Effects of Managerial Response to E-WOM on Consumer Attitude

Research-in-Progress

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Abstract

There is limited systematic research on managerial response strategies to online consumer complaints and negative e-WOM. In this paper, we synthesize equity theory, service recovery theory and observational learning theory to develop our theoretical model that explores the mechanism through which online consumer complaints influence consumer attitudes and the mechanisms through which managerial responses can alter these influences. We test our model using data from TripAdvisor.com—a leading travel review platform. Using advanced text analytics we extract and code the variables in our model from the reviews and the managerial responses to these reviews in TripAdvisor.com.

Keywords: Managerial response, electronic word-of-mouth, consumer attitude

Introduction

A growing number of popular review forums such as TripAdvisor, not only provide consumer reviews but also permit managerial responses to such reviews. Consumers’ opinions and managerial responses are visible to all and hence subject to interpretation and reaction. Such online forums and users in these forums have grown in popularity since they often serve as an important first stop in the process of consumers seeking information about products and services. These forums facilitate rapid information exchange and, studies have found that negative electronic word-of-mouth (e-WOM) spreads more rapidly and could cause a more immediate damage to a company’s reputation than traditional (offline) word of mouth (WOM) (Mattila and Mount, 2003). Since negative online reviews are permanently archived and available to a larger audience (Dellarocas, 2003), managers need to understand not only the effect of their response to the dissatisfied customers but also its effect on future customers who read the management response (Harrison-Walker, 2001). Thus, it is necessary for managers to design effective response strategies to mitigate the harmful effects of negative WOM in this online review forum environment.

There is limited systematic research on managerial response strategies to online consumer complaints and negative e-WOM. While recent studies have started to explore if managerial responses do have an effect on overall customer attitudes (Ravichandran, Huang, and Sharp, 2012; Sharp, Huang, and Ravichandran, 2014) and the volume of consumer participation in specific forums (Chen, Gu, Ye,
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Zhu, 2015), these studies are just the first step towards developing a deeper understanding of effective managerial response strategies. There is a clear need for developing theoretically anchored frameworks in order to dig deeper into both the nature of consumer complaints and that of the responses to derive effective strategies to deal with negative e-WOM. While research in service recovery has explored this issue to some extent, this stream has used surveys and experiments to derive normative guidelines for dealing with consumer complaints. While useful, these studies lack a sense of theory and do not lend for generalization and application beyond the specific context of those studies. Moreover, online reviews differ from traditional consumer complaints in that both the reviews and the managerial responses are public and visible, whereas the normative guidelines derived in past studies are targeted at private consumer-firm interactions. Thus, there is a significant gap in our understanding of the mechanisms through which online consumer complaints influences consumer attitudes and the mechanisms through which managerial responses can alter these influences.

In order to theorize and test which kinds of managerial response strategies are most effective, we measure if and how customers’ attitudes as reflected in the overall valance of their reviews, will be influenced by observing such managerial responses to consumer complaints in online review forums. While customer reviews are primarily influenced by their experiences with the product or service and the degree of expectation disconfirmation (Osarenkhoe and Komunda, 2013), it is also known that such reviews are susceptible to the opinions and views of others. We argue that a customer’s attitude is affected by observational learning. Observational learning occurs when peoples’ choices and actions are influenced by observing the actions of others (Cheung, Xiao, and Liu, 2012). Since managerial responses to customer complaints signals managerial interest in listening to customers and improving the service (Chen et al, 2015), it is likely that customers observing such interactions could be influenced by managerial responsiveness or lack thereof and hence modulate their views. While intriguing, this premise has not been systematically explored and empirically established.

