Service encounter microblog word of mouth and its impact on firm reputation

Abstract

Purpose – It has now become a normal part of the consumption journey for consumers to share their positive and negative service encounters with firms on microblogs such as Twitter. This study examines the impact of SEMWOM (service encounter microblog word of mouth) on an important actor in the microblog domain—receivers of positive and negative valence SEMWOM. As such, this study aims to understand the comparative effects of positive and negative valence SEMWOM on perceptions of firms' reputation.

Design/methodology/approach – An experiment exposed 372 Twitter users to positive and negative valence SEMWOM about airlines. To determine whether changes in perception of firm reputation occurred on exposure to both positive and negative valence SEMWOM, participants' perceptions of a range of U.S. airlines were measured before and after exposure to the SEMWOM. To confirm the factors that influence the perception of reputation on such exposure, six structural equation models (SEMs) were crated to determine the comparative effects of positive and negative valence SEMWOM on three eWOM media: video, photo, and text.

Findings – Both positive and negative valence SEMWOM affect receivers' perceptions of airlines' reputations on exposure. Furthermore, the factors that influence perceptions of reputation on exposure to SEMWOM vary depending on valence and type of media contained in a Tweet.

Originality/value – Although consumers now routinely share their positive and negative service encounters with brands on microblogs, scant research has examined receivers of positive and negative valence SEMWOM, important actors in the microblog domain. This study addresses this research gap by empirically investigating the impact of both positive and negative valence SEMWOM on receivers' perceptions of firm reputation on exposure to it.

Keywords Service encounter, social media, airline industry, e-wom

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Paper type Research paper

Introduction

The advent of customers sharing their service encounters with firms through social media has

received a tremendous amount of media coverage over the last few years. From a video of Dr.

David Dao being forcibly removed from a United Airlines flight for refusing to give up his seat

(Bowerman and Aulbach, 2017), to a family being escorted off of a Southwest airlines flight due

to an unruly child (Fearnow, 2018), consumers increasingly share their positive and negative

service encounters with firms on social network sites such as Twitter (Abney *et al.*, 2017). They

do so via mobile-empowered devices and a range of user-generated content (UGC) via text,

photos and videos. Firms therefore have a tremendous opportunity to not only engage back with

those that mention them, but they must also be wary of negative mentions specifically as they

could be potentially damaging to their reputations (Berthon *et al.*, 2012; De Maeyer, 2012;

Cheng and Loi, 2014; Grégoire *et al.*, 2015; Rauschnabel *et al.*, 2016; Stevens *et al.*, 2018). In

addition, and perhaps just as important, positive mentions have the propensity to affect brand

outcomes such as increasing sales (Wang *et al.*, 2015; Marchand *et al.*, 2017).

A stark reality, however, is the limited understanding of the impact that exposure to

service encounters in microblogs such as Twitter has on a very important actor within the

microblog domain – receivers of positive and negative valence SEMWOM (service encounter

microblog word of mouth). Through SEMWOM, receivers of Tweets are exposed to information

about firms through the Twitter users that they follow. Whether complaining about the annual

release of Starbucks' pumpkin spice latte in the hot summer months (Kooser, 2018), or bank

account failures when debit cards do not work properly (Rumney, 2018), consumers are

increasingly telling others about their service encounters on platforms such as Twitter. As a

result, firms have transformed their customer service operations with Twitter response teams. For

example, with approximately 2,500–2,600 Twitter mentions every day, JetBlue, a U.S.-based

airline, has a specialized Twitter social media team comprised of customer service agents, corporate communications and marketing to not only engage with customers in the environment in which they are choosing to contact them, but also to manage the volume of tweets they receive each day (Kolowich, 2014).

Such investment and transformation, however, beg several questions. For example, what is really known about the impact that positive and negative SEMWOM has on the receivers of this information? Does it influence perceptions of the firms' reputations that are portrayed? Is there cause for concern when negative service encounters are shared? Perhaps as important, are positive mentions about service encounters influential? What factors of a shared service encounter in microblogs are particularly salient to a change in perception of a firm's reputation if one does occur? Exploring this question is important, as a firm's reputation has been linked to sound financial performance and sustained competitive advantage (Walker, 2010).

Understanding the influence of SEMWOM on firm reputation is therefore of paramount importance, yet there is a dearth of research that examines service encounters shared in microblogs specifically, and their impact on perceptions of firm reputation. We do so in this study with the operationalization of quantitative research in the form of an online, within-subject experiment in which 372 Twitter users were exposed to positive and negative valence SEMWOM about airlines. To determine whether a change in perception of firm reputation occurred upon exposure to both positive and negative valence SEMWOM, we measured participants' perceptions of a range of U.S. airlines before and after exposure to tweets. To confirm the factors that influence a change in perception of reputation on such exposure, we created six structural equation models (SEMs) to determine the comparative effects of positive and negative valence SEMWOM among three eWOM media: video, photo, and text.

Literature review

Importance of a firm's reputation

A firm's reputation is a stakeholder's overall evaluation of a firm that is based on experiences, or any other form of communication and interaction (direct or indirect), that provides information about the firm's actions and/or a comparison with the actions of other leading rivals (Gotsi and Wilson, 2001). For the firm, a positive and strong reputation helps it to market services (Lewis and Booms, 1983), provide an optimal marketplace position (Walker, 2010), mitigate threats, and exploit opportunities (Argenti and Druckenmiller, 2004). In addition, a strong, positive reputation can be called upon as a strategic resource to create a competitive advantage (Abratt and Kleyn, 2012), and has also been linked to sound financial performance, customer loyalty, and customer commitment and trust (Walker, 2010).

For consumers, a firm's reputation can help them make decisions about firms' products and services, especially when confronted with a range of products and services that are similar in price (Greyser, 1999). It does so by providing a frame of reference, thereby reducing the complexity of information processing, and providing the ability to apply heuristics when consumers are making decisions about products and services (Poiesz, 1989). Given its strategic importance for the firm, and the value it provides to consumers, a firm's reputation must therefore be consistently monitored and protected. Doing so today presents unique challenges for firms however as consumers share their positive and negative experiences of them in the form of electronic word of mouth (eWOM) and UGC, increasing the scale and reach that individuals have to potentially influence reputation.

eWOM and UGC

In platforms such as Twitter, service encounters are shared through word of mouth (WOM) in the form of UGC. WOM is a powerful source of information for consumers and has long been

acknowledged as more influential than firm-controlled communications (Allsop *et al.*, 2007) and

as having the potential to affect firm reputations (Allsop *et al.*, 2007; Sweeney *et al.*, 2012).

Generally associated with one-to-one, non-commercial information that consumers share with

others about their experiences with firms (Daugherty and Hoffman, 2014), the construct has

evolved to include that shared electronically (eWOM) and on various platforms (Marchand *et al.*,

2017; Pasternak *et al.*, 2017). UGC shared on social media sites such as Twitter concerns content

that has been created outside of professional routines and practices by users of a site or

community (Kaplan and Haenlein, 2010). In the service encounter context, UGC in the form of

eWOM shared on microblogs can present unique challenges to firms.

