

**Effects of corporate online communication on attitude and trust:  
Experimental analysis of Twitter messages**

Ji Young Kim, Ph.D.  
Assistant Professor  
School of Communications  
College of Social Sciences  
University of Hawai‘i at Mānoa  
[jkim22@hawaii.edu](mailto:jkim22@hawaii.edu)

Jinhyon K. Hammick, Ph.D.  
Assistant Professor  
Department of Communication  
Flagler College  
University of Hawai‘i at Mānoa  
[jhammick@flagler.edu](mailto:jhammick@flagler.edu)

For all correspondence:  
Ji Young Kim, Ph.D.  
1-808-956-3353  
[jkim22@hawaii.edu](mailto:jkim22@hawaii.edu)

**Abstract**

This study aims to examine how corporate online communication messages can enhance audience’s attitude and trust toward a corporation. A 2x3 experimental study was conducted, simulating the types of relationship and the perceived level of interactivity on corporate Twitter messages. The data suggest that the type of relationship is an essential predictor of audience's attitude and trust toward the corporation, and an interaction effect of the two independent variables was also found on the perceived attitude toward the corporation. The effects remained when medium credibility and familiarity were controlled. The potential of Twitter as a persuasive tool in business communication was discussed.

Keywords: Relationship, interactivity, interactive media, Twitter, microblog, attitude, trust

## **Introduction**

Emerging social media (i.e., blogs, YouTube, Twitter, Facebook or MySpace) have influenced every aspect of our personal and social lives. The impact of social media has been largely studied in communication fields to explore their theoretical and practical implications on social, business, or political sectors (i.e., Kim, Kim, & Nam, 2014). Twitter is one of the most prominent social media. Starting with 94,000 users acquired in their first year (Comscore, 2007), Twitter has now reached approximately 320 million monthly active users (Twitter, 2015). Being defined as a type of microblog (Java, Song, Finin, & Tseng, 2009), Twitter has its unique features that attract companies as a communication channel. With short messages limited to 140 characters, communication over Twitter is considered to be a fast-paced medium as there are more than 347,000 tweets posted every minute (Kapco, 2015). For that reason, it is not surprising that 80% of the users access Twitter via their mobile (Statista, 2015). Through this fast communicative tool, users can share information about their current status, activities, feelings, opinions or thoughts (Linville, McGee, & Hicks, 2012).

There are a few studies analyzing users' comments on YouTube and Facebook (i.e., Das, 2010). Surprisingly, despite Twitter's increasing attention and popularity, research to date has yet to provide clear pictures as to how this corporate communication on Twitter could differently affect the corporation-customer relationships (i.e., Honey & Herring, 2009; Sriram, Fuhry, Demir, Ferhatosmanoglu, & Demirbas, 2010). Hence, the purpose of the current study is to explore the impact of corporate Twitter use on customers' attitude toward an organization focusing on relationship and interactivity indicators of Twitter messages. In particular, it will examine the effects of these two factors and their perceived attitude and trust toward an organization to discuss the potential of Twitter as a persuasive and informative tool in a business context.

## **Literature review**

### *Public relations on social media*

Blogs are one of the well known online communication tools, and their communicative use has been emphasized in the public relations field. Rheingold (2008) defined a blog as "a Web page that is updated frequently, with the most recent entry displayed at the top of the page" (p. 103). Practically, the influence on individuals and the public has been largely studied by public relations professionals and blogs are considered as a powerful persuasive communication tool (Edelman & Intelliseek, 2005a, 2005b; Kent, 2008). One of the emerging social media has also been emphasized by public relationship scholars as a type of "microblogging" (Henning-Thurau, Wiertz, & Feldhaus, 2014). In a business context, Twitter can be used to transfer ideas between corporations and the public without any restrictions in time and place (Kim & Ko, 2012; Riemer & Richter, 2010).

One of the widely discussed characteristics of online communications (i.e., blogs) is interactivity based on the communication between an organization and the public (Lenhart & Fox, 2006), especially due to its influence on customers' opinion and attitude (Fortin & Dholakia,

2005). The interactive features of blogs empower an organization to maintain their organization-public relationships by communicating with a large number of the public with a "conversational human voice" (Kelleher, 2009, p. 172). From a public relations standpoint, interactivity is defined as "the degree to which participants in a communication process can exchange roles and have control over their mutual discourse" (Rogers, 1995, p. 314). Ha and James (1998) also defined interactivity as "the extent to which the communicator and the audience respond to, or are willing to facilitate, each other's communication needs" (p. 461). Kioussis (2002) identified three dimensions of interactivity (structure of technology, communication context and user perception) and also suggested the three major components of each dimension (properties of technology, attributes of communication contexts and user perceptions).

Another way of conceptualization based on user interactivity is a distributed model of public relations suggested by Smith (2010). Posts on corporate Twitter sites can be perceived as the organizational entity of the corporation, and public relations responsibility is distributed with interconnected message posts (Smith, 2010). While Twitter is a tool for self-expression, an organization can also use Twitter to be engaged with social issues (i.e., retweets or hashtags). This way, users can search, retrieve and distribute information online when user interactivity is involved (Smith, 2010).

