

Impact of Message Convergence on Organizational Reputation: An Examination of Organizational Crisis Communication on Facebook

Lan Ye¹ · Eyun-Jung Ki²

Published online: 20 November 2017
© Macmillan Publishers Ltd & Reputation Institute 2017

Abstract Studies on organizational crisis communication via social media have mainly focused on the effects of messages from one source, organizations. Little is known about the interaction effects of multiple messages from multiple sources through social media on audiences' perceptions of organizational reputation. Guided by the Message Convergence Framework, this study used a 2×2 , between-subjects experiment ($N = 165$) to explore the impact of crisis communication strategies and message convergence on Facebook on audiences' perceived organizational reputation in a preventable crisis. The results suggest that organizational reputation was affected by the consistency between the organization's Facebook posts and followers' comments, and the effects were moderated by the perceived credibility of the comments by Facebook followers. The results also revealed that unlike pre-existing positive attitudes toward an organization, which were negatively affected by inconsistent information on Facebook, pre-existing negative attitudes did not change significantly because of the information on Facebook. The theoretical and practical implications of this study are then discussed.

Keywords Crisis communication · Organizational reputation · Social media · User-generated comments · Message convergence framework

Introduction

Crisis situations usually create high information needs. To resolve the uncertainty inherent in crisis situations and to reduce anxiety associated with this uncertainty, people do not simply rely on one source of information. Instead, they actively seek out multiple sources that aid in creating a comprehensive understanding of the crisis (Anthony et al. 2013). Social media sites such as Facebook are perceived as viable sources of crisis-related information (Anthony et al. 2013).

On social media, people are exposed to information generated by both the organization-in-crisis and the public using social media. On one hand, social media allow organizations to directly and efficiently disseminate information to reduce stakeholders' uncertainty about crises. On the other hand, social media encourage users to express their opinions. Therefore, ideas about an organization may come from any person and from any direction (Hayes et al. 2013). Although organizations have started to incorporate social media into crisis communication, due to the unknown effects of convergence of various sources of information on social media on organizational reputation, they primarily use social media for issue management and monitoring (Wigley and Zhang 2011). Most organizations are hesitant about using social media as a crisis management tool, or discussing crises on their social media sites (Coombs 2012).

Studies on the use of social media in organizational crisis communication have often examined the effects of

✉ Lan Ye
lan.ye@cortland.edu
Eyun-Jung Ki
ki@apr.ua.edu

¹ Communication Studies Department, State University of New York at Cortland, Cortland, NY, USA

² Department of Advertising and Public Relations, College of Communication and Information Sciences, The University of Alabama, Tuscaloosa, AL, USA



messages from one source: the organizations themselves (e.g., Kerkhof 2011; Muralidharan et al. 2011). Little is known about how people's perceptions of an organization are influenced by multiple messages communicated simultaneously on social media during an actual crisis with strong attribution of crisis responsibility. Therefore, this study seeks to fill the gap with an experiment in which British Petroleum's (BP)¹ responses to the Deepwater Horizon oil spill on Facebook and its followers' comments were used as the stimuli. The findings of this study will help critically evaluate the opportunities for and threats to organizational reputation presented by Facebook. The findings will also provide recommendations for use of Facebook in crisis communication.

Literature Review

Organizational Reputation in Crisis Communication

Reputation is a critical but intangible asset to any organization. Previous studies have identified several elements of organizational reputation, for example, the outcomes of an organization's past actions (Weigelt and Camerer 1988), results from direct and indirect experiences and information received about an organization (Fombrun and Shanley 1990; Yoon et al. 1993), and the extent to which an organization is seen as good, reliable, and trustworthy (Roberts and Dowling 2002). Attempting to capture the common elements of organizational reputation, Fombrun et al. (2000) define organizational reputation as a collective representation of an organization's past behavior and outcomes that depicts the organization's ability to deliver valued results to multiple stakeholders.