The objective of our study is to address the following two questions: 1) how future customers’ attitudes will be influenced by observing different managerial responses to consumer complaints; 2) how this influence will be moderated by observing the overall customer attitudes in online review forums. We synthesize equity theory, service recovery theory and observational learning theory to develop our theoretical model that explores the pathways through which customer complaints and managerial responses to such complaints impact customer attitudes. Using equity theory and service recovery theory, we characterize customer complaints and managerial responses on their underlying dimensions. Using observational learning theory, we examine the effects of the fit between the nature of complaints and the nature of responses on customer attitudes. Further, drawing from observational learning theory, we argue that these effects will be moderated by the overall customer sentiments in an online forum. We test our propositions using data from Tripadvisor.com, a popular travel forum. We use extensive text analytics to extract and code the reviews and the managerial responses from this online forum to compile our data. Methods of text mining would allow for in-depth empirical assessment of the content embedded in consumer reviews and managerial responses to not only target but also to track identified areas of concern over time.

We believe that this paper makes two main contributions. Firstly, this paper adds to a growing literature on social media. A few recent papers have examined the social media strategies of firms, which involve investigating the effect of negative posts on the readership of an employee’s blog (Aggarwal, Gopal, Sankaranarayanan, and Singh, 2012) and examining the characteristics of the blog posts which determine the blog reading behavior (Singh, Sahoo, and Mukhopadhyay, 2010). In this paper, we develop a fine-grained characterization of managerial responses and consumer reviews by text mining the actual content in managerial responses and consumer reviews. We examine how different types of managerial responses vary in their impacts on subsequent WOM behavior. In addition, this paper adds to the literature on service recovery. Compared to offline service recovery, managers need to understand not only the effect of the management response on the current dissatisfied customers but also its influence on future customers who read the management response (Harrison-Walker, 2001). We shed light on this.

The rest of the article is organized as follows. The theoretical background is presented in section 2. In section 3, we synthesize the theories and develop our research hypotheses. We discuss data and empirical methodology in section 4. In section 5, we conclude by presenting the managerial implications and ongoing work.
Theoretical Background

We synthesize three theories to develop our theoretical model: equity theory, service recovery theory and observational learning theory. Equity theory is used to explain consumer complaining behavior. Service recovery theory is used to analyze managerial response behavior. Observational learning theory is used to describe future customers’ behavior when observing consumer complaints and corresponding managerial responses.

Equity Theory and Service Recovery

Consumer complaining behavior can be explained by several theories such as the confirmation/disconfirmation paradigm (Oliver, 1980), attribution theory (Folkes, 1984) and equity theory (Adams, 1965). Confirmation/disconfirmation is an evaluative process where a customer compares a product/service’s real performance with his/her prior expectation of that product/service (Blodgett, Granbois, and Walters, 1994). Bearden and Teel (1983) established the confirmation/disconfirmation paradigm as the conceptual groundwork for the study of complaining behavior. Attribution theory states that the perceived reason for a product’s failure influences how a consumer responds (Folkes, 1984). Equity theory states that individuals involved in conflicts or disputes base their perceptions of justice on several factors (Blodgett et al., 1994): the perceived fairness of the tangible outcome (i.e. distributive justice; Homans, 1961), the perceived fairness of the procedures used in arriving at the outcome (i.e. procedural justice; Thibaut and Walker, 1975), and the perceived fairness of the manner in which they were treated during the conflict resolution process (i.e. interactional justice; Bies and Moag, 1986). Equity theory allows us to explain consumer complaining behavior in terms of perceived justice which is considered to be a vital factor that determines whether a complainant will engage in negative word-of-mouth behavior (Blodgett et al., 1994). Hence out choice of this theoretical lens. Cho, Im and Hiltz (2003) propose that when customers perceive a higher degree of service failure with these three justice dimensions, they are more likely to complain. Taking into account these antecedents of complaining behavior, we categorize complaints (i.e. negative reviews) into three types in this paper: complaints about distributive unfairness, complaints about procedural unfairness and complaints about interactional unfairness.