### *Relationship management*

Since Ferguson (1984) emphasized the concept of relationships between an organization and its publics, relationships have become one of the most important perspectives in the public relations field. Ledingham and Bruning (1998) defined the relationship as "the state which exists between an organization and its key publics in which the actions of either entity impacts the economic, social, political and/or cultural well-being of the other entity" (p.62). The nature of relationships between an organization and its targeted public audience also has been a central domain in marketing or social psychology for customer relationship building.

Researchers have tried to expand our understanding about how to measure the organization-public relationships, and they suggested several relationship dimensions to measure the relationship outcomes such as commitment, trust, or openness (Broom & Dozier, 1990; Grunig, 1993; Toth, 1995). Elaborating on these factors, Hon and J. Grunig (1999) provide a guideline to measure organization-public relations which consists of six relationship outcomes: control mutuality, trust, commitment, satisfaction, communal relations and exchange relations. Hung (2005) also defined the two types of relationships as communal and exchange relationships to explore how and why the relationship outcomes differ by the type of the relationships. In economic exchange relationships, something is expected in return to maintain the relationships (Goffman, 1961). On the other hand, in a communal relationship, one is concerned about the welfare and benefit of the others (Clark & Mill, 1979). While mutually beneficial exchanges can help organizations to begin a relationship with their publics, the relationship needs indicators of communal relationships as it matures (Hon & Grunig, 1999). Adopting from Hon and Grunig (1999), Edman (2010) defined communal relationships as "mutually beneficial relationship where both the organization and its publics give benefits to each other even when they receive

nothing in return” and exchange relationship as a promotional relationship where the organization expect something in return (p. 120-121).

### Reputation and trust

Corporate reputation and brand are some of the most widely studied concepts related to the consequences of relationships. Hutton, Goodman, Alexander and Genest (2001) argued that reputation management is the key for successful public relations and strategic corporate communications. Reputation is not a concrete concept that can be directly measured. However, it is strongly related to individuals’ global behaviors or attitude toward the organization (Finn, 1998; Hutton et al., 2001). Lau and Lee (1999) proposed items to measure perceived brand reputation of an organization in regard to the brand goodness, reliability and what other people have said about the goodness and reliability of the brand. These items were adopted from brand predictability, competency and consistency (Remple, Holmes, & Zanna, 1985). Exploring blog engagement, Yang and Kang (2009) adopted attitude scales from Boulding and Kirmani (1993).

Moreover, researchers have supported positive impacts of reputation, competence, and predictability on customers' trust in brand (Anderson, Gerbing, & Hunter, 1987; Steenkamp & van Trijp, 1991). Afzal, Khan, Rehman, Ali, and Wajahat (2010) suggest that a corporation can build a good brand reputation when they meet the customers’ expectation and satisfy their needs. That way, the good brand reputation can lead to customers' trust in brand (Morgan-Thomas & Veloutsou, 2013). Trust has been defined as one's confidence on the other party's reliability (Hon & Grunig, 1999, p. 19). Trust is identified with multidimensional items including integrity, benevolence, ability and predictability (Gefen & Straub, 2004).

### Credibility of Twitter

Finally, scholars defined credibility as the extent of how much one can believe, indicating that it is created by the perceptions of the media users (Johnson, Kaye, Bichard, & Wong, 2008; Johnson & Kaye, 2004, 2009; Melican & Dixon, 2008; Schweiger, 2000). For example, Kensicki (2003) identified three different types of credibility as source, medium, and message credibility. Source credibility indicates how trustworthy and believable the source of a message is (Hovland, Janis, & Kelly, 1953; Patzer, 1983). Literature suggests trustworthiness, expertise and/or qualification as dimensions of source credibility (Fogg et al., 2001; Hovland & Weiss, 1951). Medium credibility, explains whether the media was credible, based on the perceptions of believability, fairness, accuracy and the depth of information (Johnson & Kaye, 2004, 2009; Flanagin & Metzger, 2000; Martin & Johnson, 2010). Message credibility was also measured by the perceptions of the believability, accuracy, trustworthiness, bias and completeness of the information (Flanagin & Metzger, 2007). The author of the blogs can be an official member of an organization or semi-official and endorsed by an organization. Different types or sources of blogs can affect the level of credibility of the organizational communications, and it can also directly affect the impacts of communication (Kelleher & Miller, 2006).

### Hypotheses

In regard to the direct relationship between two independent variables (type of relationships and the perceived level of interactivity) and dependent variable (attitude toward corporation and trust), the following hypotheses have been proposed:

*H1: The type of relationship of corporate tweets will affect customers' attitude toward the corporation.*

*H2: The perceived level of interactivity of corporate tweets will affect customers' attitude toward the corporation.*

*H3: There will be an interaction effect between the type of relationship and the perceived level of interactivity of corporate tweets on customers' attitude toward the corporation.*

*H4: The type of relationship of corporate tweets will affect customers' perceived trust on the corporation.*

*H5: The perceived level of interactivity of corporate tweets will affect customers' perceived trust on the corporation.*

*H6: There is an interaction effect between the type of relationship and the perceived level of interactivity of corporate tweets on customers' perceived trust on the corporation.*

Additionally, the following hypotheses are also proposed to explore the main and interaction effects of independent variables on the two dependent variables when controlling the effects of the two control variables (medium credibility and familiarity).

