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Using Twitter as a means of coping with emotions and uncontrollable crises

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ABSTRACT

Twitter is a popular social medium that has the capacity to provide real-time information to stakeholders and crisis managers during an organizational crisis. While several studies have described the multiple ways in which Twitter can be used by organizations to communicate with stakeholders, this study explores how stakeholder tweets can be analyzed by organizations to gauge the public's collective sentiment in order to construct messages that facilitate coping during a crisis. Using Jin, Pang, and Cameron's (2007, 2012) Integrated Crisis Mapping Model, this study analyzes 818 tweets obtained immediately after a repeat crisis. Each tweet was analyzed according to the elements of perceived controllability and predictability, as well as the emotions and coping strategies used on behalf of the organization's external stakeholders. The findings of this study suggest ways in which organizations can provide support and clarity while trying to prevent reputational damage during a highly emotional crisis.

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1. Introduction

Shots rang out on Virginia Tech's campus as a student from a neighboring university shot and killed a campus police officer before fleeing the scene (Rothaker, 2011). The entire campus was placed on lockdown as officers attempted to locate the assailant. This incident prompted memories of a similar tragedy that occurred only four years earlier when the university experienced one of the worst mass shootings in American history (Hauser & O'Conner, 2007). This most recent crisis required administrators to implement the university's crisis management plan to protect the campus; all while an outpour of tweets emerged that expressed various emotions regarding the university's ill-fated, yet all too familiar circumstances.

The scope of this study is to examine the social media chatter that occurs during an organizational crisis, specifically in terms of the negative emotions that are commonly expressed and communicated by an organization's stakeholders on Twitter. This emotion-filled dialogue deserves scholarly attention, as it is highly influential to the way the media and other external stakeholders view and discuss the crisis with others. Practitioners can utilize data obtained from such an analysis to help determine the appropriate organizational responses that facilitate coping among stakeholders, which according to Coombs (2007c), meets important ethical responsibilities that must be considered by the organization when responding to a crisis.

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Several scholars have identified the important role that emotions serve before, during and after an organizational crisis (Carlson & Dacey, 2013; Coombs & Holladay, 2005; Liu, Austin, & Jin, 2011). One particular area of research, the integrated crisis mapping (ICM) model, has been developed to provide researchers and practitioners with a framework that can be used to identify the various emotions stakeholders experience during a crisis, as well as the coping strategies they use to deal with these emotions (Jin, Pang, & Cameron, 2007; Jin, Pang, & Cameron, 2012). While the ICM model has been tested and applied in various crisis-related settings, there is a gap in the literature on whether the model can be applied to examine the emotions displayed through social media during an organizational crisis.

Using Jin et al.'s (2007, 2012) ICM model as a framework, this study analyzed 818 tweets obtained during and immediately after an organizational crisis that occurred only four years after the same organization experienced a similar gun-related tragedy. The tweets that comprised this sample were coded according to the manner in which they expressed the perceived predictability and controllability of the crisis and the emotions and coping strategies used on behalf of the organization's external stakeholders. Findings from this study are used to suggest ways in which organizations can facilitate coping and provide support and clarity during a time when stakeholders are in a highly emotional state. The study also discusses the practical and moral implications involved with using the ICM model in the realm of social media.

2. Literature review

2.1. Crisis management

During the last decade, an increasing number of tragic incidents on university campuses have forced all universities to scrutinize their own levels of preparation for a potential crisis. An organizational crisis is an uncommon and random event that can damage an organization's reputation and threaten the safety of its employees and surrounding community (Coombs, 2007a; Mitroff & Anagnos, 2000; Pearson & Clair, 1998). Heath (2006) suggested that an organizational crisis is "a risk manifested," which implies that crises often stem from risks and issues that were ignored by the organization (p. 245). This definition implies that practitioners need to have proactive environmental assessment measures in place that can effectively identify potential risks before they become crises.

Seeger, Sellnow, and Ulmer (1998) claimed that crises prompt "high levels of uncertainty and threat or perceived threat to an organization's high priority goals" (p. 233). Organizations can face multiple types of crises that include rumors, challenges or confrontations by disgruntled stakeholders, organizational misdeeds, either with or without injuries, as well as natural disasters, disease outbreaks, and intentional events like workplace violence (Coombs, 1999; Ulmer, Sellnow, & Seeger, 2010). For universities and organizations alike, ensuring organizational survival after a crisis requires actions and communication that meet the needs and expectations of their stakeholders.