Although service recovery is recognized by researchers and managers as a critical element of customer service strategy to solve complaints (Smith, Bolton, and Wagner, 1999), there is still a need to examine customer complaints from a theoretical perspective. Existing marketing research on service recovery has examined ways in which management can respond to customer complaints. Service recovery is defined as the actions a service provider takes to address customers’ complaints (Gro¨nroos, 1988), or as the actions designed to solve customers’ problems, alter negative attitudes of dissatisfied customers, and finally retain these customers (Miller, Graighhead, and Karwan, 2000). Davidow (2000) identifies six different dimensions of organizational responses to complaints (i.e. timelines, facilitation, redress, apology, credibility and attentiveness) that influence post-complaint customer behavior. Karatepe (2006) provides similar organizational responses to complaints: atonement, facilitation, promptness, apology, explanation, attentiveness, and effort. Following the extant literature, we classify the managerial response into two types: rational response and emotional response. Rational response attempts to recover the service failure through specific actions such as explanation (Karatepe, 2006), redress (Karatepe, 2006), facilitation (Karatepe and Ekiz, 2004) and reinforcement (Strauss and Hill, 2001). Emotional response attempts to recover the service failure through emotional arousal such as apology (Smith et al., 1999), appreciation (Strauss and Hill, 2001), attentiveness (Davidow, 2000; Parasuraman, Zeithaml, and Berry, 1988) and encouragement (Strauss and Hill, 2001).

The way in which complaints are solved will lead to consumer satisfaction or dissatisfaction (Osarenkhoe and Komunda, 2013). It is well known that customer dissatisfaction influences post-purchase behaviors such as negative WOM (Mooradian and Oliver, 1997) which hurts marketers due to its ability to ruin the opinions of numerous potential customers (Richins, 1983). Singh (1988) shows that up to two thirds of dissatisfied consumers do not complain to the marketer, but change service/product providers and/or engage in negative WOM behavior. These issues, in turn, have focused attention on the significance of complaint resolution (Bell and Luddington, 2006). If complaints are not handled properly, dissatisfied customers will not only withdraw their patronage, but also are likely to spread negative information.
(Svari, Svensson, Slåtten, and Edvardsson, 2010). If complaints are handled effectively, dissatisfied customers will change their attitudes towards the firm and firms can achieve high levels of customer satisfaction and loyalty (Smith et al., 1999).

Equity theory and service recovery theory help in understanding why effective response strategies as a way of complaint resolution can change the attitudes of dissatisfied customers. However, we need to use observational learning theory to understand how an unsatisfactory or satisfactory managerial response impacts the attitudes of future customers who read the complaints and corresponding responses in the online review forum. Here, the future customers refer to customers who have had satisfactory/dissatisfactory experience with a service or product and plan to write a review in the online review forum. We argue that their opinions/reviews will be influenced by the information exchange between managers and consumers.

**Observational Learning**

Bandura (1977) distinguishes between two types of observational learning: imitation, which is matching the features of an observed person’s behavior; and vicarious learning, which is the increase or decrease of an observer’s attitude that is similar to that of the observed person (Van Vaerenbergh, Vermeir, and Lariviè re, 2013). A vast body of work focuses on the first type of observational learning, imitation. A number of experimental studies in the economics literature have provided empirical support that individuals tend to change their behaviors based on the information about others’ behaviors (Croson and Shang, 2008; Duan, Gu and Whinston, 2008). People are likely to imitate others’ behaviors when they are able to observe the behaviors of preceding others (Cai, Chen, and Fang, 2009). This phenomenon is particularly obvious when there is imperfect information (Duan, Gu, and Whinston, 2009). Bikhchandani, Hirshleifer and Welch (1998) use the concept of observational learning valence to assess the information that customers can observe. The valence of observational learning is determined by the percentages of choices among all previous actions (Chen, Wang, and Xie, 2011). For example, the observational learning valence is positive (negative) if the percentage of cumulative purchases among the adoptions made by all previous informed consumers is larger (smaller) (Chen et al., 2011).