*H7: When controlling medium credibility, the type of relationship of corporate tweets and the perceived level of interactivity of corporate tweets will affect customers' attitude toward the corporation.*

*H8: When controlling medium credibility, the type of relationship of corporate tweets and the perceived level of interactivity of corporate tweets will affect customers' perceived trust toward the corporation.*

*H9: When controlling medium familiarity, the type of relationship of corporate tweets and the perceived level of interactivity of corporate tweets will affect customers' attitude toward the corporation.*

*H10: When controlling medium familiarity, the type of relationship of corporate tweets and the perceived level of interactivity of corporate tweets will affect customers' perceived trust toward the corporation.*

## **Method**

### *Participants and procedures*

A total of 182 undergraduate students from a large state university participated in this study. The sample consisted of 146 females and 35 males. A 2×3 “between-subjects” factorial design was employed to test the hypotheses. The experimental conditions provided two

categories of relationship (communal and exchange) and three levels of interactivity (low, medium, and high) in terms of the use of responsiveness indicators on its Twitter page.

The subjects were randomly assigned to six experimental conditions: communal-low/medium/high interactivity and exchange-low/medium/high interactivity. After a brief introduction, each student was given a booklet that includes the experimental stimuli (standard format of Twitter page) and a questionnaire.

### Manipulation

The two factors, relationship and interactivity, were manipulated from two different approaches. The relationship factor, which consists of communal and exchange, was manipulated in terms of messages. Messages that belong to the communal category included posts that demonstrate the company provides benefit to the customer or the public without expecting immediate return (Edman, 2010). Specifically, helpful tips or encouraging customers' participation in fundraising activities were good examples for communal posts.

Unlike relationship factors, interactivity was varied from functional perspectives. In this current study, the level of interactivity (low, medium, and high) of the tweets was determined by the responsiveness of the company and their usage of these Twitter features (i.e., hyperlinks or retweets) (Edman, 2010). The functional features include hyperlinks to more information, retweet, and direct response to customer's tweets.

### Dependent variables and measurements

The primary dependent measures were the attitude toward a corporation and the trust of the corporation. The attitude toward a corporation was measured by five 5-point items which were modified from the scale of *Attitude toward a company* developed by Boulding and Kirmani (1993). In addition to the five items (reputable/unreputable, responsible/irresponsible, financially stable/financially unstable, established/fly-by-night and long-run oriented/short-run oriented), a single item of "I feel that this corporation will still be in business 7 years from now" (Boulding and Kirmani, 1993; Yang & Kang, 2009) was also added to measure the company attitude.

Trust was measured by nine 5-point Likert items adapted from Hon and Grunig's trust scale (1999). The trust scale, which measures the three dimensions of integrity, competence and dependability, anchored at "Strongly disagree" and "Strongly agree".

As moderating factors in terms of the medium, the survey instrument also measured medium credibility and the familiarity of Twitter. Medium credibility was measured by four, five-point items developed by Johnson and Kaye (2004). These multidimensional items consist of perceptions of believability, fairness, accuracy and the depth of information (Johnson & Kaye, 2004; Flanagan & Metzger, 2000; Martin & Johnson, 2010). To measure the familiarity of the use of Twitter, five items were adopted from Gefen and Straub's 26-item scale which was developed to measure the familiarity with an e-commerce site (Gefen & Straub, 2004).

## **Results**

Manipulation checks

Manipulations of the independent variables were satisfactory. In the type of relationship manipulation, the participants perceived the differences between communal and exchange relationships. Between the two groups, the level of communal relationship (communal  $M = 26.24$ , exchange  $M = 23.98$ ,  $t = 4.434$ ,  $df = 179$ ,  $p < .001$ ) and exchange relationship (communal  $M = 8.75$ , exchange  $M = 8.07$ ,  $df = 178$ ,  $t = -2.25$ ,  $p < .05$ ) were significantly different. In the interactivity indicator manipulation, the participants also perceived significant differences among three conditions (high  $M = 25.58$ , medium  $M = 24.25$ , low  $M = 22.76$ ,  $F = 9.556$ ,  $df = 178$ ,  $p < .001$ ). Cronbach's  $\alpha$  reliability scores were satisfactory for all the dependent variables: attitude (.88) and trust (.82). Also, reliability scores were measured for the following two control variables: medium trust (.81) and familiarity (.96).