SEMWOM and reputation

One of the key aspects that firms must contend with in the digital environment today is the risk

posed to firms' reputations by social network site users. Research demonstrates that eWOM is a

powerful source of information that can potentially be debilitating to firms who are faced with

managing their reputations in this domain (Breazeale, 2009; Kaplan and Haenlein, 2010;

Fournier and Avery, 2011; Siano *et al.*, 2011; Berthon *et al.*, 2012; Cheng and Loi, 2014;

Pasternak *et al.*, 2017). This is due to the fast-moving nature of social media and the inherent

potential to reach many as WOM in this realm (eWOM), has been transformed with regard to

reach and scale (Breazeale, 2009). As such, managing a firm's reputation has become a

significant challenge for firms in such environments as consumers share the good, bad and ugly

of their experiences with firms as a normal part of their consumption journey. It is thus important

for firms to understand the potential impact that various forms of WOM can have on their

reputations and take actions to manage it. This continues to be a challenge, however, as a limited

amount of research focuses on the type of environment and the context in which eWOM is

shared. For example, recent literature has begun to acknowledge the various social media

platforms available and the impact that eWOM can have within these platforms (see Marchand *et al.*, 2017; Pasternak *et al.*, 2017), but there is still a need to also consider the context and the

environment in which eWOM is shared. We thus delineate SEMWOM from other types of

eWOM.

With regard to the context, service encounters are primarily social interactions between

the service provider and the service receiver (Henkel *et al.*, 2017). Hence, the service component

of these encounters is the major element of the offering – regardless of whether the core element

of the offering is a material good or a service (Solomon *et al.*, 1985). Accordingly, during a

service encounter, the service provider's behavior is crucial as it can influence consumers'

evaluations of firms' reputations (Sengupta *et al.*, 2015). In today's environment in which

consumers are sharing their positive and negative service encounters with brands as they are

actively consuming them, a unique context is presented when compared to other forms of

eWOM such as review sites such as TripAdvisor or Yelp. This is due to the nature of the

environment in which service encounters are shared within microblogs. Microblogs are social

media sites that enable users to send and read very short messages with a restriction on the

number of characters that can be used in the message. Microblogging applications not only

include social media sites such as Twitter in the United States and Weibo in China, but also

include social media applications that have microblogging features called "status updates" (e.g.

status updates on Facebook and LinkedIn) (Stieglitz and Dang-Xuan, 2013). The most popular

microblogging site is Twitter, which allows users to send tweets limited to 280 characters, also

referred to as micro-sharing, micro-updating, "twittering," and "tweeting" (Jansen *et al.*, 2009;

Hennig-Thurau *et al.*, 2015). Consumers, celebrities, and political figures increasingly use

Twitter to share stories, thoughts, and perceptions.

In addition, microblogs have been identified as a unique environment in which

information is pushed to consumers, rather than other forms of eWOM such as review sites in

which it is pulled (Marchand *et al.*, 2017). It is therefore inherently unique due to the limitation

on the amount of information one can share and the potential to spread information very quickly

(Hennig-Thurau *et al.*, 2015). Further, it has been highlighted within the literature that

microblogs such as Twitter present a unique environment in which users can immediately share

their positive and negative experiences with brands as an integral part of their consumption

journey (Hennig-Thurau *et al.*, 2015, Marchand *et al.*, 2017). More data are required however to

understand the impact of various types of WOM *and* in the context in which they are shared.

Hence, we focus our study on service encounter WOM shared via microblogging, or SEMWOM

in this study, and commence with the following hypotheses:

H1. Exposure to positive valence SEMWOM will positively affect firm reputation

H2. Exposure to negative valence SEMWOM will negatively affect firm reputation

Factors that influence eWOM effectiveness

Although several assertions have been made with regard to the potential impact that eWOM

about brands can have on a firm's reputation, there is a dearth of research on the SEMWOM

factors that influence a change in perception of reputation from the receiver's perspective. There

has however been research conducted to explore the factors of eWOM that are particularly

important to other brand outcomes, and this literature is explored next.

Information usefulness. Information usefulness, or argument quality/strength, has been

shown to influence the attitudes of receivers of eWOM (Berger and Milkman, 2012; Cheng and

Loi, 2014; Teng et al., 2014b). Hence, as Twitter users are exposed to a range of content in a

fast-moving environment, it would be expected that the usefulness of SEMWOM could influence

a receiver's evaluation of reputation upon exposure. Thus, we include a variable that represents

this attribute and test the following hypothesis:

H3. The extent to which receivers find SEMWOM to be useful will influence their

evaluation of a firm's reputation

eWOM credibility. The credibility of information (Cheung et al., 2009; Yusuf et al.,

2018) also plays an important role in eWOM effectiveness. eWOM credibility is how truthful or

believable the eWOM recipient finds the eWOM to be (Cheung et al., 2009) and is seen to be

more credible than organizational messages (Kumar et al., 2017; Pasternak et al., 2017) as they

have passed through a filter of 'people like me' (Allsop et al., 2007). One could posit that

'SEMWOM message credibility' is of importance within a microblogging environment (e.g. if

the receiver of SEMWOM finds the message to be believable and trustworthy, a change in a

reputation could occur depending on the argument being made). Thus, we include a variable

representing SEMWOM credibility in the model and hypothesize the following:

H4. The extent to which receivers find SEMWOM to be credible will influence their

evaluation of a firm's reputation

Emotions. The emotional aspect of eWOM is an area that has limited empirical research,

yet has been acknowledged to require further exploration (Kim and Gupta, 2012; Stieglitz and

Dang-Xuan, 2013; Standing et al., 2016). It is thus a burgeoning area of research with a few

notable studies. Focusing on Twitter specifically, Stieglitz and Dang-Xuan (2013) found that

emotionally charged Twitter messages were retweeted more often and more quickly compared to

neutral ones. In addition, Standing et al. (2016) undertook a case study of a Swedish firm and its

communication campaigns for a two-year period. The researchers monitored comments after

three campaigns on Kickstarter, Twitter and Facebook and their findings suggest that users

expressing emotion were faster at spreading eWOM to their community. As Twitter users share

their positive and negative service encounters with firms as they carry out their routine

transactions, it is plausible that the emotions felt by the receivers of these shared service

encounters would play a role in receivers' evaluation of a firm's reputation. We include variables

representing these felt emotions and test the following hypothesis:

H5. The emotions receivers feel upon exposure to SEMWOM will influence their

evaluation of a firm's reputation

Cognitive information processing. The way in which eWOM receivers process

information has been seen as an enabler of effective eWOM through attitude change (Cheung

and Thadani, 2012; Teng et al., 2014a). The elaboration likelihood model was a model created

by Petty and Cacioppo (1980) and posits that the attitude formation process is dependent upon

the extent to which message receivers elaborate, or think about, issue-relevant arguments within

a persuasive communication. When receivers of a persuasive communication possess a relatively

high motivation to process information, they employ the central route. The central route requires

more elaboration, or thinking and consideration of issue-relevant arguments. As Chu and Kamal

(2008, p. 28) stated, "in this condition, people combine and integrate issue-relevant information

into an overall evaluation reaction." The peripheral route requires less cognitive processing and

includes such cues as source characteristics or the level of expertise the information source is

perceived to have.