Bandura (1977) calls the second type of observational learning as vicarious learning. Other persons' experiences provide the observer with additional information about which behaviors lead to satisfactory or unsatisfactory outcomes, in addition to his or her actual experience (Bandura, 1977; Kanekar, 1976). Conceptually, an observer obtains responses to a stimulus by observing the experiences of others, as if she/he had the experience with the stimulus object by her-/himself (Kanekar, 1976). Observational learning effects can be quite strong since it may even lead people to disregard their own prior attitudes and behavioral intentions (Bikhchandani et al., 1998).

The focus of this paper is to examine if and how an unsatisfactory or satisfactory managerial response impacts the future review valence in the online review forum. We argue that managerial responses to negative reviews will have an impact on the valence of the post-response reviews. This effect which can be explained by vicarious learning will vary based on the fit of the response to the nature of the complaint. Moreover, this effect will be modulated by the imitation effect from observational learning that occurs when future customers observe the overall customer sentiments in the online forums. We use Bikhchandani et al. (1998)’s statement about observational learning (OL) valence for reference. We argue that the OL signal is positive if the percentage of positive reviews is larger than that of negative reviews among all previous reviews. The OL signal is negative if the percentage of negative reviews is larger than that of positive reviews among all previous reviews. We examine how OL valence moderates the effect of managerial responses to negative reviews on the future review valence. We argue that the future customers’ attitudes will be affected by both vicarious learning and imitation from observing managerial responses to negative reviews.

**Hypothesis Development**

By observing the interaction between managers and customers in the online review forum, future customers' attitudes will be changed by observational learning. Future customers can access the online forum as a source of information to enhance their knowledge of a particular environment (Park and Lessig, 1977) by observing managerial responses to previous negative reviews. This is called vicarious
learning. For example, when encountering the same service failure described by previous complainants and observing effective managerial responses to these complaints, future customers feel as if they experience the same complaint solution as previous complaints. Thus, instead of posting negative reviews online, they will be more likely to contact the managers in person to request the appropriate solution to their own issues. Even for customers who are satisfied with the service, observing effective managerial responses could increase their likelihood of contributing to the online review forum (Chen et al., 2015).

Smith et al. (1999) state that complainants’ perceptions of distributive justice involve the distribution of compensation in terms of refunds, free gifts, coupons, and discounts by the service provider towards the injustice caused by a service failure. Tax, Brown and Chandranshekaran (1998) find that redress was the most important dimension related to complainants’ perceptions of distributive justice. Thus, we expect that the rational response such as redress will be the most effective response strategy to solve complaints about distributive unfairness since it might assist customers to restore equilibrium. Rational response such as explanation, facilitation and reinforcement will also be beneficial to solve distributive unfairness since it indicates that managers are willing to take specific actions to resolve the complaint in order to restore the complainants’ perceived fairness (Homans, 1961).

Future customers learn from prior interaction between the management and customers and perceive a high likelihood of redress from management when they encounter the similar service failure and complain about distributive unfairness (Chen et al., 2015). Therefore, they will be more likely to contact managers in person rather than posting negative comments online, thus increasing the future review valence in the online review forum. Thus, we hypothesize that,

H1: Rational response to negative reviews about distributive unfairness will have a positive effect on the future review valence.

Karatepe (2006) considers that facilitation can help complainants to restore procedural justice since it is associated with the policies and procedures that a company has in place to facilitate complaint handling (Davidow, 2000). Thus, we expect that the rational response such as facilitation will be the most effective response strategy to solve complaints about procedural unfairness since it might assist customers to restore equilibrium. Rational responses such as redress, explanation and reinforcement are all appropriate to address procedural unfairness since they indicate that managers are willing to try their best to resolve and facilitate the complaint handling in order to restore the complainants’ perceived fairness of the procedures used in arriving at the outcome (Thibaut and Walker, 1975).