Hypothesis testing

The descriptive statistics of all dependent variables are presented in Table 1. The average mean score of the perceived attitude was 18.08 out of 25, and the mean score of trust was 31.87 out of 45. For the perceived attitude, the mean score of the communal relationship groups ( $M = 18.99$ ,  $SD = 4.12$ ) was higher than the exchange relationship groups ( $M = 17.15$ ,  $SD = 3.87$ ) ( $t = 3.100$ ,  $df = 179$ ,  $p < .05$ ). Also, trust had higher mean scores in the communal relationship groups ( $M = 33.13$ ,  $SD = 3.84$ ) than the exchange relationship group ( $M = 30.56$ ,  $SD = 3.39$ ) ( $t = 4.760$ ,  $df = 179$ ,  $p < .001$ ). On the other hand, the mean scores of the perceived attitude and trust were not significantly different among the three interactivity groups.

Table 1. Mean and standard deviation of dependent variables

<i>Dependent variable</i>	<i>Type of relationship</i>	<i>Interactivity</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Attitude <sup>a</sup>	Communal relationship	High	18.33	4.41	33
		Medium	20.63	4.39	27
		Low	18.28	3.21	32
	Exchange relationship	High	18.27	3.78	30
		Medium	16.03	3.93	29
		Low	17.10	3.71	30
Trust <sup>b</sup>	Communal relationship	High	32.79	4.06	33
		Medium	33.48	3.20	27
		Low	33.19	4.18	32
	Exchange relationship	High	30.33	3.63	30
		Medium	30.76	3.38	29
		Low	30.60	3.27	30

<sup>a</sup> Added values of six items: 5-point likert scales were used to measure whether the corporation is reputable, responsible, financially stable, established, long-run oriented, and whether the corporation will still be in business 7 years from now (i.e., Boulding and Kirmani, 1993; Yang & Kang, 2009)

<sup>b</sup> Added values of nine 5-point likert scale items adopted from Hon & Grunig's (1999) trust scale.

The summary of two-way MANOVA on participants' perceived attitude and trust is shown in Table 2. *Box's test* of equality of covariance matrices was not significant ( $F = 1.549, p > .05$ ), and the error variance of the dependent variable was equal across groups. The main effect of the type of relationship ( $F = 14.646, p < .001$ , Wilks' Lambda = .856, partial eta squared = .144) and the interaction effect of the relationship and interactivity ( $F = 2.614, p < .05$ , Wilks' Lambda = .943, partial eta squared = .029) were found. However, the main effect of the interactivity was not found ( $F = .450, p > .05$ , Wilks' Lambda = .990, partial eta squared = .005).

Table 2. Two-way ANOVA for the perceived attitude and trust

<i>Variables</i>	MANOVA <sup>a</sup>	ANOVA	
		Attitude	Trust
	<i>F</i>	<i>F</i>	<i>F</i>
Relationship	14.646**	11.138*	22.495**
Interactivity	.450	.518	.353
Relationship x Interactivity	2.614*	5.287*	.020

<sup>a</sup> Wilks' Lamda: .856 (relationship), .990 (interactivity), and .934 (interaction)

\*\* $p < .001$ , \* $p < .05$

To test hypotheses, a two-way multivariate analysis of variance (MANOVA) was conducted using General Linear Model on SPSS (significance level of .05) (Table 3).

Table 3. Two-way MANOVA for the perceived attitude and trust

<i>Source</i>	<i>df</i>	<i>MS</i>	<i>F</i>
<hr/>			
Attitude			
Relationship	1	170.930	11.138*
Interactivity	2	7.953	.518
Relationship x Interactivity	2	81.134	5.287*
Error			
	175		
<hr/>			
Trust			
Relationship	1	301.862	22.495**
Interactivity	2	4.730	.353
Relationship x Interactivity	2	.267	.020
Error			
	175		

\*\* $p < .001$ , \* $p < .05$

Considering the aspect of the perceived attitude, the main effect was only significant for the type of relationship ( $F_{(1, 175)} = 11.138, p < .05$ , H1 supported), and the interaction effect of the type of relationship and interactivity was found ( $F_{(2, 175)} = 5.287, p < .05$ , H3 supported). However, no significant main effect was found for the perceived interactivity ( $F_{(2, 175)} = .518, p > .05$ ), therefore H2 was not supported. In the aspect of trust, only the main effect of the type of relationship was found ( $F_{(1, 175)} = 22.495, p < .001$ ).

The next three hypotheses proposed the same main and interaction effects of the two independent variables on the perceived trust of the corporation. Only the main effect of the type of relationship on trust was found ( $F_{(1, 175)} = 22.495, p < .001$ ) and H4 was supported. However, there were no significant main effect of interactivity ( $F_{(2, 175)} = .353, p > .05$ ) and interaction effect of relationship and interactivity ( $F_{(2, 175)} = .020, p > .05$ ) on trust. Hence, H5 and 6 were not supported.

H7 and 8 proposed the effects of medium credibility in the relationship between the two independent variables and the perceived attitude and trust. The error variance of the dependent variables was equal across groups (attitude  $F = 1.251, p = .287$ ; trust  $F = .530, p = .753$ ), and the summary of analysis is shown in Table 4.