In a fast-moving microblog environment such as Twitter, it is difficult to know how

receivers of messages process SEMWOM and it is therefore asserted here that a good model

should include both a central route (giving an indication of a motivation to process more

information) and a peripheral route (giving an indication of less thinking and more heuristics involved with regard to information processing) variables. The model created for this study includes both with the expectation that doing so will increase the explanatory power of any outcomes. In addition, we test the following hypothesis:

> *H6.* Upon exposure to SEMWOM, the likelihood of processing further issue-relevant information will influence receivers' evaluation of a firm's reputation

Source style. Source style is a relatively new feature of eWOM that has been highlighted as affecting eWOM effectiveness and has had very little research to date (Lin et al., 2012; Teng et al., 2014b; Wang et al., 2015). It has been noted that online reviews within social media can be the combination of text and visual cues and that visual information exerts a significant impact on users' online information acceptance (Teng et al., 2014b). In relation to eWOM effectiveness, recent studies have come to the fore and demonstrated the impact of source style. One study demonstrated that visual information such as photographs can be more influential than text alone (Lin et al., 2012), and another demonstrated that benefit-centric reviews have more impact than attribute-centric reviews (Wang et al., 2015). In the microblog Twitter, one can be exposed to a tweet with text only, a tweet with a photograph and a tweet with a video. There is however, limited research regarding the impact that source style has within microblogs such as Twitter. Therefore, we hypothesize:

> *H7.* The factors that influence receivers' evaluation of a firm's reputation upon exposure to SEMWOM with visual information will have more of an impact on reputation than SEMWOM with text only

Conceptual model

In the context of positive and negative valence SEMWOM, and any influence it has on receivers' evaluation of reputation after exposure, eleven different dependent variables were created for the

model based on the categories identified in the literature: *SEMWOM Message Usefulness;*

SEMWOM Message Credibility; *SEMWOM Issue Involvement* and eight *SEMWOM Emotions*.

With regard to emotions, and as a result of pilot tests, a slightly modified version of Plutchik's

(2001) eight basic emotions were used. The emotions used included: joy, sadness, anger,

approval, disgust, fear, surprise and not surprised. The impact of 'source style' was examined

with the inclusion of the various types of tweets available at the time of the study –tweets with

text only, tweets with a video and tweets with photographs. The model includes both peripheral

and central route persuasion variables. A depiction of the conceptual model is provided in Figure

1.

[INSERT FIGURE 1 HERE]

Methodology

Methodology selection

We undertook quantitative research in the form of an online quasi-experiment with a

questionnaire through Qualtrics. Although recent studies have focused on examining eWOM in

microblogs and its effectiveness through aggregate data capture (Stieglitz and Dang-Xuan, 2013;

Hennig-Thurau *et al.*, 2015; Marchand *et al.*, 2017), research on receivers of SEMWOM and

whether an individual instance of SEMWOM can influence their perceptions of a firm's

reputation is scarce. In addition, only limited research has examined receivers in particular and

the factors related to SEMWOM that influence a receiver's evaluation of a firm's reputation after

exposure. As such, we operationalized a within-subject, pre-test/post-test experiment design

because of the nature of the microblog environment and the way receivers are exposed to

SEMWOM.

    As the main overarching objective of this study was to explore the microblog environment

and the factors that influence a receiver's evaluation of firm's reputation upon exposure to

SEMWOM, it was determined that a focus on the airline industry would be pertinent. It has become

standard industry practice for the airline industry to engage with customers via social media, and

specifically through Twitter in the United States (Wolfe, 2018). Thus, with regard to the high

percentage of Twitter users located in North America, the country chosen for this research was the

United States.

Research has demonstrated the varying effects of environments (Marchand *et al.*, 2017)

on eWOM's effectiveness and the uniqueness of microblogs in the broader eWOM context

(Hennig-Thurau *et al.*, 2015). We thus designed the experiment not only to simulate what would

happen in an actual Twitter environment, but also to determine receivers' perceptions of a firm's

reputation both before and after exposure to SEMWOM. This form of experiment enabled us to

glean useful insights into receivers of SEMWOM and its impact on reputation, compared to an

aggregate data capture in which insights may have been more limited.

Both positive and negative valence eWOM have been demonstrated to play a key role in

eWOM effectiveness. Some studies have demonstrated that negative valence eWOM can have a

stronger impact on eWOM outcomes than positive eWOM (Teng *et al.*, 2014b; Hennig-Thurau

et al., 2015), while others have demonstrated positive valence eWOM to be more effective

(Wang *et al.*, 2015). As such, both positive and negative valence SEMWOM were incorporated

in this study to explore the role of valence in the Twitter environment.

With regard to the population of interest, the Pew Research Center (2018) indicates that

the highest percentages of Twitter users (40%) are between the ages of 18 and 29 years, followed

by 30–49 years (27%). In addition, the United States is one of the most prominent locations of

Twitter users, with 57% having some college education. Thus, we identified college-educated

Twitter users between the ages of 18 and 49 years, who resided in the United States, as the

population of interest. We chose the access panel Prolific Academic as the sampling frame. Use

of the panel facilitated flexible pre-screening and enabled us to operationalize a study comprised

of 372 male (212) and female (160) college-educated Twitter users between the ages of 18-24

years (62%), 25-34 years (31%), 35-44 years (6%) and 45-54 years (1%).

Operationalization of the experiment

   Step 1: Initial evaluation of the airlines. The experiment was comprised of three steps to

meet the objectives of the study. First, we asked participants to provide an evaluation of eight

U.S.-based airlines' reputations by means of the Net Promoter Score (NPS) question (we provide

a detailed explanation of the use of this question as a proxy for firm reputation in the next

section). Participants rated how likely they would be to recommend these airlines to a friend or

colleague. We used the ratings firm Skytrax to determine which airlines to include in the

experiment. As we wanted to obtain a composite representation of study participants' overall

evaluation of the airlines included in steps 2 and 3, we decided that airlines rated as three stars,

or *average*, would be optimal to curtail the variable effects of familiarity and involvement with

the airlines. Skytrax (2018) describes 3-star airlines as "airlines delivering a fair quality

performance equating to an industry 'average' of acceptable product and service standards." The

rationale for this step was not only to capture participants' evaluations of airlines rated as

average, but also to minimize the risk of recalling their answers later after exposure to the

SEMWOM and being asked the NPS question again. Airlines included in the experiment were

Delta, American, United, Southwest, Hawaiian and US Airways.

   Step 2: Exposure to SEMWOM. Next, all participants were asked to imagine that they

were exposed to the tweets shown in the experiment as they appear in their Twitter timeline.