Future customers learn from prior interaction between the management and customers and perceive a high success rate of attaining rational response such as getting facilitation policies or procedures from management when they encounter the same service failure and complain about procedural unfairness. Instead of posting negative reviews online, they will be more likely to contact managers privately to seek resolutions for their own problems, thus increasing the future review valence in the online review forum. Thus, we hypothesize that,

H2: Rational response to negative reviews about procedural unfairness will have a positive effect on the future review valence.

Davidow (2000) finds that an apology can be considered a psychological compensation for interactional unfairness since it might assist customers to restore equilibrium. Tax et al. (1998) consider attentiveness important since customers expect frontline employees to put a great deal of effort into resolving their problems in order to receive fair interpersonal treatment.

Thus, we expect that the emotional response such as apology and attentiveness will be the most effective response strategy to solve complaints about interactional unfairness. The appreciation and encouragement embedded in emotional responses show that the company is willing to listen to customers’ complaints since it appreciates their purchases and encourages them to write more comments in the future (Strauss and Hill, 2001).

Prior interaction between the management and customers provides a strong indication that the company is enthusiastic to provide better service (Chen et al., 2015). Future customers learn from this interaction and will possibly change their perception about the firm even if they encounter the same service failure and complain about interactional unfairness. As a result, they will slightly increase review ratings towards that company on the online review forum. Thus, we hypothesize that,
H3: Emotional response to negative reviews about interactional unfairness will have a positive effect on the future review valence.

Future customers’ attitudes will not only be affected by vicarious learning but also be influenced by imitation. We examine how observational learning valence moderates the effect of managerial responses on the future review valence. When future customers observe more positive reviews than negative reviews among all previous reviews, they will be more likely to reserve their bad feelings and give up writing negative reviews online even if they had a bad experience with a service. For customers who had a pleasant experience with a service, observing more positive reviews will strengthen the good feelings about effective managerial responses to complaints. On the other hand, when negative reviews exceed positive reviews, future customers will be less likely to reserve their bad feelings even if they observe effective managerial responses to complaints. For customers who had a pleasant experience with a service, observing copious negative reviews will weaken the good feelings about appropriate managerial responses to complaints. Thus, we hypothesize that,

H4: The positive effect for a) rational response to negative reviews about distributive and procedural unfairness; b) emotional response to negative reviews about interactional unfairness on the future review valence will be stronger when observational learning is positive.

H5: The positive effect for a) rational response to negative reviews about distributive and procedural unfairness; b) emotional response to negative reviews about interactional unfairness on the future review valence will be weaker when observational learning is negative.

Data and Methodology

Data

We collected a sample of 67,418 daily chronologically archived hotel reviews from TripAdvisor.com—a leading travel review platform. The sample consists of 156 hotels located in the US cities of Boston (n=78) and Honolulu (n=83). The data are comprehensive for each location—presenting every consumer review and corresponding managerial response (if available) published on TripAdvisor.com up to the time of data collection—covering reviews between March 2001 and November 2011. The two cities differ in the nature of their tourist attraction, and geographic location, thereby adding diversity to the sample.

Our data includes characteristics specific to hotel reviews (hotel name, review title, review date, review content, industry star rating, total user ratings, average user rating), individual reviewers (reviewer id, address, overall rating for a specific hotel visit, stay period, and experience ratings for value, location, sleep quality, room quality, cleanliness, and service), and managerial responses (response date, responding manager’s id, response content). The richness of the dataset allows for the systematic exploration of actual occurrences of manager-consumer interaction in online review forums.

