the first to examine CEO communication styles across three types of organizational performance: operational, financial, and reputational (3). In practice, our findings provide a foundation for organizations to assess executive candidates from a communication standpoint.

Our results do have some limitations: 1) We are restricted to a small dataset since only a few CEOs were active on social media, in our case, Twitter. 2) We only used a single social media platform, "Twitter", to crawl the CEO's textual data. Crawling from multiple social media sites such as Facebook, personal blogs will provide holistic data, thus providing rich insights. 3) Our results provide an overall effect of CEO communication styles on organizational performance. Future studies may identify the potential mediating and moderating paths to provide better organization performance.

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