A crisis is a major threat to an organization's reputation (Coombs 2012). Therefore, whether the damaged reputation can recover is the essential feature of effective crisis response (Coombs 2012). Organizations strive for a favorable reputation, but whether an organization is rewarded for its efforts largely depends on whether its stakeholders form an impression of it that the organization desires. However, stakeholders' perceptions of an organization are not necessarily consistent with what the organization presents. One explanation for this divergence is that, other than the signals that organizations send via communications and strategic actions (Prabhu and Stewart 2001; van Riel 2012), stakeholders receive signals from other sources, such as newspapers, television, offline word-of-mouth, personal experience, and social media etc. (Fan et al. 2013; Mason 2014). All these influence perceptions that stakeholders have of organizations, and in turn, their reputations

(Fombrun et al. 2015). In this sense, during crisis communication on Facebook, an organization's reputation can be influenced by the interaction of messages from diverse sources such as the organization's Facebook posts and Facebook followers' comments.

Crisis Communication Strategies

The selection of crisis communication strategies should be based on crisis situations such as the crisis types and the severity of damage (Coombs 2012). Coombs (2012) groups crisis types into three clusters, and orders them based on an ascending level of crisis responsibility: a victim cluster (e.g., natural disaster), an accidental cluster (e.g., technical-error accidents), and a preventable cluster (e.g., human-error accidents). The victim cluster produces little attribution of crisis responsibility, and the preventable cluster produces the strongest attribution of crisis responsibility (Coombs 2012). Crisis responsibility is also influenced by the severity of the damage. The more damage a crisis causes, the more responsibility people tend to attribute to the organization-in-crisis (Coombs 2006).

Coombs (1998) placed the seven most commonly used crisis communication strategies on a continuum from defensive to accommodative in the following order: attacking accuser, denial, excuse, justification, ingratiation, corrective actions, and apology. Coombs (2012) suggests that organizations should identify crisis communication strategies that are appropriate to different crisis situations. As the reputational damage of a crisis intensifies, stakeholders' perceptions of crisis responsibility strengthen along with a need for more accommodative strategies (Coombs 2012). Therefore, if an organization's crisis responsibility is low (e.g., a victim crisis), defensive strategies such as denial may be effective. If an organization's crisis responsibility is high (e.g., a preventable crisis such as BP oil spill), accommodative strategies such as an apology is what the stakeholders expect, therefore, it would be more likely to generate positive perceptions. In the latter situation, the more defensive an organization's crisis response is, the more likely that stakeholders will hold more negative opinions of the organization. This study focuses on the use of Facebook in preventable crises. Therefore, this study posits:

Hypothesis 1 (H1) People are more likely to perceive an organization positively when the organization uses accommodative communication strategies on Facebook than when it uses defensive communication strategies.

Message Convergence Framework

The Message Convergence Framework (MCF) posits that during crises, stakeholders tend to make meaning out of the

¹ BP refers to BP America throughout.



multiple and often competing messages (Herovic et al. 2014). MCF acknowledges that people are not solely affected by only one message from one source, but instead, by the interaction of multiple messages from various sources. MCF was introduced in Perelman and Olbrechts-Tyteca's (1969) work exploring pluralistic meanings from various message sources. Perelman and Olbrechts-Tyteca (1969) observed that arguments on a given topic interact at multiple levels: between various arguments from separate sources; between the arguments and the overall argumentative situation; between the arguments and their conclusions; and between arguments occurring *in* the discourse and those that are *about* the discourse (Anthony et al. 2013). To solve the complex interaction of messages, people seek to identify areas of convergence among the messages, or elements that appear consistently in the messages, to get 'a single conclusion' (Perelman and Olbrechts-Tyteca 1969, p. 471).

During crises, stakeholders often receive interacting messages from diverse sources simultaneously. They have to decide which sources are more credible, which sources to rely on, and which messages to follow. Several scholars (Anthony and Sellnow 2011; Anthony et al. 2013; Herovic et al. 2014) applied MCF to crisis communication to understand the process by which individuals make meaning of multiple messages.

MCF was based on three propositions, which focus on source credibility, significance of source convergence, and evolution of source convergence throughout the crisis, respectively (Anthony et al. 2013). The present study was guided by the propositions of MCF on source credibility and evolution of source convergence.