Experiment participants were then exposed to six actual positive and negative valence

SEMWOM (examples can be seen in the Appendix, Figures A1-A3) for six of the airlines

included in step 1, inclusive of the different types of tweets (i.e. tweet with text, tweet with

photograph, and tweet with video). Twitter's Advanced Search feature was used to find tweets

that were about service encounters with airlines, non-commercial in nature, positive and negative

in valence, and in the United States. To confirm the valence of tweets, we searched for tweets

that had smiling or frowning face emoticons and emotional words that could be considered

positive or negative in valence (Kim and Gupta, 2012). Two pilot studies enabled us to further

confirm the valence of the tweets, to make any necessary changes to the experimental design,

and determine the average amount of time for participants to take part in the experiment. We

reduced carry-over effects, or order effects, by randomizing the order of presentation of the types

of tweets (Field and Hole, 2002).

 Step 3: Questionnaire. In the third step, the participants answered a series of questions

about the tweets, including a follow-up NPS question. We employed a range of scales to assess

the factors that influenced receivers' evaluations of the airlines' reputations after exposure to the

SEMWOM. In addition, we randomized the order of questions in our questionnaire consistent

with recommendations of Gehlbach and Barge (2012) to avoid anchoring issues related to

individual constructs. The Likert scale used for these ran from 1 to 5.

Measures

We measured participants' perceptions of the airlines' reputations at two points: before exposure

to the SEMWOM and after through the use of the NPS question. Although researchers have

questioned the validity of the NPS to measure company profitability and brand loyalty (Grisaffe,

2007; Keiningham *et al.*, 2007), we chose the NPS to represent firm reputation for three reasons.

First, we used the NPS question to represent reputation to obtain a snapshot inference of

reputation both before and after participants were exposed to the tweets due to its extensive use

in the practitioner domain. Developed by the consulting firm Bain & Company, Robert

Reichheld and Sametrix, the NPS question was designed as a simple metric to help firms

understand their propensity for future growth and to manage relationships with their customers

(Bain, 2020). Since its inception in 2003, it has not only been adopted by a range of firms,

including Delta and Southwest Airlines (Bain, 2020), but is also regularly used as an industry

benchmark for firms' reputations. For example, firms with high NPS scores have been

referenced as world-class companies (Hyken, 2018) and those which consumers consider the

'best of the best' (Griffith, 2018). Sametrix, in describing the use of the question, instructs

practitioners to "use your NPS as the key measure of your customers' overall perception of your

brand" by using a 0–10 scale to ask how likely is it that you recommend [brand] to a friend or

colleague" (Satmetrix, 2019).

Second, assessing reputation requires a degree of cognitive effort and evaluation by

receivers, and microblogs such as Twitter are unique environments in which users are exposed to

information at an "unprecedented" speed (Hennig-Thurau *et al.*, 2015). Having one question

enabled us to more closely simulate what would happen in real time in the Twitter environment

by keeping the experiment as brief as possible while also measuring any changes to participants'

perceptions of firms' reputations. The NPS question suited these requirements, as the NPS scale

consists of 10 points. We examined SEMWOM's impact on receivers' perceptions of reputation

by assessing whether there was any movement in the scale before and after exposure to the

tweets. We did so by employing paired-samples t-tests. Third, other disciplines recognize the

utility of one question in terms of brevity and simplicity and of making fewer demands on

respondents; it is also reliable and valid (Bowling, 2005).

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In addition to participants' evaluations of the airlines' reputations, we measured other

constructs that influence eWOM effectiveness. To keep the experiment as brief as possible, we

employed a combination of single-item and modified multi-item scales to explore the factors that

influence receivers' evaluation of the airlines after exposure to the SEMWOM. Table A.1 in the

Appendix provides the constructs measured and the scale and non-scale items.

Results

Paired-samples t-test results

To understand which variables influence receivers' evaluation of firms' reputation upon

exposure to SEMWOM, it was first necessary to understand whether a change in the perception

of the airline's reputations had actually occurred and, if so, to what extent. We selected the t-test

as the measurement instrument because the same participants were asked the same NPS question

on two occasions, before and after exposure to the tweets. Employing a paired-samples t-test

enabled us not only to determine whether there was an actual change in perception of reputation,

but also to understand the extent of the change. It was also an applicable method to use because

the data was normally distributed, independent, and interval based (Tabachnick and Fidell,

2013).

As Table I shows, the significance value of the t-tests was .000 ($p < .01$), indicating a

significant difference between the NPS score given by experiment participants both before and

after exposure to the positive and negative valence SEMWOM (supporting H1, H2). Further,

Table I shows that the initial and final NPS scores are correlated. This finding confirms the

observation that firm reputation is at least somewhat robust to positive or negative SEMWOM. A

pairwise test of the differences shows that the change in NPS score within each study participant

is statistically significant. In addition, the signs of these changes are in the anticipated direction.

Finally, the results show that H7 was not supported, as the impact of SEMWOM with visual

information on reputation was not consistently greater than SEMWOM without it. Next, we move to the structural equation models.

[INSERT TABLE I HERE]

PLS-SEM results

Six PLS-SEM models were created to determine the factors that influenced receivers' evaluation of the airlines' reputations after exposure to the SEMWOM. Eleven different independent variables, demonstrated in Table A.1 in the Appendix, were tested in the models based on the literature review on variables that influence eWOM effectiveness.

To assess the validity of the measurement models, the methods detailed by Wong (2013) and Hair *et al.* (2016) were employed. Discriminant validity was established when the factor loading coefficients for the items that constituted each latent variable were greater than their cross-loadings on alternative latent variables. The cross loadings for the models were assessed and all six models fit the criteria. Convergent validity was established as the average variance explained (AVE) by the multiple indicators of each latent variable was greater than 0.5. Internal consistency reliability was established, as all of the composite reliability coefficients for the latent variables were > 0.6. These are demonstrated in Tables A.2 and A.3 in the Appendix.

We estimated the statistical significance of each path coefficient (β) through bootstrapping. We randomly sampled the raw data 5,000 times and computed the mean of each β coefficient. To confirm the validity of our models, we use Cronbach's alphas and the composite reliability scores. These are demonstrated in Tables A.2 and A.3 in the Appendix.

Tables II and III display the significant predictors and hypotheses results of the factors that influence receivers' evaluation of reputation after exposure to SEMWOM of the six PLS-SEM structural models based on the data for the six tweets. To assess the comparative impact of

SEMWOM, we use the final NPS as our dependent variable and include the initial NPS score as an explanatory variable. If firm reputation as proxy by NPS is perfectly robust to this type of exposure, then we would find that all of the variation in the final NPS would be explained by the initial NPS. If firm reputation is perfectly fragile, then the initial NPS would have no impact in these models.