Methodology

We use two steps to label content embedded in customer reviews and managerial responses. In this paper, we only examine negative reviews and corresponding managerial responses. First, we use Amazon Mechanical Turk (AMT) to tag half of the message as the training dataset (Lee, Hosanagar, and Nair, 2014). AMT is a crowd sourcing marketplace used to automate the implementation of micro tasks that require human involvement (Ghose, Ipeirotis, and Li, 2012). To accomplish this, we will design a survey in which AMT workers are asked to answer a series of questions concerning a fine-grained characterization of managerial responses and negative reviews. There will be two sections in this AMT survey. One is to identify the content of managerial responses by asking several questions about the characteristics of the response message. The other is to classify the content of consumer complaints by asking several questions about the characteristics of the complaint message. After obtaining the training dataset, we will build an NLP algorithm to extend the content-coding to the full set of messages (Lee et al., 2014).

The content in managerial responses can be categorized as Rational and Emotional. Responses coded as Explanation, Redress, Facilitation, Reinforcement are classified as rational and those coded as Apology, Appreciation, Attentiveness, Encouragement are classified as emotional. The content in negative reviews (i.e. customer complaints) can be categorized as complaints about Distributive unfairness, Procedural
unfairness and Interactional unfairness. Complaints coded as Equality, Equity and Need are considered to be distributive, those coded as Speed, Flexibility, Accessibility are considered to be procedural and those coded as Politeness, Effort, Empathy are considered to be interactional. Table 1 outlines the coding schema and the precise definitions of the various dimensions used in our schema.

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Key Variables

We will create two composite summary variables corresponding to rational and emotional response. Rational Response is obtained by adding values of Explanation, Redress, Facilitation, Reinforcement resulting in a composite variable ranging from 0 and 4. Emotional Response is obtained by adding values of Apology, Appreciation, Attentiveness, Encouragement resulting in a composite variable ranging from 0 and 4.

In addition, we will create three composite summary variables corresponding to distributive, procedural, and interactional unfairness. The Distributive variable is obtained by adding values of Equality, Equity and Need resulting in a composite variable ranging from 0 to 3. The Procedural variable is obtained by adding values of Speed, Flexibility, and Accessibility resulting in a composite variable ranging from 0 to 3. The Interactional variable is obtained by adding values of Politeness, Effort, and Empathy resulting in a composite variable ranging from 0 to 3.

FutureReviewValence, will be designed to capture aggregate consumer attitudes toward each hotel over the 30-day period following a managerial response to a negative review. This dependent variable is a forward-looking measure of the overall average review valence.

ObservationalLearningValence will be measured by the percentage of positive reviews among all previous reviews before each negative review. Percentage larger than 0.5 is considered to be positive OL while percentage smaller than 0.5 is considered to be negative OL. This is the moderator variable.

The first control variable is the actual experience by a customer. We plan to use factor analysis to construct this experience variable by aggregating the experience ratings—namely those related to the value, location, sleep quality, room condition, cleanliness, and service quality of each hotel review observation. The other control variables are considered to be hotel specific factors that may influence future review valence. We will include hotel size, location city, and seasonality. Firstly, we will proxy for hotel size using the total number of rooms for each hotel (Chung and Kalnins, 2001). Secondly, given the potential for more business travelers in Boston and leisure travel consumers in Honolulu we will control for the possible effects associated with the city in which each hotel is located. Thirdly, we will consider the seasonality, associated with each of the sample cities. Guided by travel industry sources (e.g. Frommers travel guides and TripAdvisor.com), we will identify the months, seasons, and holidays associated with increased travel to the sample cities as such trends could potentially impact hotel review volume and consumer attitudes.

Managerial Implication and Future Work

While theoretically anchored frameworks to classify consumer complaints and managerial responses are sparse, this paper would add to the richness of our understanding of how overt managerial presence in online review forums influences consumer attitudes and behavior. This paper emphasizes the importance of devising appropriate managerial response strategies to restore the satisfaction and behavioral intention not only for the complaining customer but also for the customers who are observing. In addition, this paper provides guidance for managers to interact with their consumers openly and skillfully in the review community in response to expressed dissatisfaction in order to restore their company’s reputation and brand image.

Our ongoing work focused on coding the data we have collected and empirical testing of the hypotheses is underway. We do expect to complete this and present the results at the conference in December.

References