MCF posits that 'convergence in the claims made by distinct sources, be it partial or complete, increases the strength of those claims' (Anthony et al. 2013, p. 349). Distinct views from various parties on a certain issue often result in multiple arguments. The converging information or overlaps among the arguments are especially significant for audiences and contribute to the persuasiveness of the arguments (Herovic et al. 2014). As revealed in Anthony et al.'s (2013) study on message convergence in a food contamination crisis, when audiences heard specific messages multiple times across different sources, they tended to trust the message and were more likely to participate in the action advocated by the sources. Social media such as Facebook are considered to be reliable sources for crisis-related information (Anthony et al. 2013). When people are on Facebook, they are exposed to organizational posts and followers' comments. If they find followers' comments consistent with the organization's posts, they are likely to trust the organization and its messages and have positive perceptions. Therefore, this study posits:

Hypothesis 2 (H2) People are more likely to perceive an organization positively when Facebook followers' comments are consistent with the organization's Facebook posts.

Given that the messages that converge are 'consistent among credible sources and plausible in their recommendations' (Anthony and Sellnow 2011, p. 83), whether people are influenced by converging information depends on whether they perceive the sources as credible. Research has shown that highly credible sources have more influence on a receiver's attitudes and behaviors than less credible ones. For example, Hovland and Weiss (1951) found that though people learned almost same amount of information from sources with high credibility and those with low credibility, they tended to resist accepting information from low-credibility sources. Based on the literature, this study posits:

Hypothesis 3 (H3) People's perceived credibility of messages on Facebook (organizational posts and follower comments) moderates the impact of post-comment consistency on people's perceived reputation of the organization.

MCF posits that the strength of convergence may be modified as a result of a reflection about this convergence (Anthony et al. 2013). In other words, the convergence observed earlier in a crisis may be questioned as additional information is presented. Whether the convergence changes depends on whether the new information is compatible with earlier information. In a crisis, stakeholders may receive crisis-related information from a variety of sources such as word-of-mouth, television, radio, newspapers, and corporate websites. Therefore, a majority of the stakeholders may have formed their perceptions of the organization before being exposed to the messages on Facebook. The consistency between an individual's pre-existing perception of the organization (convergence observed earlier) and newly emerged information (i.e., the organization's Facebook posts and Facebook followers' comments) determines how the person's perception will change. When consistency exists over time and circumstance across multiple observations, an individual is likely to feel more confident in his or her views of a situation and can make judgments quickly (Kelley 1973). In this sense, in a preventable crisis, an individual's prior positive attitude may intensify if the organization communicates with accommodative strategies and the organization's posts are endorsed by followers' comments. Therefore, this study posits:

Hypothesis 4 (H4) People's pre-existing attitudes toward an organization are more likely to be positively affected by consistency among pre-existing attitudes, the organization's Facebook posts, and Facebook followers' comments.

Hypothesis 5 (H5) People's pre-existing attitudes toward an organization are more likely to be negatively affected by



inconsistency among pre-existing attitudes, the organization's Facebook posts, and Facebook followers' comments.

Method

A 2×2 between-subjects experiment was conducted to test the impact of message convergence on audiences' perceived reputation of an organization-in-crisis. This study used BP's Facebook posts and the followers' comments as stimuli. The two independent variables tested are: level of accommodation of BP's posts (accommodative vs. defensive), and post-comment consistency: the degree of agreement between Facebook followers' comments and the statement made in BP's posts (consistent vs. inconsistent).

Stimuli

Four BP Facebook pages were created. Each page consisted of one post by BP, followed by ten comments by followers. BP's posts and the followers' comments used in the experiment were revised from the posts and comments posted on BP America's Facebook page.

BP's post on the third anniversary of the Deepwater Horizon oil spill that 'We deeply regret the loss of their lives and we are continuing to take action to meet our commitments to the Gulf of Mexico community and to implement what we have learned worldwide' was used as the accommodative message. Ten consistent comments (e.g., 'BP is doing more and more each day in the Gulf area. I think they want to do the right thing. They want to bring things back if not better than the way they were before the spill took place') and ten inconsistent comments (e.g., 'Thank you for the little things you've done to try and fix the really harmful big thing you did. I will never support BP') were chosen, respectively. BP's post that claimed 'After considerable testing, federal and state officials report that none of the Gulf area fish kills were due to the oil spill. Additionally, seafood testing has repeatedly shown that Gulf seafood is safe to eat' was used as the defensive message. Another ten consistent comments (e.g., 'Why refuse to accept FACTS. Thousands of tests have shown the seafood to be safe. Have you been eating seafood from the Gulf? If so, then continue') and ten inconsistent comments (e.g., 'BP, I really hate the way you lie. No seafood for me nor am I going into the water') were chosen accordingly.