Fearn-Banks (2010) labeled crisis management as "strategic planning to prevent and respond during a crisis or negative occurrence, a process that removes some of the risk and uncertainty and allows the organization to be in greater control of its destiny" (p. 480). According to Boin and Lagadec (2000), members of the public often perceive the success or failure of crisis management efforts according to their ability to reinvent or confirm existing values and beliefs. Thus, successful crisis management efforts restore normal order and meet the value-driven expectations of stakeholders – both of which are outcomes that can be achieved with substantive action and the effective use of traditional public relations tactics and social media.

2.2. Social media and crisis management

González-Herrero and Smith (2008) claimed that radical changes triggered by the emergence of online technologies have necessitated a novel approach to crisis management that addresses the new digital environment in which public relations and crisis communication is now practiced. This new model combines the stages of issues management, planning-prevention, crisis and post crisis phases to establish a vigilant and technologically-focused approach to monitoring the organization's external virtual and physical environments. Their approach also acknowledges the needs for crisis managers to design prompt responses that are tailored for multiple online platforms and evaluate the applicability of existing crisis management frameworks to the realm of online technologies and social media.

The modern landscape in which public relations is practiced is comprised of constituencies of avid social media users, most of whom have expectations for instantaneous crisis-related information (Stephens & Malone, 2009). Social media have also afforded these constituencies the power to challenge organizations in an unrestricted and highly visible manner (Argenti, 2006). Liu et al. (2011) argued that the individuals who use social media during a crisis can be categorized as *creators* of crisis communication content; *followers*, who obtain information from the creators and disseminate it to others; or *inactives*, who consume crisis information indirectly through word of mouth or traditional media outlets that obtained crisis-related information directly from creators.

According to Veil, Buehner, and Palenchar (2011), social media allows an organization's constituents "to become part of the actual crisis communication response," which consequently indicates the importance of actively monitoring and understanding public sentiment and concerns to stop invalid rumors, establish favorable relationships, and maintain the organization's credibility (p. 110). Similarly, Coombs and Holladay (2014) claimed that an organization's stakeholders often act as crisis managers and monitoring their concerns provides opportunities for practitioners to evaluate the effectiveness

of their crisis communication efforts. Social media allows active communities to form online, which then increases the responsibility of organizations to manage a crisis effectively (Coombs, 2012). Social media users are "active information-seekers" who wish to receive and disseminate information instantaneously (Stephens & Malone, 2009). Furthermore, many consider social media controlled news sources that are conducive to individual expression and protest (Valenzuela, 2013).

Organizations must adhere to various ethical responsibilities when responding to a crisis (Coombs, 2007c). Coombs claimed that these requirements extend beyond protecting reputation to focus on providing instructive information that protects public safety, followed by adaptive information that helps stakeholders cope with the emotional stress that results from experiencing a crisis. Furthermore, he suggests that helping stakeholders cope with the emotions caused by a crisis is a moral obligation.

According to Coombs (2007b), "[q]uickness and accuracy play an important role in public safety..." [however,] "speed is meaningless if the information is wrong ... [as] inaccurate information can increase rather than decrease the threat to public safety" (p. 3). Thus, the hesitation to jump to conclusions or report inaccurate information can stall an organization from quickly responding to a crisis. Conversely, organizational stakeholders do not hold the same amount of responsibility; therefore they may contribute information more quickly than an organization.

Results from the Pew Research Center's Internet and American Life Project Winter 2012 Tracking Survey reveal that Twitter is becoming increasingly popular among young, college-aged adults (Smith & Brenner, 2012). This finding is particularly important in the context of crisis communication, especially at universities where college-aged adults are viewed as primary stakeholders. Similarly, Wright and Hinson (2011) found that Twitter usage also continues to increase among organizations and practitioners. Smith (2010) argued, "Twitter is more than a message engine – it is a platform for social connection and promotion" (p. 333). It also functions as an interactive social media platform that is often used by stakeholders for emotional and community support (Saffer, Sommerfeldt, & Taylor, 2013; Stephens & Malone, 2009).

In the context of crisis communication, Twitter users share or retweet information based on their evaluations of the organization's response to the crisis (Schultz, Utz, & Göritz, 2011). Schultz et al. (2011) claimed that crisis-related messages disseminated via Twitter often lead "to less negative crisis reactions than blogs and newspaper articles," thereby supporting the argument that the "medium matters more than the [actual] message" in determining stakeholder reactions and perceptions of the organization (p. 25). Brown and Billings (2013) analyzed tweets from university sports fans during a sports-related crisis and found that Twitter "gives highly identified fans a medium to express the connection they feel with their chosen team and allows them to defend their team when a crisis arises" (p. 79).

