

Talk Up or Criticize? Customer Responses to WOM about Competitors during Social Interactions

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Abstract

Popular metrics such as the Net Promoter Score highlight the many benefits of word of mouth (WOM) to firms. Is WOM all it is claimed to be? Building on social identity theory, this research develops a conceptual model of WOM exchange in friendly, social settings and tests the model with a survey of customers of three distinct service sectors. The findings show that the effects of (1) positive and negative WOM (P/NWOM) *received* about competitors and (2) perceived presence of critical incidents (PPCIs) on P/NWOM *given* about own service provider are far from intuitive. Responses to PWOM received counter the suggestions in the Net Promoter Score literature. In addition, the effects of NWOM received and the PPCIs indicate that the best firms can hope for when receiving NWOM about competitors is that their customers remain silent. Based on the findings, it is recommended that firms communicate a message that is consistent with the nuanced views expressed by friends in social circles, rather than a uniformly superior positioning.

Keywords: Word of mouth received, Word of mouth given, Critical incidents, Social identity

1. Introduction

Imagine that you are among your social circle of close friends and a friend is talking about some positive features of a service provider (SP) that competes with your own SP. How does this information influence your views toward your own SP? Specifically, how does it affect what you are going to say about your own SP? Are you more inclined to *talk up* your own SP or do the opposite? Would experiencing the presence of any critical incidents resulting from the actions of front line employees during service encounters matter?

Customer-to-customer (C2C) social interactions (Berthon et al., 2011) and customer-SP interactions (Tronvoll, 2011) have important effects on how customers form opinions about SPs, partly because these interactions are associated with two important phenomena frequently discussed in the literature: (1) word of mouth (WOM) behavior, in which customers exchange WOM about their SPs in their social circle, and (2) the perceived presence of critical incidents (PPCIs), which exerts a major impact on customer attitudes toward SPs (Lovelock et al., 2008).

Business interest in WOM behavior has increased exponentially in the past decade mainly due to the Net Promoter Score (NPS) (Reichheld, 2003), which captures the likelihood of customers recommending a firm they patronize. Customer satisfaction is a strong driver of WOM (Szymanski & Henard, 2001), and, in turn, WOM can influence purchase decisions (Whyte, 1954), expectations (Zeithaml & Bitner, 1996), pre-usage attitudes (Martin & Lueg, 2013), and post-usage perceptions (Burzynski & Bayer, 1977). Service customers are particularly reliant on WOM because services are characterized by low search and high experience and credence qualities (Gremler, 1994). Keaveney (1995) finds that 50% of SP replacements are due to WOM. This figure is highly relevant for the current study; that is, WOM received (WOM-R) about competing SPs induces recipients to modify their

preferences and potentially change their behavior toward own SP, including a change in their loyalty to the SP, and the possibility of switching.

However, recent research also suggests that the effects of WOM are not clear cut. Morgan and Rego (2006) find that while customer satisfaction can predict loyalty, matrices based on WOM behavior, such as the NPS, have little or no predictive value. Other studies raise fundamental concerns about the validity of the NPS (Keiningham et al., 2007). Such concern raises questions about the impact of WOM on the recipient. If WOM does not have good predictive ability, does this mean that WOM-R does not influence recipients' behavior, or does the influence take a form distinct from what the popular press suggests? Given the recent intellectual and business interest on this topic (Libai et al., 2010), investigating the effect of WOM-R on WOM given (WOM-G) is a fundamental aim of this study.

Research on positive and negative WOM (P/NWOM) behavior establishes that customer satisfaction is one of the most consistently significant predictors of WOM-G (Szymanski & Henard, 2001). Therefore, inquiries into whether satisfaction acts not just on its own but also in combination with WOM-R about competitors and also whether such combined effects influence both negative and positive behaviors are pertinent.

Another key factor influencing WOM behavior is PPCIs during service interactions, defined as “encounters between customers and SPs that have strong effects on customer satisfaction” (Lovelock et al., 2008, p. 612). PPCIs include employee responses to service failure and special customer requests, as well as unsolicited and unprompted employee behaviors during, for example, unpredictable or surprising encounters (Bitner et al., 1990). Business press is replete with suggestions of how firms can do something *remarkable* for customers to generate WOM (Godin, 2009). Critical incidents are often remarkable events because they are, by definition, critical in the eyes of customers. Thus, an examination of WOM behavior is incomplete without simultaneous investigation of the effect of critical

incidents. Regardless, understanding of the effects of critical incidents on certain dimensions of loyalty behavior, specifically PWOM and NWOM behavior, is limited. Except for some exploratory studies that broadly examine WOM in the context of certain critical interactions (Grace, 2007) and others that specifically focus on the effects of service recovery on WOM behavior (Swanson & Kelley, 2001), research is surprisingly sparse. How PPCIs individually and in combination with customer satisfaction affect recipients' WOM-G is unknown and thus is another key question the current research addresses.

Overall, the objective of this article is to examine the effects of P/NWOM-R during social interactions regarding competing SPs and PPCIs on P/NWOM-G about own SP. This research also examines whether P/NWOM-R about competing SPs interacts with customer satisfaction in generating P/NWOM behavior toward own SP.