Measures

Organizational Reputation

Perceived reputation of BP was measured using ten items from Coombs and Holladay's (1996) organizational reputation scale, including 'BP is basically honest,' 'BP is

concerned with the well-being of its publics,' and 'I do not trust BP to tell the truth about the incident (reverse coded),' etc. ($\alpha = 0.885$).² All responses were measured with a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

Perceived credibility of message

Perceived credibility of BP's posts ($\alpha = 0.951$) and perceived credibility of Facebook followers' comments ($\alpha = 0.901$) were measured with five 7 point semantic differential scales developed by Tuppen (1974), including 'untrustworthy/trustworthy,' 'dishonest/honest', "unreliable/reliable," 'irresponsible/responsible,' and 'insincere/sincere.'

Pre-existing Attitude

Participants' attitudes toward BP were measured prior to reading the experimental materials with four 7-point semantic differential scales, including 'dislike/like,' 'negative/positive,' 'unfavorable/favorable,' and 'bad/good' (Holbrook and Batra 1987) ($\alpha = 0.978$).

Post Attitude

Using Holbrook and Batra's (1987) scales, participants' attitudes toward BP were measured again after they read the experimental materials ($\alpha = 0.976$).

Procedure

This study used an online experiment. Because the focus of this study is use of Facebook in crisis communication, it is more natural to conduct the experiment in an online setting than in a lab. Participants were recruited from a research pool at a southern university for two reasons. First, college students represent an important group targeted for organizational communication on social media, as social networking sites are most popular with young adults under the age of 30 years, in particularly, between the ages of 18 and 24 years (Akar and Topçu 2011). Second, according to MCF, people who perceive an issue as significant are more likely to seek converging information and to be influenced by this information (Anthony et al. 2013). Compared to those who observed the oil spill from afar, those who lived in the states directly affected by the oil spill were likely to have a better understanding about what information they

² All scales used to measure intervening variables and dependent variables were tested for reliability using Cronbach's alpha. All scales were shown to be reliable with alpha values greater than 0.70.



needed, and to attach more importance to the convergence they observed from various sources.

Qualtrics was used to collect data. Participants were guided to the Qualtrics website, which hosts the study, by following the link provided in the pool. After they read the introduction of the study and agreed to participate, they were randomly assigned to one of the four experimental conditions with the help of the random assignment feature of Qualtrics. Right after reading the messages, participants were asked to answer a series of questions.

Participants

A total of 165 undergraduate students completed the questionnaires and received extra credit for their participation. The sample sizes of the four experimental conditions were 45, 44, 36, and 40, respectively. Among the 165 participants, 103 are females (62.4%), and 62 are males (37.6%). The average age of participants was 20.02 years ($SD = 1.364$). A majority of the participants use social media ($n = 162$, 98.2%), with a preference for Twitter ($n = 68$, 41.2%), followed by Facebook ($n = 60$, 36.4%), Instagram ($n = 17$, 10.3%), YouTube ($n = 9$, 5.5%), Pinterest ($n = 3$, 1.8%), LinkedIn ($n = 2$, 1.2%), Reddit ($n = 2$, 1.2%), and Tumblr ($n = 2$, 1.2%). Most of them are following or have followed organizational accounts on Facebook ($n = 121$, 73.3%), Twitter ($n = 116$, 70.3%), Instagram ($n = 28$, 17%), or on Pinterest, Tumblr, YouTube or other social media ($n = 8$, 4.8%).

Results

With an experiment using BP's communication on the Deepwater Horizon oil spill, our study explored how convergence of multiple messages on Facebook influences organizational reputation during a preventable crisis, H1 and

H2 posited that use of accommodative messages (H1) and post-comment consistency (H2) would lead to a more favorable perceived reputation of an organization-in-crisis. A two-way ANOVA was performed, with people's perceived reputation of BP as the dependent variable, and post-comment consistency and accommodation level of BP's posts as the independent variables. The analysis revealed a significant main effect of post-comment consistency on participants' perceived reputation of BP, with consistent posts and comments engendering more positive perceived reputation ($M = 4.02$, $SD = 1.007$) than inconsistent posts and comments ($M = 3.68$, $SD = 0.951$, $F(1, 161) = 5.292$, $p = 0.023$, $\eta^2 = 0.032$). Though results showed that participants perceived BP as more positive when BP used accommodative strategies than when BP used defensive strategies in both conditions of post-comment consistency, the differences were not statistically significant ($p = 0.145$). Therefore, H1 was not supported, and H2 was supported.