In the positive models, the initial NPS score is highly statistically significant in each model. Correspondingly, the relative size of its coefficient is large compared to the other variables. To further decompose the robustness of firm reputations, we compare this new PLS-SEM model to an OLS of the final NPS using only the initial NPS and intercept as variables. The coefficient of determination is shown in Panel B of Table II. By comparing the coefficients of determination, we find that the initial NPS explains roughly 14.7%, 12.4%, and 34.1% of the variation in the final NPS for the video, photo, and text information models, respectively. The other variables in our model explain an additional 25.2%-45.0% of the variation in the final NPS. A comparison of the SEMWOM constructs shows that they play a significant role. *SEMWOM Message Usefulness* and *SEMWOM Issue Involvement* were significant predictors in all three positive valence models (supporting H3, H6) while *SEMWOM Message Credibility* (supporting H4) was a significant predictor in two of the models (the photo and text only tweets). Emotions played a more limited role in predicting the firm's reputation after exposure to the positive valence SEMWOM with *joy* statistically significant across each model and *approval* statistically significant in the video model only (supporting H5). Finally, the effect size (R^2) indicated the proportion of the variance explained in the dependent variable by the predictor variables with the video at 0.520, the photo at 0.574 and the text only at 0.593.

[INSERT TABLE II HERE]

Next, we present the results of the negative valence PLS-SEM models. As indicated

previously, the initial NPS plays a statistically meaningful role for each type of tweet. To further

decompose the robustness of firm reputations, we compare this new PLS-SEM model to an OLS

of the final NPS using only the initial NPS and intercept as variables. The coefficient of

determination is shown in Panel B of Table III. By comparing the coefficients of determination,

we find that the initial NPS explains roughly 15.2%, 33.8%, and 17.5% of the variation in the

final NPS for the video, photo, and text information, respectively. The other variables in our

model explain an additional 14.7%-29.5% of the variation in the final NPS. Inconsistent with

findings for the positive valence results, *SEMWOM Message Usefulness*, *SEMWOM Message*

Credibility and *SEMWOM Issue Involvement* (supporting H3, H4, and H6) are significant in one

model only, the video, photo and text only tweets respectively. Again, inconsistent with the

positive valence results, *SEMWOM Emotions* (H5) played a more important role in predicting the

evaluation of a firm's reputation after exposure to the negative tweets. The emotions *approval*

and *disgust* were significant in the models with visual information (the video and photo), with

anger significant in the model with the most visual information (the video). The emotions *joy*

and *surprise* were significant in the model with no visual information (the text only tweet). The

effect size (R^2) indicated the proportion of the variance explained in the dependent variable by

the predictor variables with the video at 0.447, the photo at 0.485 and the text only at 0.366.

In each statistically significant case, the sign of the coefficient is in the expected direction

which confirms the findings in previous literature; however, we note that the interactions

between type of exposure (source style) and SEMWOM constructs have materially different

effects.

[INSERT TABLE III HERE]

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Discussion

Today's social media environment is one that is fraught with both risks and opportunities for

firms and their reputations. It is one in which people share their positive and negative service

encounters with firms as they carry out their normal, everyday transactions. As such, there has

been a growing reliance on social listening activities to help brand managers in their efforts to

both protect and enhance their reputations. Although this is the case, there has been a dearth of

research to understand the robustness of firms' reputations in specific social media environments

and in various contexts. In this study, we explored the impact SEMWOM could have on a firm's

reputation when receivers are exposed to positive and negative valence SEMWOM about

airlines. In addition, we explored the factors that influence receivers' perceptions of reputation

upon exposure to positive and negative valence SEMWOM.

Impact of positive and negative valence SEMWOM on reputation

A firm's reputation is a key strategic asset that is formed when stakeholders are directly or

indirectly exposed to information about the firm, or have direct or indirect experiences of a firm

(Gotsi and Wilson, 2001). Although numerous assertions have been made in the literature with

regard to the power of eWOM to influence firm outcomes (e.g. Berthon *et al.*, 2012; De Maeyer,

2012; Cheng and Loi, 2014; Grégoire *et al.*, 2015), there is a dearth of research on eWOM in

specific contexts and environments and its ability to influence perceptions of firm reputation.

The results from this study suggest that both positive and negative valence SEMWOM have an

impact on receivers' perceptions of firm reputation while source style (type of Tweet: video,

photo or text only) does not. Whether receivers were presented with a photo of a smiling flight

attendant serving a beverage during a Hawaiian Airlines flight, or text about a lack of apology

from American Airlines (see Appendix Figures A.1 and A.3), exposure to the service encounter

resulted in an increase in perception of reputation upon exposure to positive SEMWOM, and a

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decrease in perception upon exposure to negative SEMWOM. The findings in this study

therefore add to the extant literature on reputation with regard to the specific context (service

encounters) shared in specific environments (microblogs) with a particular source style (type of

SEMWOM).

Role of valence and route to persuasion in positive valence models

Valence (whether the SEMWOM was positive or negative in nature) and routes to persuasion

(central and peripheral) were examined in this study as both have been acknowledged in the

literature as affecting eWOM outcomes. With regard to the positive valence SEMWOM, the

three models demonstrated emphasis on both peripheral *(P)* and central (C) route persuasion

variables with *SEMWOM Issue Involvement (C)*, *SEMWOM Message Usefulness (P)*, *SEMWOM*

Credibility (P), and the emotions*(P) joy* and *approval* as significant predictors. These findings

are consistent with the literature and suggest that participants' need to process issue-relevant

information, the usefulness of the information conveyed in the SEMWOM, and whether or not

they found the SEMWOM to be believable and trustworthy all influence their evaluation of the

firm's reputation after exposure to the positive valence SEMWOM.

　　　With regard to the negative valence SEMWOM, peripheral route to persuasion variables

dominated in the form of emotions. This outcome could be explained by the nature of the

industry, the nature of the significant emotions and the influence of source style, or type of tweet.

Research has demonstrated that in some circumstances, negative WOM occurs more frequently

than positive WOM (Richins, 1984). The airline industry epitomizes this assertion as it is one in

which it has become common practice for customers to share their complaints on social media

(Wolfe, 2018). In addition, the airline industry has one of the lowest customer satisfaction scores

of all industries in the United States (Morgan, 2018). The negative information shared via

SEMWOM in this study may therefore have been more expected and accepted than the positive

SEMWOM. As such, the need to process more information, assess credibility, and information

usefulness were potentially not as important as emotional reactions when evaluating airlines'

reputations after exposure to the negative valence SEMWOM. The results from this study

therefore add to the extant literature on the role of valence of SEMWOM and the routes to

persuasion taken by receivers of it.

Role of emotions in the positive and negative valence models

The emotion joy dominated positive valence models. Emotions were examined in this

study as a result of acknowledgments in the literature that further research is required on eWOM

(Stieglitz and Dang-Xuan, 2013; Standing et al., 2016) and their importance in the practitioner

domain when conducting social listening. With regard to the positive valence models, the

emotion Joy was significant in all instances. This finding is consistent with research in the

advertising discipline and adds additional context to the microblog environment. For example,

upon exposure to advertisements with emotion-evoking stimuli, consumers are said to form

attitudes that are aligned with the nature of emotion linked to the firm in an advertisement

(Hasford et al., 2015). A form of emotional contagion takes place and the feeling conveyed in the

stimulus and the feeling felt by the person exposed to it converge (Hatfield et al., 1993). As the

emotion Joy was significant in all three positive valence models, and the reputation of the firm

increased after exposure to all three positive valence SEMWOM instances, the powerful effect of

the emotion joy has been demonstrated in this study and adds to the extant literature on emotions

in the eWOM context.