Table 4. *Two-way MANCOVA for the perceived attitude and trust when controlling medium credibility and medium familiarity*

Source		df	MS	F
<i>Medium credibility</i>				
Attitude	Relationship	1	149.229	9.864*
	Interactivity	2	5.199	.344
	Relationship x Interactivity	2	73.474	4.857*
	Error	157		
Trust	Relationship	1	259.396	20.245**
	Interactivity	2	9.206	.718
	Relationship x Interactivity	2	1.157	.090
	Error	157		
<i>Medium familiarity</i>				
Attitude	Relationship	1	171.645	11.124*
	Interactivity	2	8.264	.536
	Relationship x Interactivity	2	78.252	5.071*
	Error	157		
Trust	Relationship	1	292.699	21.967**
	Interactivity	2	5.484	.412
	Relationship x Interactivity	2	1.039	.078
	Error	157		

\*\* $p < .001$ , \* $p < .05$

When controlling medium credibility, the main effects of the type of relationship on attitude and trust were found (attitude  $F_{(1, 175)} = 9.864$ ,  $p < .05$ ,  $\eta^2_p = .054$ ; trust  $F_{(1, 175)} = 20.245$ ,  $p < .001$ ,  $\eta^2_p = .104$ ). On the other hand, the main effects of the level of interactivity on attitude and trust were not found (attitude  $F_{(2, 175)} = .344$ ,  $p > .05$ ,  $\eta^2_p = .004$ ; trust  $F_{(2, 175)} = .718$ ,  $p > .05$ ,  $\eta^2_p = .008$ ). The interaction effects of the type of relationship and the level of interactivity were only found on attitude ( $F_{(2, 175)} = 4.857$ ,  $p < .05$ ,  $\eta^2_p = .053$ ), but not on the trust ( $F_{(2, 175)} = .090$ ,  $p > .05$ ,  $\eta^2_p = .001$ ). Hence, H7 and 8 were partially supported.

Finally, H9 and 10 proposed the effects of the medium familiarity in the relationship between the two independent variables and the perceived attitude (see Table 4). When controlling medium familiarity, the main effects of the type of relationship on the attitude and trust were found (attitude  $F_{(1, 175)} = 11.124$ ,  $p < .05$ ,  $\eta^2_p = .060$ ; trust  $F_{(1, 175)} = 21.967$ ,  $p < .001$ ,  $\eta^2_p = .112$ ). On the other hand, the main effects of the level of interactivity on attitude and trust were not

found (attitude  $F_{(2, 175)} = .536, p > .05$ , partial eta squared = .006; trust  $F_{(2, 175)} = .412, p > .05$ ,  $\eta^2_p = .005$ ). The interaction effects of the type of relationship and the level of interactivity were only found on attitude ( $F_{(2, 175)} = 5.071, p < .05$ ,  $\eta^2_p = .055$ ), but not on the trust ( $F_{(2, 175)} = .078, p > .05$ ,  $\eta^2_p = .001$ ). Hence, H9 and 10 were partially supported.

## **Discussion**

Evidence from the experiment in this current study suggests that the relationship types (communal and exchange) of the messages on Twitter affects the audience's attitude toward a corporation as well as audience's trust in the corporation. Specifically, our data indicated that communal relationship messages had a more positive impact on the perceived attitude and trust than exchange relationship messages. On the other hand, our data did not show a significant main effect of the perceived level of interactivity on both attitude and trust toward a corporation.

In terms of the interaction effects of the two independent variables (relationship and interactivity), the effect was only found on the perceived attitude toward a corporation. When messages were designed to present communal relationships, the level of interactivity (between high and low) does not show impacts on attitude; while it has strong impacts on attitude when the messages present exchange relationships. This pattern remained same when we controlled the audiences' level of credibility and familiarity with Twitter.

The major theoretical implications of this current study are to extend relationship management perspective into online interactive communications. Scholars suggested that the concept of relationships should be a core domain in social psychology, marketing, or mass communication studies (Ferguson, 1984; Ledingham & Bruning, 1998). To expand their understanding about organization-public relationships, prior scholars suggested multiple-item scales to measure relationship outcomes (Ledingham & Bruning, 1998; Hon & Grunig, 1999), and Hung (2005) said the relationship outcomes can be differentiated by the type of relationships (communal and exchange relationships). Our results in this current study also showed that the relationship consequences (attitude and trust) were affected by the type of relationship. Particularly, it added supportive evidence that communal relationships are beneficial when building favorable relationships from a business communication context.

Another theoretical implication of this study is its expanded discussion on the effects of interactive media communications. Literature suggested dialogic and interactive dimensions of relationship management (Kent & Taylor, 1998, 2002; Ki & Hon, 2009), and scholars emphasized on the potentials of blog to enhance positive relationships between organizations and public (Sweetser & Metzgar, 2007). Our current study focused on the interactivity features of the online communication messages on Twitter. Our results did not reveal a main effect of the interactivity on the attitude or trust. However, it reveals an interaction effect of the relationship and interactivity on the attitude, which suggests that the effect of online communication should be explored together by both content and function of online communication messages.