H3 posited that the impact of post-comment consistency on people's perceived reputation of an organization is influenced by their perceived credibility of information on Facebook (i.e., the organization's posts and followers' comments). To test the hypothesis, post-comment consistency was dummy coded with '1' being consistent and '0' being inconsistent. Two hierarchical regressions were performed to test the moderating effects of credibility of BP's posts and Facebook followers' comments, respectively. Results revealed that the perceived credibility of followers' comments moderated the effect of message consistency on the perceived reputation of BP [$F(1, 161) = 11.944$, $\Delta R^2 = 0.066$, $p = 0.001$, see Table 1]. When posts and comments were consistent, the more credible followers' comments were perceived to be, the more positive BP's reputation was perceived to be. Whereas, when posts and comments were inconsistent, the more credible followers' comments were perceived to be, the more negative BP's reputation was perceived to be. No

Table 1 Summary of hierarchical regression results

Predicting	Model	Predictor	B	β	p	R^2	ΔR^2
Perceived Reputation of BP	1	(Constant)	3.681		0.000	0.029	0.029
	2	Post-comment consistency	0.338	0.171	0.028		
		(Constant)	3.667		0.000	0.052	0.022
	3	Post-comment consistency	0.336	0.185	0.017		
		Perceived credibility of Facebook followers' comments	0.111	0.150	0.052		
		(Constant)	3.694		0.000	0.117	0.066
		Post-comment consistency	0.360	0.182	0.015		
		Perceived credibility of Facebook followers' comments	-0.103	-0.139	0.216		
		Post-comment consistency \times Perceived credibility of Facebook followers' comments	0.382	0.386	0.001		



significant moderating effect was found for the credibility of BP's posts ($p = 0.117$). Therefore, H3 was partially supported.

H4 and H5 posited that people's pre-existing attitudes toward the organization-in-crisis would change due to consistency (H4) and inconsistency (H5) among individuals' pre-existing attitudes, the organization's posts and followers' comments. A series of paired-sample t-tests were performed to address the two hypotheses. Results revealed that participants' pre-existing neutral-to-positive attitudes toward BP were negatively affected when BP used defensive strategies and Facebook followers' comments were consistent with BP's posts ($M_{\text{prior attitude-post attitude}} = 0.435$, $t(22) = 2.152$, $p = 0.021$) and when BP used defensive strategies, and followers' comments were inconsistent with BP's posts ($M_{\text{prior attitude-post attitude}} = 0.544$, $t(16) = 2.011$, $p = 0.030$). No significant differences were found between participants' prior and post attitudes in other conditions. Therefore, H5 was supported, but H4 was not supported.

Discussion

This study was designed to empirically investigate how message convergence on Facebook affects the reputation of the organization-in-crisis. The results demonstrate that post-comment consistency predicted perceived reputation of BP, with the perceived reputation being positive when posts and comments were consistent, and negative when posts and comments were inconsistent. The results confirmed Anthony et al.'s (2013) claim that the presence of consensus among diverse sources can be a powerful force in an individual's decision-making process. In their study exploring individual's decision-making processes about food choices in a food-contamination crisis, respondents reported that they do not rely on one source of information for decision making, but instead, check out multiple sources for overlapping messages concerning the crisis because 'hearing a message multiple times from different sources is convincing' (Anthony et al. 2013, p. 355). In the present study, respondents were more likely to believe that their impression of BP was a true reflection of BP's inherent properties when information from followers and information from BP was consistent.

This study found that participants did not perceive BP more positively when BP employed accommodative communication strategies. Because the effectiveness of crisis communication strategies depends on the credibility of the organization-in-crisis, the credibility of the organization is influenced by the organization's pre-crisis reputation and crisis history. A favorable reputation prior to a crisis can protect an organization from harm since a favorable

reputation can increase the believability of an organization's messages and lead stakeholders to accept and believe the organization's side of story (Coombs and Holladay 2006). On the other hand, a poor pre-crisis reputation can tarnish the persuasiveness of an organization's messages. Similarly, stakeholders are more willing to accept claims made by an organization with a positive history (Coombs 1995). If an organization has had a similar crisis in the past, the current crisis will be a much greater threat to its reputation (Coombs 2012). BP had a poor crisis history prior to the Deepwater Horizon oil spill: leaks at its Prudhoe Bay oilfield in Alaska in 2006 and pipeline leaks in Alaska in 2009 have undermined its credibility in general and the credibility of its messages to its stakeholders about the crisis. Likely for the same reason, the effect of post-comment consistency on individuals' perceived reputation of BP did not significantly differ due to the perceived credibility of BP's Facebook posts.