3. Theoretical framework and research questions

Using extant research on emotions and cognitive appraisal theory (Lazarus, 1991) and coping (Duhachek, 2005), the integrated crisis mapping (ICM) model reveals how practitioners can generate effective crisis messages based on identifying the dominant emotions experienced by their organization's primary publics and the coping strategies they employ to deal with these emotions. Thus, the ICM model is regarded as "a publics-based, emotion-driven perspective where the publics' responses to different crises are mapped [according to] the organization's engagement (i.e. level of responsibility for the crisis) and [the] primary publics' coping strategy" (Jin et al., 2012, p. 266).

3.1. Emotions and emotional appraisal

Using foundational research on cognitive appraisal theory (Lazarus, 1991), the ICM model assumes that stakeholders make two types of appraisals during stressful situations – primary appraisals, which are evaluations of the goal-relevance and goal congruence between the organization and its publics, and secondary appraisals, which are assessments of all possible options they can use to cope with the situation. According to Lazarus (1991), events that are relevant to individuals' personal goals generate emotions that are either positive or negative, depending on whether the goals are congruent with their own personal values. Therefore, in a crisis situation, an organization's response strategy should correspond with the emotional state of the organization's stakeholders to minimize negative emotions as much as possible.

The ICM model applies Lazarus' (1991) research to demonstrate that both appraisal types, primary and secondary, result in stakeholders experiencing a variety of emotions based on their perceptions of the crisis (Jin et al., 2007, 2012). The ICM model indicates that stakeholders experience *anger* when faced with a difficult situation that has a direct effect on their well-being and *fright* when the crisis is perceived as life-threatening and causes high levels of uncertainty related to their perceptions of the organization's ability to deal with the impending situation (Jin et al., 2012). Furthermore, Jin et al. (2012) claimed that stakeholders experience *anxiety* when a crisis is viewed as an instantaneous and devastating threat and *sadness* when a crisis is viewed as causing irreversible damage to self esteem, moral values, ideals, people and their overall well being.

3.2. Predictability and controllability

Jin (2009) claimed that the levels at which stakeholders experience various emotions (i.e. anger, sadness, fright and anxiety) are dependent on their perceptions of the crisis in terms of its predictability and controllability. She defined *predictability* as "indicating a level of certainty" and *controllability* as the "public's self-efficacy to take control of the crisis situation"

Table 1
Emotions experienced during different levels of crisis predictability and control.

Stakeholder emotion	Crisis predictability	Crisis controllability
Anger	High	High
Fright	Low	Low
Sadness	High	Low

Note. According to Jin et al. (2012) anxiety is the default emotion during a crisis.

(p. 301). Therefore, she suggested, "publics are likely to experience *anger* predominantly in controllable and predictable crises," *sadness* "when the crisis is perceived as predictable, yet beyond the publics' control," and *fright* "when the crisis situation is unpredictable and out of the publics' control" (p. 312). Citing her earlier research (Jin et al., 2007; Jin, Pang, & Cameron, 2008), she also claimed that anxiety "tends to be the 'default' emotion that all publics experience in a crisis situation" (p. 312). Table 1 lists the specific emotions experienced during different levels of crisis predictability and controllability.

3.3. Coping strategies

The ICM model asserts that stakeholders respond to emotions through the use of cognitive and emotional coping strategies, depending on the perceived predictability and controllability of the crisis (Jin, 2009). For example, an organization's publics use *emotional support and emotional venting* when they experience sadness or fright, regardless of whether they perceive the crisis as being predictable and *instrumental support* when they experience sadness during crises that they view as predictable, yet out of the organization's control (Jin, 2009). Table 2 lists and defines the coping strategies used by stakeholders during a crisis.

Based on the review of literature above, the researchers sought to apply the components of the ICM model to analyze the social media discourse during a real-time crisis. The following research questions were posited:

RQ1 What is the perceived level of predictability of the crisis as expressed in the stakeholder tweets?
RQ2: What is the perceived level of controllability of the crisis as expressed in the stakeholder tweets?
RQ3: What types of emotions do the organization's external stakeholders express through their tweets during the crisis?
RQ4: What types of coping strategies do an organization's external stakeholders express through their tweets during the crisis?