Several emotions were predominant in the negative valence models. With regard to the

significant emotions in the negative models, the high arousal emotions disgust and anger were

significant predictors in models with visual information (the video and photo), with low arousal

emotions joy and not surprised significant in the model without visual information (the text only

tweet). Research demonstrates that emotions generate various levels of psychological arousal or

activation. Anger and anxiety are associated with states of heightened arousal or activation,

while contentment and sadness are associated with low arousal or deactivation (Berger and

Milkman, 2012). Further, disgust has been associated with avoidance reactions (Morales et al.,

2012) and visceral repulsion (Shimp and Stuart, 2004), with the emotion eliciting an immediate

impulse to distance oneself.

As such, the findings in this study suggest that the complex visual cues offered by the

SEMWOM with video and a photo engendered a state of repulsion and a reactive state on the

route to persuasion and evaluation of the airlines' reputations, versus information processing,

message usefulness or credibility in the positive models. The SEMWOM with text only however

only had the low arousal emotions of joy and not surprised as significant predictors. This again

could be explained by the nature of the industry portrayed in the SEMWOM (i.e. what was

portrayed in the SEMWOM was expected and accepted and these emotions predicted the

evaluation of reputation upon exposure). These findings again add to the extant literature in the

context of service encounters shared in microblogs and research on emotions in the eWOM

context.

Cognitive information processing, credibility, and message usefulness are more

predominant in the positive context. An important finding of the study was that *SEMWOM Issue*

Involvement (cognitive information processing), SEMWOM Message Usefulness and *SEMWOM*

Credibility were more predominant predictors of reputation after exposure to SEMWOM in the

positive valence models than the negative valence models. These constructs were explored in this

study as the literature espoused their influence on eWOM outcomes (i.e. the motivation to

process issue-relevant information) (Chu and Kamal, 2008), the usefulness of eWOM (Berger

and Milkman, 2012) and whether or eWOM is believable or not (Cheung *et al.*, 2009) influence

eWOM outcomes.

In this study, the findings again suggest that the nature of the industry portrayed could

explain these outcomes. Exposure to positive service encounters could have been a catalyst to a

positive disconfirmation of expectation. A positive disconfirmation of expectation occurs when

firm performance is better than expected (Cadotte *et al.*, 1987). Prior expectations are formed

based on attitudes and beliefs about the brand (Oliver, 1980; Cadotte *et al.*, 1987), personal

experience, the marketing mix (Bitner, 1990) and expected norms developed as a result of

experience with other brands (Cadotte *et al.*, 1987). As such, a positive disconfirmation of

expectation could have prompted participants in this study to be motivated to process more

information about the SEMWOM, reflect on its usefulness and assess credibility in their

evaluation of the airlines' reputations included in the study, versus the negative valence

SEMWOM in which emotions played more of a role. Hence, through a *positive disconfirmation*

of expectation the positive service encounters could have been in contrast to the expectations and

reputation of the airlines in the microblog environment and resulted in these constructs being

more predominant in the positive valence models. This finding therefore adds to the extant

literature on cognitive information processing, message usefulness and the role of credibility of

eWOM in the service encounter and microblog contexts.

Managerial implications

Be diligent and use social listening tools. First, managers must be diligent, as our

findings suggest that a change in firm reputation does indeed occur when receivers are exposed

to positive and negative valence SEMWOM. As such, managers should use social media

management tools to diligently monitor service encounters about their firms. Doing so could

provide opportunities to enhance their reputations when positive SEMWOM is shared and

protect it when negative SEMWOM is shared.

Amplify positive SEMWOM and engage with it. Second, our study indicates that

managers should try to amplify positive SEMWOM as firms' reputations can potentially be

enhanced through the joy that receivers feel after being exposed to positive SEMWOM. Further,

receivers of positive SEMWOM specifically are interested in processing issue-relevant

information upon exposure, meaning that brand managers have an opportunity to engage with

SEMWOM sharers and receivers to provide information that may be helpful in supporting the

validity of the service encounter.

Pay attention to peripheral cues with negative SEMWOM. Our study demonstrates that

receivers evaluate firms' reputations in some industries after exposure to negative SEMWOM

based primarily on peripheral cues such as emotions. It is thus important that managers work to

both minimize exposure to negative SEMWOM and to use defusing language in response to it.

Credibility is not always important. Finally, it is important for managers to understand

that the credibility of negative SEMWOM can play a minimal role in predicting receivers'

evaluation of a firm's reputation. In social media environments filled with misinformation and

disinformation, it is thus important that managers act quickly to ensure that their voice is inserted

as early as possible when negative SEMWOM is shared about their firms.

Limitations and future research

Limitations associated with this study may pave the way for future research. A key limitation is

our focus on the airline industry. We chose this industry because it was at the epicenter of service

encounter tweets and also offered a wealth of data. Although the use of this industry was a

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practical one for a sound execution of the study, research could undertake a similar study with

another industry or even a range of industries to determine whether similar outcomes would

occur. Another limitation is the location of the experiment (the United States). Given that

microblog users can share their experiences of firms with anyone around the world, research

should undertake a similar analysis with receivers in other countries. Finally, the study focused

on one social media platform, Twitter. It would be worthwhile for research to undertake a similar

study using other microblogging applications to determine whether our results hold.

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Appendix

[INSERT TABLES A.1 - A.3 HERE]

[INSERT FIGURES A.1-A.4 HERE]

Table I. Summary Statistics. Panel A of the table below shows summary statistics for NPS scores for both positive and negative SEMWOM delineated by type of tweet. Panel B shows pair-wise t-tests for each group.

A. **Summary Statistics**					
Positive		**Mean**	**SD**	**Correlation**	**p-value**
Video	Initial NPS	5.118	2.321	0.584	0.000
	Final NPS	5.941	1.909		
Photo	Initial NPS	4.581	1.980	0.353	0.000
	Final NPS	5.847	1.820		
Text	Initial NPS	5.930	2.357	0.384	0.000
	Final NPS	6.984	1.938		
Negative		**Mean**	**SD**	**Correlation**	**p-value**
Video	Initial NPS	4.806	2.088	0.389	0.000
	Final NPS	3.387	2.138		
Photo	Initial NPS	5.301	2.424	0.581	0.000
	Final NPS	3.731	2.182		
Text	Initial NPS	5.169	2.262	0.418	0.000
	Final NPS	3.688	0.098		
B. **Differences**					
Positive	**Pairs T-Test**	**p-value**	**Negative**	**Pairs T-Test**	**p-value**
Video	8.075	0.000	Video	-11.719	0.000
Photo	11.268	0.000	Photo	-14.292	0.000
Text	8.383	0.000	Text	-12.621	0.000

Table II. Positive PLS-SEM Results. Panel A of the table below shows PLS-SEM models for positive SEMWOM separated by type of tweet. Coefficients and t-statistics are found by bootstrapping 5,000 times. Panel B shows an OLS regression that contains only the initial NPS and an intercept.