The results revealed a significant moderating effect of the perceived credibility of Facebook followers' comments: the more credible that followers' comments were perceived to be, the more positive BP's reputation was perceived to be in the post-comment consistency condition, while the more credible that followers' comments were perceived to be, the less positive BP's reputation was perceived to be in the post-comment inconsistency condition. The result confirmed that between the two dimensions of source credibility (i.e., expertise and trustworthiness), trustworthiness is considered to be a more important factor in influencing credibility than expertise (McGinnies and Ward 1980). Expertise refers to the degree to which the audience considers a source qualified to know the truth, and trustworthiness refers to the degree to which the audience perceives a source as motivated to tell the truth (Metzger et al. 2003). Facebook followers may or may not have actual knowledge about the oil spill because not all lived in the areas affected or volunteered in the clean up. They were considerably more credible than BP in this study, probably because of their perceived lack of self-interest. Self-interest of the source plays a key role in people's perception of source credibility. For example, if a communicator profits by persuading a message receiver, the receiver tends to judge the communicator as less trustworthy and therefore has a less favorable attitude toward the communicator (Kelman and Hovland 1953).

Because of the high credibility of Facebook followers, they actually acted as third-party endorsers for BP in the information-consistency condition. Their comments added credibility to BP's posts. Therefore, respondents who perceived followers' comment credible were likely to trust BP's posts as well. When both comments and posts are considered credible, being exposed to both sources can enhance the persuasive power of BP's posts and so generate



more positive attitudes toward BP. While in the information-inconsistency condition, respondents tended to accept information from the followers, thus perceived BP less favorably. It confirmed Anthony et al.'s (2013) claim that source credibility is used as a primary means to resolve the contest among multiple voices in crisis communication.

Individuals' pre-existing positive attitudes toward BP were dampened by the inconsistency among information from three sources: the person's pre-existing attitude, BP's posts, and the followers' comments. The finding confirmed Perelman and Obrechts-Tyteca's (1969) notion that additional information or sources may disempower previously overlapping messages if the additional information is incompatible with those messages (Anthony et al. 2013).

Interestingly, people's prior negative attitudes toward BP did not significantly change, regardless of consistency or inconsistency among the aforementioned three sources of information. A possible explanation is that people's prior negative attitudes were influenced by their perceptions of BP, which was based on their trust of BP. Trust is based on whether an organization meets stakeholders' expectations and whether the organization is perceived as caring about the well-being of its stakeholders (Rawlins 2008). The severity of damage caused by the oil spill dampened some stakeholders' trust of BP. Trust is built over time with positive experiences between organizations and their stakeholders, but once trust is broken, it is difficult to rebuild within a short period. According to Tversky and Kahneman (1974), some events in memory are more readily available than other events, and people predict future outcomes on the basis of past information and expect trends to continue to move in the direction that they have moved in the past. Therefore, if the trust between an organization and its stakeholders is broken, stakeholders tend to believe that the trust will be broken again and they will continue distrusting the organization, as long as there is no salient event that changes these beliefs. In this sense, the organization-in-crisis can only rebuild trust by consistently acting in trustworthy manner.

Implications

This study offers theoretical contributions and managerial implications in the context of crisis communication using Facebook for both scholars and professionals. This study contributes to MCF by testing its applications in a real-life crisis analysis with a quantitative method. Earlier research about MCF mainly used qualitative methods such as focus groups and case studies (e.g., Anthony et al. 2013; Herovic et al. 2014). By using an experiment, this study improves the external validity of the framework by supporting its propositions in the Facebook environment, including

convergence among multiple messages from various sources enhancing the strength of those messages; source credibility is a key factor influencing individuals' interpretations of convergence; and the strength of existing convergence diminishes when incompatible information is added.