4. Methodology

The current study used the quantitative content analysis method to examine the tweets disseminated by an organization's stakeholders over a one-day period from December 9, 2011 to December 10, 2011. The basic sampling unit was individual tweets that were collected in real time immediately after the organizational crisis at Virginia Tech using the hashtag #VaTech as a search term. The researchers copied the tweets and pasted them directly into a Word document. In total, 818 tweets were collected and 791 were fully coded in the final coding procedure.

Kolbe and Burnett (1991) defined content analysis as "an observational research method that is used to systematically evaluate the symbolic content of all forms of recorded communication. . . [all of which] can be analyzed at many levels (image, word, roles, etc.), thereby creating a realm of research opportunities" (p. 243). Furthermore, they claimed that the content analysis method is capable of serving as a "companion research method" that can enhance the validity of extant research. Researchers using content analysis code either manifest (i.e. explicit) content or latent (i.e. implicit) content, which requires subjective interpretations on behalf of the coders (Lombard, Snyder-Duch, & Bracken, 2002). The latent content approach was

Table 2
Coping strategies used in the ICM model.

Coping strategy	Coping type	Definition
Rational thinking	Cognitive	"Deliberate attempts to prevent subjective emotions from directing behavior"
Positive thinking	Cognitive	"Attempts to psychologically reconstrue a source of stress in order to make it more tolerable; Efforts to reconstrue stressors so that they are less damaging"
Avoidance	Cognitive	"Attempts to create psychic or physical distance between oneself and a stressor; Distracting [oneself] by doing other things"
Denial	Cognitive	"Attempts to completely close off oneself mentally from a source of stress; Complete abnegation of stressors so their negative effects are reduced"
Emotional support seeking	Emotional	"Attempts to marshal social resources to improve one's emotional and/or mental state; Seeking out others for comfort
Emotional venting	Emotional	"Attempts to recognize and express one's emotions"
Instrumental support seeking	Emotional	"Attempts to marshal social resources to take action toward ameliorating a stressor; Focused on bringing about objective change and [trying] to get advice from someone about what to do"

Duhachek (2005), pp. 44–46.

incorporated in this study by using the theoretical foundation of the ICM model and its operational definitions of variables to make decisions and categorize patterns among the content (Potter & Levine-Donnerstein, 1999).

4.1. Coding procedures

Trained graduate coders quantitatively analyzed each tweet according to each user's Twitter handle and whether it was an original tweet, modified tweet or retweet. In an attempt to measure the impact of the crisis on stakeholders' communication, Jin et al.'s (2007, 2012) integrated crisis mapping approach was adapted for Twitter analysis. Each tweet was examined according to the manner in which it expressed the perceived controllability (high, neutral, low) and predictability of the crisis (high, neutral, low). In order to adapt the theoretical variables to the method and content examined in this study, the researchers operationalized controllability according to the stakeholders' perceptions of the organization's ability to control the crisis. Similarly, predictability was operationalized as the stakeholders' perceptions of the organization's ability to predict the crisis. After a pretest was conducted, minor revisions were made and the code sheet was deemed suitable for implementation.

The coders used operational definitions of anger, fright, anxiety and sadness (Lazarus, 1991; Jin, 2009; Jin et al., 2007, 2012) to categorize each tweet according to the emotions being expressed by the user. Next, the tweets were further coded according to the coping strategies (Duhachek, 2005; Jin, 2009) expressed in each tweet. These coping strategies included active coping, rational thinking, positive thinking, emotional support, instrumental support, emotional venting, avoidance and denial.

To test for inter-coder reliability, the two coders coded 80 randomly selected articles (10% of the total sample). This preliminary coding procedure resulted in Krippendorf reliability coefficients that ranged from .82 for emotions, .89 for coping strategies and .89 for predictability and .87 for controllability (Hayes & Krippendorff, 2007).

5. Results

Of the 791 tweets coded, the majority (78%, $n = 617$) were original tweets and the remainder of the tweets were almost equally split between retweets (12%, $n = 95$) and modified tweets (10%, $n = 79$). The first research question investigated whether the organization's stakeholders expressed an element of organizational predictability for this crisis situation. The tweets were primarily neutral (61%, $n = 481$) on the organization's ability to predict this crisis. A much smaller number of stakeholders expressed a high level of predictability (17%, $n = 133$) and low predictability (2%, $n = 14$). Approximately 21% ($n = 163$) tweets were coded as indicating no perceived levels of predictability since they only provided links to articles in other media outlets and contained no original content on behalf of the stakeholder.