Panel A: PLS-SEM Model Results													
		Video				Photo				Text Only			
		Coefficient	T-Stat.	P-Value	Significance/ Hypothesis	Coefficient	T-Stat.	P-Value	Significance/ Hypothesis	Coefficient	T-Stat.	P-Value	Significance/ Hypothesis
NPS1		0.317	6.775	0.000	Significant	0.285	6.297	0.000	Significant	0.406	9.731	0.000	Significant
SEMWOM Constructs:													
Message Usefulness	H3	0.168	2.306	0.021	**Supported**	0.281	4.277	0.000	**Supported**	0.054	1.073	0.283	Not supported
Message Cred.	H4	0.083	1.764	0.078	Not supported	0.187	3.468	0.001	**Supported**	0.232	3.403	0.000	**Supported**
Issue Inv.	H6	0.189	3.007	0.003	**Supported**	0.112	2.077	0.038	**Supported**	0.205	4.744	0.000	**Supported**
SEMWOM Emotions:													
Anger	H5	0.056	0.668	0.504	Not supported	0.122	1.415	0.157	Not supported	0.023	0.269	0.788	Not supported
Approval	H5	0.112	1.958	0.05	**Supported**	0.064	1.289	0.198	Not supported	-0.024	0.709	0.478	Not supported
Disgust	H5	-0.112	1.041	0.298	Not supported	-0.239	1.934	0.053	Not supported	-0.094	1.169	0.242	Not supported
Fear	H5	0.077	0.724	0.469	Not supported	-0.047	0.532	0.595	Not supported	0.078	0.785	0.433	Not supported
Joy	H5	0.171	2.524	0.012	**Supported**	0.141	2.364	0.018	**Supported**	0.197	3.842	0	**Supported**
Not Surprised	H5	-0.038	0.857	0.392	Not supported	0.012	0.475	0.634	Not supported	-0.04	1.271	0.204	Not supported
Sadness	H5	-0.133	1.486	0.137	Not supported	0.01	0.217	0.828	Not supported	-0.039	0.875	0.381	Not supported
Surprise	H5	-0.04	1.245	0.213	Not supported	0.011	0.394	0.694	Not supported	-0.066	1.753	0.08	Not supported
Demographics:													
Age		-0.052	1.536	0.125	Not significant	-0.136	3.003	0.003	Significant	-0.045	1.227	0.22	Not significant
Daily Use		-0.006	0.273	0.785	Not significant	0.023	0.941	0.347	Not significant	0.011	0.551	0.581	Not significant
Education		0.025	0.932	0.351	Not significant	0.086	2.176	0.03	Significant	0.026	0.939	0.348	Not significant
Sex		0.023	0.913	0.361	Not significant	0.043	1.447	0.148	Not significant	0.039	1.387	0.165	Not significant
R²=		**0.52**				**0.574**				**0.593**			
Panel B: OLS of the final NPS using only the original NPS													
		Video				Photo				Text			
		Coefficient	T-Stat.	P-Value		Coefficient	T-Stat.	P-Value		Coefficient	T-Stat.	P-Value	

NPS1	0.314	7.992	1.706	Not significant	0.323	7.252	2.428	Not significant	0.478	13.838	2.181	Not significant
Intercept	5.120	20.385	1.845	Not significant	4.366	19.627	2.729	Not significant	3.496	18.018	1.482	Not significant
$r^2=$	**0.147**				**0.124**				**0.341**			

Table III. Negative PLS SEM Models. Panel A of the table below shows PLS-SEM models for negative SEMWOM separated by type of tweet. Coefficients and t-statistics are found by bootstrapping 5,000 times. Panel B shows an OLS regression that contains only the initial NPS and an intercept.

Panel A: PLS-SEM Model Results													
		Video				**Photo**				**Text Only**			
		Coefficient	T-Stat.	P-Value	Significance/ Hypothesis	Coefficient	T-Stat.	P-Value	Significance/ Hypothesis	Coefficient	T-Stat.	P-Value	Significance/ Hypothesis
NPS1		0.377	7.604	0.000	Significant	0.52	11.892	0.000	Significant	0.471	8.692	0.000	Significant
SEMWOM Constructs:													
Message Usefulness	H3	-0.175	2.357	0.018	**Supported**	-0.065	1.318	0.188	Not supported	-0.127	1.859	0.063	Not supported
Message Cred.	H4	0.009	0.235	0.814	Not supported	-0.103	2.193	0.028	**Supported**	-0.121	1.92	0.055	Not supported
Issue Inv.	H6	-0.108	1.953	0.051	Not supported	-0.147	3.009	0.003	**Supported**	0.004	0.119	0.906	Not supported
SEMWOM Emotions:													
Anger	H5	-0.15	2.354	0.019	**Supported**	-0.055	1.187	0.235	Not supported	-0.11	1.591	0.112	Not supported
Approval	H5	0.103	2.039	0.042	**Supported**	0.152	2.856	0.004	**Supported**	0.091	1.43	0.153	Not supported
Disgust	H5	-0.192	3.027	0.002	**Supported**	-0.142	2.531	0.011	**Supported**	-0.113	1.787	0.074	Not supported
Fear	H5	0.1	1.954	0.051	Not supported	-0.107	1.857	0.063	Not supported	-0.07	1.069	0.285	Not supported
Joy	H5	0.095	1.9	0.058	Not supported	0.022	0.658	0.511	Not supported	0.187	2.639	0.008	**Supported**
Not Surprised	H5	-0.027	0.778	0.437	Not supported	0	0.011	0.991	Not supported	-0.116	2.218	0.027	**Supported**
Sadness	H5	-0.098	1.875	0.061	Not supported	0.045	1.165	0.244	Not supported	-0.069	1.326	0.185	Not supported
Surprise	H5	-0.04	1.013	0.311	Not supported	-0.019	0.545	0.586	Not supported	-0.042	0.938	0.348	Not supported
Demographics:													
Age		-0.01	0.365	0.715	Not significant	0.058	1.529	0.126	Not significant	0.041	1.046	0.295	Not significant
Daily Use		0.011	0.431	0.667	Not significant	-0.023	0.875	0.382	Not significant	-0.018	0.644	0.519	Not significant
Education		0.075	1.82	0.069	Not significant	0.019	0.644	0.519	Not significant	0.055	1.251	0.211	Not significant
Sex		-0.057	1.629	0.103	Not significant	-0.033	1.114	0.265	Not significant	0.02	0.695	0.487	Not significant
R²=		**0.447**				**0.485**				**0.366**			
Panel B: OLS of the final NPS using only the original NPS													
		Video				**Photo**				**Text Only**			
		Coefficient	T-Stat.	P-Value		Coefficient	T-Stat.	P-Value		Coefficient	T-Stat.	P-Value	

NPS1	0.399	8.128	2.105	Not significant	0.523	13.744	5.169	Not significant	0.351	8.859	3.432	Not significant
Intercept	1.472	5.728	6.608	Not significant	0.957	4.311	2.087	Not significant	1.876	8.399	9.716	Not significant
$r^2=$	**0.152**				**0.337**				**0.175**			

Table A.1 - Constructs and Scale Items. Table A.1 demonstrates the single and multi-item constructs, the routes to persuasion, the scale items used and the supporting references.