Practically, although exchange messages did not turn out to have as much power as communal messages in building positive attitude and trust, the results indicated that the impact of exchange messages can be enhanced by the high level of interactivity, especially in regard to

enhancing attitude toward the corporation. In the high and medium conditions, this study manipulated the messages with the responses from the corporation for each individual customer as well as the promptness and frequencies of the responses. Our results indicated that customers would build positive attitude toward the corporation when they perceive that the company is actively engaged in two-way communication with their customers, especially in the exchange relationship condition. Moreover, the outcomes appeared quite consistent even when the effect of media credibility and familiarity were controlled. This may be interpreted in the following way; customers are affected by the content of the messages delivered by the company in forming their attitude and trust, no matter how much they trust Twitter as a medium or how familiar they are with its technical features and or the way of messages transfer.

Despite the theoretical and practical implications, some limitations exist in this study. The first limitation involved the effect of interactivity that was not tested on the actual Twitter page, instead, printed pages were used of the Twitter site. Therefore, although the manipulation check for the interactivity indicated that the subjects were able to identify the three different levels of interactivity, it is possible that they did not have the full interactive experience of it. Moreover, audiences' medium credibility and the perceived level of interactivity may vary depending on the types of media. In addition to Twitter (limited to 140 characters), the current communication message investigation should be expanded to other types of online media such as Facebook or mobile communication tools to generalize the results. These series of investigations will deepen our understanding of persuasive and informative roles pertaining to online communication.

## **References**

- Afzal, H., Khan, M. A., Rehman, K., Ali, I., & Wajahat, S. (2010). Consumer's trust in the brands: Can it be built through brand reputation, brand competence and brand predictability. *International Business Research*, 3(1), 43-51.
- Anderson, J. C., Gerbing, D. W., & Hunter, J. E. (1987). On the assessment of unidimensional measurement: Internal and external consistency, and overall consistency criteria. *Journal of Marketing Research*, 24, 432-437.
- Boulding, W., & Kirmani, A. (1993). A consumer-side experimental examination of signaling theory: Do consumers perceive warranties as signals of quality? *Journal of Consumer Research*, 20(1), 111-123.
- Broom, G. M., & Dozier, D. M. (1990). *Using research in public relations: Applications to program management*. Englewood Cliffs, NJ: Prentice-Hall.
- Clark, M. S., & Mill, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology*, 37(1), 12-24.
- Comscore (May 2007). Sites for social butterflies. Retrieved on September 14, 2010, from [http://www.usatoday.com/tech/webguide/2007-05-28-social-sites\\_N.htm](http://www.usatoday.com/tech/webguide/2007-05-28-social-sites_N.htm).
- Das, A. (2010). Facebook and nonprofit organizations: A content analysis. Presented at the annual meeting of the International Communication Association, Singapore, Retrieved on October 15, 2010, from [http://www.allacademic.com/meta/p404146\\_index.html](http://www.allacademic.com/meta/p404146_index.html).
- Edelman & Intelliseek (2005a). Trust "MEdia": How real people are finally being heard: The 1.0 guide to the blogosphere for marketers & company stakeholders. Retrieved on September 14, 2010, from [edelman.com/image/insights/content/ISwp\\_TrustMEdia\\_FINAL.pdf](http://edelman.com/image/insights/content/ISwp_TrustMEdia_FINAL.pdf).
- Edelman & Intelliseek (2005b). White papers: Talking from the inside out: The rise of employee bloggers. Retrieved on September 14, 2010, from [edelman.com/image/insights/content/Edelman-Intelliseek\\_Employee\\_blogging\\_White\\_Paper.pdf](http://edelman.com/image/insights/content/Edelman-Intelliseek_Employee_blogging_White_Paper.pdf).
- Edman, H. (2010). Twittering to the top: A content analysis of corporate tweets to measure organization-public relationships. Unpublished Master's thesis, The Louisiana State University.

- Ferguson, M. A. (1984). Building theory in public relations: Interorganizational relationships, paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication. Gainesville, FL.
- Finn, T. A. (1998). *A conceptual framework for organizing communication and information systems*. Paper presented to the International Communication Association, Jerusalem, July 20-24.
- Flanagin, A. J., & Metzger, M. J. (2000). Perceptions of internet information credibility, *Journalism & Mass Communication Quarterly*, 77(3), 515-540. 515-540.
- Flanagin, A. J., & Metzger, M. J. (2007). The role of site features, user attributes, and information verification behaviors on the perceived credibility of web-based information. *New Media Society*, 9(2), 319-342.
- Fogg, B. J., Marshall, J., Kameda, T., Solomon, J., Rangnekar, A., Boyd, J., & Brown, B. (2001). Web credibility research: A method for online experiments and early study results. Proceedings of the conference on human factors in computing systems CHI 2001 extended abstracts. ACM Press, New York, 295-296.
- Fortin, D. R., & Dholakia, R. R. (2005). Interactivity and vividness effects on social presence and involvement with a web-based advertisement. *Journal of Business Research*, 58, 387-396.
- Gaudin, S. (January 26, 2010). Twitter now has 75M users; most asleep at the mouse. *Computerworld*. Retrieved on October 9, 2010, from [http://www.computerworld.com/s/article/9148878/Twitter\\_now\\_has\\_75M\\_users\\_most\\_asleep\\_at\\_the\\_mouse](http://www.computerworld.com/s/article/9148878/Twitter_now_has_75M_users_most_asleep_at_the_mouse).
- Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-commerce and the importance of social presence: Experiments in e-products and e-services, *Omega*, 32(6), 407-424.
- Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates*. Garden City, NY: Anchor.
- Grunig, J. E. (1993). Image and substance: From symbolic to behavioral relationships. *Public Relations Review*, 19, 121-139.
- Grunig, J. E., & Grunig, L. A. (1999). Does evaluation of PR measure the real value of PR? Jim & Lauri Grunig's research. *PR Reporter*, 41(35), 4.