The second research question was focused on determining the level of perceived controllability stakeholders felt the organization had in this crisis situation. The majority of tweets were coded as (42%, $n = 336$) neutral; however, more than a third (37%, $n = 295$) expressed how the organization had very little or low controllability. A small number of tweets (5%, $n = 36$) expressed how the organization had high controllability of the situation and 16% ($n = 124$) of the tweets were coded as indicating no perceived levels of controllability since they only provided links to articles in other media outlets and contained no original content on behalf of the stakeholder.

The third research question asked about the type of emotions the organization's external stakeholders exhibited through their tweets. The most frequently displayed emotion, anger, was expressed in 40% of the tweets ($n = 316$) while fright was displayed in 25% of the tweets ($n = 198$). The remaining tweets expressed sadness (11%, $n = 87$), anxiety (10%, $n = 79$), or no emotion (14%, $n = 111$).

The final research question intended to identify the coping strategies utilized by the external stakeholders during and after the crisis situation. The results were predominantly mixed between three strategies: instrumental support seeking (31%, $n = 245$), emotional venting (25%, $n = 198$) or emotional support seeking (16%, $n = 127$). Other coping strategies displayed include: action (6%, $n = 47$), avoidance (2%, $n = 16$), rational thinking (2%, $n = 16$), denial (1%, $n = 8$) and positive thinking (.9%, $n = 7$). A total of 127 (16%) tweets displayed no coping strategy.

6. Discussion

The crisis examined in this study provided the authors with a real-time situation in which stakeholders used Twitter to express an array of emotions. Rather than focusing on the tweets disseminated by the organization, this study focused on the online dialogue between an organization's external stakeholders, viewing them through the lens of Liu, Jin, and Austin's (2011) social media user typology as *creators* of crisis communication content who directly influence multiple *followers* – most of whom, in turn, continue to disseminate this content to others. In real-time crises, external stakeholders can use social media to generate content and respond on behalf of organizational communities when there is little information being provided by the organization. These *creators* ultimately influence the emotions experienced by their *followers* and, in turn, influence the view of the organization and its crisis communication efforts. This unique transmission of information can cause high levels of uncertainty and inaccuracy, both of which often result in negative emotions that are quickly spread across a community. This occurrence has the potential to add yet another layer to an already complicated issue for the organization attempting to manage a crisis.

Using the operational definitions provided in the ICM model, this analysis revealed some important information regarding the manner in which Twitter users viewed the crisis in terms of predictability and controllability. Even though the ICM model indicates that sadness is the typical dominant emotional response from stakeholders during a crisis that is perceived to be highly predictable and uncontrollable, this study found that anger was the dominant emotion displayed by the organization's stakeholders. It is quite probable that stakeholders in this crisis situation were already primed for a more intensive emotional response because of the organization's crisis history. Further analysis of these tweets revealed that these stakeholders were either quite aware of the previous shooting at Virginia Tech or had actual experiences in that crisis. The ICM model does not consider previous crisis history in its emotional designation and this finding may contribute new dimensions to the existing model.

Findings from the study revealed that anxiety was only expressed in a small number of the tweets, which also conflicts with Jin et al.'s (2007, 2008) argument that anxiety "tends to be the 'default' emotion that all publics experience in a crisis situation" (p. 312). This finding provides further insight into using the ICM model to analyze emotions expressed on Twitter. For example, it can be argued that the organizational stakeholders examined in the study may have *experienced* anxiety as a result of the crisis, however, they failed to *express* this emotion on Twitter. The difference between emotions *experienced* by stakeholders and emotions *expressed* by stakeholders may need to be further examined during various crisis situations. Furthermore, future research should continue to examine how stakeholders express specific emotions to others while adhering to Twitter's 140-character limit. Findings from such research would allow practitioners to gain a better understanding of how to interpret the emotions displayed by their stakeholders on social media.

The stakeholders examined in this study attempted to use Twitter to cope with the impending crisis. This finding fits with extant literature that indicates how Twitter can be used to facilitate social connections (Smith, 2010) and build emotional and community support (Saffer et al., 2013; Stephens & Malone, 2009). Instrumental support seeking was the most frequent coping strategy expressed by stakeholders as many of their tweets asked others for advice about how to deal with the impending crisis. For practitioners, this finding suggests a need on behalf of stakeholders to receive instructive information from the organization. This suggestion is directly related to the uncertainty posed by the crisis and reaffirms the idea that external stakeholders serve as active publics in a crisis situation. While a crisis is still occurring, these stakeholders have the ability to mobilize, provide support, and gain information through the use of online technologies.