Construct Measured	Route to Persuasion	Scale Items	Major References
SEMWOM Message Credibility	Peripheral (Petty & Cacioppo, 1980)	Thinking about this Tweet, to what extent do you agree or disagree with the following statements? • The tweet is believable. • The tweet is informative. • The tweet is trustworthy. • The tweet is reliable.	Park, Wang, Yao, & Kang, 2011; Cheung et al., 2009
SEMWOM Message Usefulness	Peripheral (Richens, 1984; Petty & Cacioppo, 1980)	Thinking about this tweet, to what extent do you agree or disagree with the following statements? • The tweet is useful. • The tweet is interesting. • The tweet is worth remembering. • I liked the tweet.	Laczniak & Muehling, 1993
SEMWOM Issue Involvement	Central (Richens, 1984; Petty & Cacioppo, 1980)	After seeing this tweet, how likely are you to do the following? • Expand it to read (airline) response	Petty, & Cacioppo, 1980

		• Expand to read comments of others • Click to favorite it • Click to retweet it	
SEMWOM Emotions	Peripheral (Petty & Cacioppo, 1980)	Reflecting on this tweet, to what extent do you feel the following emotions? • Joy • Sadness • Surprise • Not surprised • Anger • Fear • Disgust • Approval	Plutchik, 2001

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Table A.2 – Positive Model Validity Results. Convergent validity was established as the average variance explained (AVE) by the multiple indicators of each latent variable was > than 0.5. Internal consistency reliability was established, as all of the composite reliability coefficients for the latent variables were > 0.6 (single-item constructs measure at 1).

Positive														
Photo					**Text**					**Video**				
	Cronbach's Alpha	rho_A	Composite Reliability	A.V.E.		Cronbach's Alpha	rho_A	Composite Reliability	A.V.E.		Cronbach's Alpha	rho_A	Composite Reliability	A.V.E.
Initial NPS	1	1	1	1	Initial NPS	1	1	1	1	Initial NPS	1	1	1	1
Final NPS	1	1	1	1	Final NPS	1	1	1	1	Final NPS	1	1	1	1
SEMWOM Constructs:														
Issue Involvement	0.854	0.855	0.901	0.695	Issue Involvement	0.795	0.803	0.866	0.619	Issue Involvement	0.893	0.894	0.926	0.757
Message Credibility	0.86	0.869	0.906	0.708	Message Credibility	0.827	0.838	0.885	0.658	Message Credibility	0.867	0.866	0.911	0.721
Message Usefulness	0.915	0.917	0.94	0.798	Message Usefulness	0.852	0.863	0.9	0.692	Message Usefulness	0.895	0.896	0.927	0.762
Emotions:														
Anger	1	1	1	1	Anger	1	1	1	1	Anger	1	1	1	1
Approval	1	1	1	1	Approval	1	1	1	1	Approval	1	1	1	1
Disgust	1	1	1	1	Disgust	1	1	1	1	Disgust	1	1	1	1
Fear	1	1	1	1	Fear	1	1	1	1	Fear	1	1	1	1
Joy	1	1	1	1	Joy	1	1	1	1	Joy	1	1	1	1
Not Surprised	1	1	1	1	Not Surprised	1	1	1	1	Not Surprised	1	1	1	1
Sadness	1	1	1	1	Sadness	1	1	1	1	Sadness	1	1	1	1
Surprise	1	1	1	1	Surprise	1	1	1	1	Surprise	1	1	1	1
Demographics:														
Age	1	1	1	1	Age	1	1	1	1	Age	1	1	1	1
Daily Use	1	1	1	1	Daily Use	1	1	1	1	Daily Use	1	1	1	1
Education	1	1	1	1	Education	1	1	1	1	Education	1	1	1	1
Sex	1	1	1	1	Sex	1	1	1	1	Sex	1	1	1	1

Table A.3 – **Negative Model Validity Results**. Convergent validity was established as the average variance explained (AVE) by the multiple indicators of each latent variable was > than 0.5. Internal consistency reliability was established, as all of the composite reliability coefficients for the latent variables were > 0.6 (single-item constructs measure at 1).

Negative														
Photo					**Text**					**Video**				
	Cronbach's Alpha	rho_A	Composite Reliability	AVE		Cronbach's Alpha	rho_A	Composite Reliability	AVE		Cronbach's Alpha	rho_A	Composite Reliability	AVE
Initial NPS	1	1	1	1	Initial NPS	1	1	1	1	Initial NPS	1	1	1	1
Final NPS	1	1	1	1	Final NPS	1	1	1	1	Final NPS	1	1	1	1
SEMWOM Constructs:														
Issue Involvement	0.698	0.743	0.81	0.523	Issue Involvement	0.796	0.825	0.865	0.619	Issue Involvement	0.78	0.839	0.854	0.597
Message Credibility	0.796	0.816	0.867	0.622	Message Credibility	0.881	0.906	0.919	0.741	Message Credibility	0.895	0.905	0.927	0.762
Message Usefulness	0.792	0.816	0.864	0.614	Message Usefulness	0.881	0.904	0.917	0.734	Message Usefulness	0.872	0.877	0.912	0.722
Emotions:														
Anger	1	1	1	1	Anger	1	1	1	1	Anger	1	1	1	1
Approval	1	1	1	1	Approval	1	1	1	1	Approval	1	1	1	1
Disgust	1	1	1	1	Disgust	1	1	1	1	Disgust	1	1	1	1
Fear	1	1	1	1	Fear	1	1	1	1	Fear	1	1	1	1
Joy	1	1	1	1	Joy	1	1	1	1	Joy	1	1	1	1
Not Surprised	1	1	1	1	Not Surprised	1	1	1	1	Not Surprised	1	1	1	1
Sadness	1	1	1	1	Sadness	1	1	1	1	Sadness	1	1	1	1
Surprise	1	1	1	1	Surprise	1	1	1	1	Surprise	1	1	1	1
Age	1	1	1	1	Age	1	1	1	1	Age	1	1	1	1
Daily Use	1	1	1	1	Daily Use	1	1	1	1	Daily Use	1	1	1	1
Education	1	1	1	1	Education	1	1	1	1	Education	1	1	1	1
Sex	1	1	1	1	Sex	1	1	1	1	Sex	1	1	1	1

Figure 1 - SEMWOM Reputation Model

Figure A.1 - Positive SEMOM (photo)

@united ^KP You've restored my faith is customer service and the airlines. I really really really appreciate it. I'm crying. made my day. :)

Figure A.2 - Positive SEMWOM (text only)

@AmericanAir poor customer service exper., unfortunately. Agents weren't apologetic at all. :(I thought the airline had made some changes.

Figure A.3 – Negative SEMWOM (text only)

Waiting over an hour and a half for my friend's luggage on @**Delta** for a flight delayed over 5 hours >:(@DeltaAssist

Figure A.4 – Negative SEMWOM (photo)