The results of this study also have practical significance. The study revealed high-perceived credibility of Facebook followers' comments and a significant impact of message convergence on audiences' perceived reputation of an organization. The findings suggest the importance of the pre-crisis organization-stakeholder relationship to the success of an organization's crisis communication on Facebook. For organizations having strong and favorable pre-crisis relationships with stakeholders, using Facebook may have more benefits than risks as the organizations are likely to get endorsements, or positive comments, from stakeholders online. Those comments are likely to enhance the believability of the organization's posts and therefore lead audiences to accept the organization's posts and form perceptions desired by the organization. Conversely, organizations that have a poor crisis history and unfavorable relationships with their stakeholders may need to be cautious about using Facebook because stakeholders may post unfavorable comments. Moreover, previous research has indicated that extreme dissatisfaction correlates with high propensity to post comments online (Dellarocas and Narayan 2006).

Even when an organization has favorable relationships with its stakeholders prior to a crisis, if the organization has a strong crisis responsibility, it should still be cautious about choosing crisis communication strategies. This study revealed that respondents' pre-existing positive attitudes were less stable than pre-existing negative attitudes, and their pre-existing positive attitudes were amenable to change when influenced by the organization's defensive strategies. Therefore, in a preventable crisis, practitioners may want to primarily adopt accommodative strategies rather than defensive strategies on Facebook.

Limitations and Future Research

This study faces several limitations. It only explored the effects of Facebook in a preventable crisis. While Facebook is a popular social networking site in crisis communication (Wigley and Zhang 2011), it is only a small slice of the media used by an organization-in-crisis communication. Future research could further examine the effects of other social media, a combination of two or more social media, or a combination of social media and other forms of media in crisis communication. Additionally, future research could also investigate the effects of Facebook or other social media in other types of crises, such as those with lower crisis responsibility.