- Ha, L., & James, E. L. (1998). Interactivity reexamined: A baseline analysis of early business web sites. *Journal of Broadcasting & Electronic Media*, 42(4), 457-474.
- Henning-Thurau, T., Wiertz, C., & Feldhaus, F. (2014). Does Twitter matter? The impact of microblogging word of mouth on consumers' adoption of new movies. *Journal of the Academy of Marketing Science*, 43(3), 375-394.
- Herrera, P., & Celaya, P. (2006). *Los Blogs en la comunicación empresarial en España: Últimas tendencias*. Madrid: Grupo BPMO.
- Hon, L. C., & Grunig, J. E. (1999). *Measuring relationships in public relations*. Gainesville, FL: Institute for Public Relations.
- Honey, C., & Herring, S. C. (2009). Beyond microblogging: Conversation and collaboration via Twitter. Proceedings of the 42nd Hawaii International Conference on System Sciences.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and Persuasion*. Yale University Press, New Haven, Conn.
- Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *The Public Opinion Quarterly*, 15(4), 635-650.
- Hung, C. F. (2005). Exploring types of organization-public relationships and their implications for relationship management in public relations. *Journal of Public Relations Research*, 17(4), 393-426.
- Hutton, J. G., Goodman, M. B., Alexander, J. B., & Genest, C. M. (2001). Reputation management: The new face of corporate public relations? *Public Relations Review*, 27, 247-261.
- Jansen, B. J., Zhang, M., Sobel, K., & Chowdury, A. (2009). Twitter power: Tweets as electronic word of mouth. *Journal of the American society for information science and technology*, 60(11), 2169-2188.
- Java, A., Song, X., Finin, T., & Tseng, B. (2009). *Why we twitter: An analysis of a microblogging community*. Advances in web mining and web usage analysis, 5439, 118-138.
- Johnson, T. J., & Kaye, B. K. (2004). Wag the blog: How reliance on traditional media and the internet influence credibility perceptions of weblogs among blog users. *Journalism & Mass Communication Quarterly*, 81(3), 622-642.

- Johnson, T. J., & Kaye, B. K. (2009). In blog we trust? Deciphering credibility of components of the internet among politically interested internet users. *Computer in Human Behavior*, 25(1), 175-182.
- Johnson, T. J., Kaye, B. K., Bichard, S. L., & Wong, W. J. (2008). Every blog has its day: Politically-interested internet users' perceptions of blog credibility. *Journal of Computer-Mediated Communication*, 13(1), 100-122.
- Kapco, M. (2015). 7 Staggering social media use by-the-minute stats. Retrieved December 23, 2015, from <http://www.cio.com/article/2915592/social-media/7-staggering-social-media-use-by-the-minute-stats.html>
- Kelleher, T. (2009). Conversational voice, communicated commitment, and public relations outcomes in interactive online communication. *Journal of Communication*, 59, 172-188.
- Kelleher, T., & Miller, B. M. (2006). Organizational blogs and the human voice: Relational strategies and relational outcomes, *Journal of Computer-Mediated Communication*, 11(2), 395-414.
- Kelly, H. H., & Stahelski, A. J. (1970). Social interaction basis of cooperators' and competitors' beliefs about others. *Journal of Personality and Social psychology*, 16, 66-91.
- Kensicki, L. J. (2003). Building credibility for non-profit organizations through webpage interface design. *Journal of Visual Literacy*, 23(2), 139-162.
- Kent, M. L. (2008). Critical analysis of blogging in public relations. *Public Relations Review*, 34, 32-40.
- Kent, M. L., & Taylor, M. (1998). Building dialogic relationship through the world wide web. *Public Relations Review*, 24, 321-334.
- Kent, M. L., & Taylor, M. (2002). Toward a dialogic theory of public relations. *Public Relations Review*, 28, 21-37.
- Ki, E. J., & Hon, L. (2009). A measure of relationship cultivation strategies. *Journal of Public Relations Research*, 21 (1), 1-24.
- Kim, A. J., & Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, Retrieved on January 18, 2012, from <http://dx.doi.org/10.1016/j.jbusres.2011.10.014>.