The data obtained from this study place a greater emphasis on Coombs' (2007c) argument that crisis managers must provide adaptive information for stakeholders during a crisis. Even though providing instructive information should be a top priority, incorporating the use of adaptive information that facilitates coping and attempts to alleviate negative emotions demonstrates goodwill and caring on behalf of the organization. Using Twitter to provide this information also allows the organization to demonstrate its willingness to take control of the situation and serve the needs of its stakeholders. Just as Boin and Lagadec (2000) noted, this type of communication is extremely important as it can serve the functions of restoring normalcy and reconfirming important values.

6.1. Implications

This study reveals that an organization's external stakeholders use Twitter to express certain emotions, as well as their perceptions of the organization involved in the crisis. This information is viewed by multiple followers and often sets the emotional tone for the crisis, especially in circumstances where there is a lack of information from the organization and higher levels of uncertainty. Practitioners can use this immediate influx of information to gauge the ethical implications of their crisis response strategy. Research has shown that the public relations practitioner is often an active participant in the ethical decision making process for an organization (Bowen, 2005). In-depth analysis of the emotional state of stakeholders during a crisis situation can significantly help prepare the practitioner to respond appropriately in the mutual ethical interests of the organization and its stakeholders.

Even though the ICM model can be used to serve the reputational interests of organizations, it can also be used to serve the ethical interests of an organization's stakeholders by suggesting ways in which practitioners can enhance coping among their stakeholders – an outcome that Coombs (2007c) labels as an ethical obligation for any organization during a crisis. As González-Herrero and Smith (2008) suggested, modern organizations must take advantage of Twitter's ability to serve as an interactive medium that can be used for emotional and community support. When considering the ethical implications of using the ICM model, it is important to note that coping, an operational variable in the model, is a process initiated by stakeholders who wish to reduce negative emotions and levels of stress (Duhachek, 2005). Thus, when applied to the context of crisis communication, coping should be viewed as an expected reaction from stakeholders during a crisis and, more importantly, a need on their behalf that should be met with the appropriate organizational responses.

Crisis managers using the ICM model to operationalize the emotions and coping strategies expressed by their stakeholders must further apply the model to determine the appropriate responses for their organizations. For example, the stakeholders examined in this study demonstrated the need for instrumental support seeking, an emotional coping type in the ICM model that translates into taking specific action to reduce the threat posed by the crisis, as well as disseminating messages that inform stakeholders about these actions and what they should do to remain safe. Conversely, stakeholders displaying positive thinking, a cognitive coping strategy in the ICM model, can be addressed with messages that help them make sense of the crisis such as a press conference that provides a chronological description of events or discusses any known information about the cause or reason for the crisis.

Many stakeholders who are actively communicating on Twitter may be more closely linked with the organization involved with the crisis and therefore differ from the general public. It is, however, important to note that these individuals are capable of influencing members of the general public, all of whom may rely on Twitter to obtain information about the crisis. In other words, electronic word of mouth is capable of spreading negative emotions across geographic boundaries very quickly. The authors would like to suggest that effective crisis management efforts must incorporate elements of social media monitoring and be responsive to trends identified during such analysis.

6.2. Limitations

One limitation of this study is the researchers were unable to identify specific information about each stakeholder. The only information that could be analyzed or coded from the tweets are pictures and short bios provided by the users on their main Twitter pages. Therefore, this limitation provides challenges for researchers and practitioners attempting to categorize social media users unless they are willing to provide more identifying information. Furthermore, a second limitation in the study is data gathered in real-time, like those analyzed in this study, pose a risk of rumor and mistaken facts. In a crisis situation, an organization may hesitate to provide information as they sort out the misinformation; however, external stakeholders do not hold the same accountability so erroneous information can sometimes overshadow the actual crisis events in the moments following a crisis.

7. Conclusion

It is critical for an organization to respond to the needs of its stakeholders during any crisis situation. This study provides some evidence that external stakeholders who are users of social media are an excellent resource that can be gauged to identify the informational and emotional needs of an organization's publics. The elements of the ICM model confirm that crisis managers need to understand and assess the emotional state of their stakeholders when responding to a crisis. Furthermore, through the use of social media, external stakeholders are more empowered than ever before to act as voices for the organization and its publics. These tools should be incorporated into any crisis managers' evaluation for a successful crisis response strategy that meets the emotional needs of an organization's publics.

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