References

- Akar, E., and B. Topçu. 2011. An examination of the factors influencing consumers' attitudes toward social media marketing. *Journal of Internet Commerce* 10: 35–67.
- Anthony, K.E., and T.L. Sellnow. 2011. Information acquisition, perception, preference, and convergence by Gulf Coast residents in the aftermath of the Hurricane Katrina crisis. *Argumentation and Advocacy* 48: 81–96.
- Anthony, K.E., T.L. Sellnow, and A.G. Millner. 2013. Message convergence as a message-centered approach to analyzing and improving risk communication. *Journal of Applied Communication Research* 41 (4): 346–364.
- Coombs, W.T. 1995. Choosing the right words: The development of guidelines for the selection of the “appropriate” crisis-response strategies. *Management Communication Quarterly* 8 (4): 447–476.
- Coombs, W.T. 1998. An analytic framework for crisis situations: Better responses from a better understanding of the situation. *Journal of Public Relations Research* 10 (3): 177–191.
- Coombs, W.T. 2006. The prospective power of crisis response strategies: Managing reputational assets during a crisis. *Journal of Promotion Management* 12 (3/4): 241–260.
- Coombs, W.T. 2012. *Ongoing crisis communication: Planning, managing, and responding*, 3rd ed. Thousand Oaks: SAGE Publications.
- Coombs, W.T., and S.J. Holladay. 1996. Communication and attributions in a crisis: An experimental study of crisis communication. *Journal of Public Relations Research* 8 (4): 279–295.
- Coombs, W.T., and S.J. Holladay. 2006. Halo or reputational capital: Reputation and crisis management. *Journal of Communication Management* 10 (2): 123–137.
- Dellarocas, C., and R. Narayan. 2006. A statistical measure of a population's propensity to engage in post-purchase online word-of-mouth. *Statistical Science* 21 (2): 277–285.
- Fan, D., D. Geddes, and F. Flory. 2013. The Toyota recall crisis: Media impact on Toyota's corporate brand and reputation. *Corporate Reputation Review* 16 (2): 99–117.
- Fombrun, C., N.A. Gardberg, and J.M. Sever. 2000. The reputation Quotient: A multi-stakeholder measure of corporate reputation. *Journal of Brand Management* 7 (4): 241–255.
- Fombrun, C.J., L.J. Ponzi, and W. Newbury. 2015. Stakeholder tracking and analysis: The RepTrak system for measuring corporate reputation. *Corporate Reputation Review* 18 (1): 3–24.
- Fombrun, C.J., and M. Shanley. 1990. What's in a name? Reputation building and corporate strategy. *Academy of Management Journal* 33 (2): 233–258.
- Hayes, D.C., J.A. Hendrix, and P.D. Kumar. 2013. *Public relations cases*, 9th ed. Boston: Wadsworth.
- Herovic, E., T.L. Sellnow, and K.E. Anthony. 2014. Risk communication as interacting arguments: Viewing the L'Aquila earthquake disaster through the message convergence framework. *Argumentation and Advocacy* 51: 73–86.
- Holbrook, M.B., and R. Batra. 1987. Assessing the role of emotions as mediators of consumer response to advertising. *Journal of Consumer Research* 14: 404–420.
- Hovland, C.I., and W. Weiss. 1951. The influence of source credibility on communication effectiveness. *Public Opinion Quarterly* 15 (4): 635–650.
- Kelley, H.H. 1973. The processes of causal attribution. *American Psychology* 28: 107–128.
- Kelman, H.C., and C.I. Hovland. 1953. “Reinstatement” of the communicator in delayed measurement of opinion change. *Journal of Abnormal and Social Psychology* 48 (3): 327–335.
- Kerkhof, P., Beugels, D., Utz, S. and Beukeboom, C. (2011) ‘Crisis PR in social media: An experimental study of the effects of organizational crisis responses on Facebook’. Paper presented at the International Communication Association Conference, 26–30 May, Boston.
- Mason, A.M. 2014. The impact of media frames and treatment responsibility within the situational crisis communication theory framework. *Corporate Reputation Review* 17 (1): 78–90.
- McGinnies, E., and C. Ward. 1980. Better liked than right: Trustworthiness and expertise as factors in credibility. *Personality and Social Psychology Bulletin* 6: 467–472.
- Metzger, M.J., A. Flanagin, K. Eyal, D.R. Lemus, and R.M. McCann. 2003. Credibility for the 21st Century: Integrating perspectives on source, message, and media credibility in the contemporize environment. *Communication Yearbook* 27: 293–335.
- Muralidharan, S., L. Rasmussen, D. Patterson, and J.-H. Shin. 2011. Hope for Haiti: An analysis of facebook and twitter usage during the earthquake relief efforts. *Public relations Review* 37 (2): 175–177.
- Perelman, C., and L. Olbrechts-Tyteca. 1969. *The new rhetoric: A treatise on argumentation*. London: University of Notre Dame Press.
- Prabhu, J., and D.W. Stewart. 2001. Signaling strategies in competitive interaction: Building reputations and hiding the truth. *Journal of Marketing Research* 38 (1): 62–72.
- Rawlins, B. 2008. Measuring the relationship between organizational transparency and trust. *Public Relations Journal* 2 (2): 425–439.
- Roberts, P., and G. Dowling. 2002. Corporate reputation and sustained superior financial performance. *Strategic Management Journal* 23 (12): 1077–1093.
- Tuppen, C.J.S. 1974. Dimensions of communicator credibility: An oblique solution. *Speech Monographs* 41: 253–260.
- Tversky, A., and D. Kahneman. 1974. Judgment under uncertainty: Heuristics and biases. *Science* 185 (4157): 1124–1131.
- van Riel, C.B.M. 2012. *The alignment factor: Leveraging the power of total stakeholder support*. London and New York: Routledge Press.
- Weigelt, K., and C. Camerer. 1988. Reputation and corporate strategy: A review of recent theory. *Strategic Management Journal* 9 (5): 443–455.
- Wigley, S., and W. Zhang. 2011. A study of PR practitioners' use of social media in crisis planning. *Public Relations Journal* 5 (3): 1–16.
- Yoon, E., H.J. Guffey, and V. Kijewski. 1993. The effects of information and company reputation on intentions to buy a business service. *Journal of Business Research* 27: 215–228.

Lan Ye (PhD, University of Alabama, 2014) is an assistant professor in the Communication Studies Department at State University of New York at Cortland. Her research focuses on use of social media in reputation management and crisis communication.

Eyun-Jung Ki (PhD, University of Florida, 2006) is a professor in the Department of Advertising and Public Relations at the University of Alabama. Her research focuses on (1) Developing measurement scales, (2) Testing models linking crisis, relationship, attitudes, and behaviors, (3) Examining new technologies in public relations, and (4) examining the effects of organization sustainability communications.