- Kim, D., Kim, J. H., & Nam, Y. (2014). How does industry use social networking sites? An analysis of corporate dialogic uses of Facebook, Twitter, YouTube, and LinkedIn by industry type. *Quality & Quantity*, 48(5), 2605-2614.
- Kiousis, S. (2002). Interactivity: A concept explication. *New Media Society*, 4(3), 355-383.
- Lariscy, R. W., Avery, E. J., Sweetser, K. D., & Howes, P. (2009). An examination of the role of online social media in journalists' source mix. *Public Relations Review*, 35, 314-316.
- Lau, G. T., & Lee, S. H. (1999). Consumers' trust in a brand and the link to brand loyalty. *Journal of Market Focused Management*, 4, 341-370.
- Ledingham, J. A., & Bruning, S. D. (1998). Relationship management in public relations: Dimensions of an organization-public relationship. *Public Relations Review*, 24 (1), 55-65.
- Lenhart, A., & Fox, S. (2006). Bloggers: A portrait of the internet news storytellers. *Pew Internet & American Life Project*, 1-25.
- Linskold, S. (1978). Trust development, the GRIT proposal and the effects of conciliatory acts on conflict and cooperation. *Psychological Bulletin*, 85(4), 772-793.
- Linville, D. L., McGee, S. E., & Hicks, L. K. (2012). Colleges' and universities' use of Twitter: A content analysis. *Public Relations Review*, 38(4), 636-638.
- Martin, K. N., & Johnson, M. A. (2010). Digital credibility and digital dynamism in public relations blogs. *Visual Communication Quarterly*, 17(3), 162-174.
- Melican, D. B., & Dixon, T. L. (2008). News on the net: Credibility, selective exposure, and racial prejudice. *Communication Research*, 35(2), 151-168.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *The Journal of Marketing*, 58(3), 20-38.
- Morgan-Thomas, A., & Veloutsou, C. (2013). Beyond technology acceptance: Brand relationships and online brand experience. *Journal of Business Research*, Retrieved on January 18, 2012, from <http://dx.doi.org/10.1016/j.jbusres.2011.07.019>.
- Patzer, G. (1983). Source credibility as a function of communicator physical attractiveness. *Journal of Business Research*, 11, 229-241.

- Rafaeli, S. (1988). Interactivity: From new media to communication. Sage Annual Review of Communication Research: Advancing Communication Science, 16, 110-134.
- Remple, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationship. *Journal of Personality and Social Psychology*, 49(1), 95-112.
- Rheingold, H. (2008). Using participatory media and public voice to encourage civic engagement, in W. L. Bennett (Ed.), *Civic life online: Learning how digital media can engage youth* (pp. 97-118). Cambridge, MA: The MIT Press.
- Riemer, K., & Richter, A. (2010). Tweet inside: Microblogging in a corporate context. Paper presented 23rd Bled eConference eTrust: Implications for the individual, enterprises and society. Bled, Slovenia.
- Rogers, E. M. (1995). *Discussion of innovations* (4th ed.). NY: Free Press.
- Rotter, J. B. (1971). Generalized expectancies of interpersonal trust. *American Psychologist*, 26, 443-452.
- Schweiger, W. (2000). Media credibility-experience or image? A survey on the credibility of the world wide web in Germany in comparison to other media. *European Journal of Communication*, 15(1), 37-59.
- Shapiro, D., Sheppard, B. H., & Cheraskin, L. (1992). Business on a handshake. *Negotiation Journal*, 8(4), 365-377.
- Smith, B. G. (2010). Socially distributing public relations: Twitter, Haiti, and interactivity in social media. *Public Relations Review*, 36(4), 329-335.
- Sriram, B., Fuhry, D., Demir, E., Ferhatosmanoglu, H., & Demirbas, M. (2010). *Short text classification in Twitter to improve information filtering*. Paper presented at the annual ACM conference on research and development in information retrieval. Geneva, Switzerland.
- Statista. (2015). 80% of Twitter's users are mobile. Retrieved December 22, 2015, from <http://www.statista.com/chart/1520/number-of-monthly-active-twitter-users/>
- Steenkamp, J-B. E. M., & van Trijp, H. C. M. (1991). The use of LISREL in validating marketing constructs. *International Journal of Research in Marketing*, 8, 283-299.
- Sweetser, K. D., & Metzgar, E. (2007). Communicating during crisis: Use of blogs as a relationship management tool. *Public Relations Review*, 33, 340-342.

- Toth, E. (1995). *Interpersonal communication and organizational communication: Contributions to the study and practice of public relations*. Paper presented to the Speech Communication Association, San Antonio, TX.
- Twitter. (2015). Twitter usage/Company facts. Retrieved on December 22, 2015, from <https://about.twitter.com/company>
- Xifra, J., & Huertas, A. (2008). Blogging PR: An exploratory analysis of public relations weblogs. *Public Relations Review*, 34, 269-275.
- Yang, S. U., & Kang, M. J. (2009). Measuring blog engagement: Testing a four-dimensional scale. *Public Relations Review*, 35(3), 323-324.