2. Literature review and conceptual model

The linear, direct effects of satisfaction on WOM behavior are well established in the literature. Research indicates that satisfaction increases PWOM-G (Bolton & Lemon, 1999) and decreases NWOM-G (Anderson, 1998; Oliver, 1997). Matos et al. (2013) find a significant, positive effect of satisfaction on PWOM ($\beta = .25$), and Voorhees et al. (2006) find a significant, negative effect on NWOM ($\beta = -.40$). Ranaweera and Menon (2013) examine both types of WOM and find a positive linear effect on PWOM ($\beta = .67$) and a significant, negative linear effect on NWOM ($\beta = -.59$). While the effect sizes vary depending on context, the direction and significance levels remain consistent. Thus, although satisfaction is an established driver of WOM, WOM-G is far more complex than being driven by mere satisfaction with an SP.

2.1. Direct effects of WOM-R about competitors on WOM behavior

To understand the response to WOM-R, this study examines the context in which credible WOM often occurs. That is, credible WOM often takes place in social contexts among friends and family who

are likely to have a strong social affinity with one another. Recent research also suggests that in such contexts, social interactions become a driver of WOM (Abrantes et al., 2013). In addition, loyalty to firms can serve as a good basis for classifying individuals into social categories (Stokburger-Sauer et al., 2010). As such, the social identity theory (SIT), with applications in a wide range of fields and settings, including communication (Smidts et al., 2001), can be helpful in explaining these relationships.

SIT is a broad theory that addresses the self-concept, inter-group relations, and group processes (Tajfel & Turner, 1979). Proponents of SIT argue that people tend to simplify the social world by categorizing themselves as members of various social groups. Group membership is represented in the individual's mind as a social identity (Hogg et al., 1995). Accordingly, the self is defined in collective rather than personal terms (Van Knippenberg & Sleebos, 2006). Another element of SIT most relevant in the context of WOM is the tenet that individuals strive to achieve a positive self-concept and to see themselves in a positive light by trying to enhance their social identity within the social group (Tajfel & Turner, 1979). Consequently, among close friends and family, with whom sharing of WOM is most common, recipients of information are likely to react to that information in such a way that their identity in the group is reinforced in the eyes of others. Therefore, when given positive information by someone close to them about *their* SP, the recipients are likely to be influenced by PWOM-R, such that they too will have a motivation to generate PWOM about their own SP. This assumption suggests a behavior that is counter to what is implicit in prior research-specifically, that PWOM-R about a competitor weakens recipients' loyalty to their own SP, leading to an opposite effect.

SIT also holds that though individual preferences are unlikely to change fundamentally, they are likely to be modified to fit the needs of the social group (Tajfel & Turner, 1979). In the context of service interactions, such a compromise is likely to be easy, given the *variability* associated with service delivery (Lovelock et al., 2008). This variability means that people can always find *both* positives and

negatives about their experiences, though their Gestalt view may be either positive *or* negative. Such mixed experiences enable individuals to modify their statements to enhance their social identity. When receiving PWOM about competing SPs, the recipients, while not necessarily changing their overall attitudes toward the negative attributes of their own SP, will nevertheless focus on and reinforce the attitudes they have toward the positive attributes of the service, resulting in PWOM-G about own SP. This trend will also serve as an ego-defensive mechanism, such that others in the social group will believe that the recipients have made the right SP choice.

Two prominent types of response biases on the motives to engage in WOM communications are likely to reinforce such behavior: (1) social desirability bias, or the tendency to give answers that make the respondent look good in the eyes of others (Baumgartner & Steenkamp, 2001), and (2) acquiescence, or the tendency to agree rather than disagree with propositions in general (Baumgartner & Steenkamp, 2001). Consequently, when recipients are exposed to PWOM about a competing SP, especially in the context of a social group to which they strive to belong, they, partially driven by their need to be agreeable, are also likely to disseminate PWOM about the attributes of their own SP. Thus:

H1. PWOM-R about competitors increases recipients' PWOM-G about their own SP.

Will PWOM-R about competitors lead recipients to generate NWOM about own SP? As mentioned previously, information that confirms what the receiver believes about certain attributes of the service increases certainty and reinforces those beliefs, but such information is unlikely to change other aspects of a receiver's judgment and behaviors. SIT is consistent with this view. Tajfel and Turner (1979) suggest that social behavior varies along a continuum between inter-personal and inter-group behavior. Inter-personal behavior is behavior determined solely by the individual characteristics, and inter-group behavior is behavior determined solely by the social group. Tajfel and Turner argue that neither is likely to occur on its own and that a compromise is more likely to emerge, meaning that individuals try to

adjust their behaviors while not completely abandoning their beliefs. The positive tone set by the social group focuses attention on the positive attributes of the service. While the focus on the positives by the social circle will not totally detract the recipients from certain negative attributes of their own SP, the dominant positive tone is unlikely to either encourage or discourage them from generating NWOM. Therefore, in general, PWOM-R about competitors should not affect NWOM-G about own service. Mere receipt of PWOM about a competitor is unlikely to induce recipients to generate more or less NWOM about own SP, because the generation of NWOM about own SP in the context of receiving PWOM is unlikely to enhance their identity in the group of friends. Thus,

H2. PWOM-R about competitors has no significant effect on recipients' NWOM-G about their own SP.

What happens when a consumer receives NWOM about a competing SP? SIT is relevant for both PWOM-R and NWOM-R. However, prior research also shows that when the type of information received pertains to an unknown person or object, negative information is more salient than positive information (Ahluwalia et al., 2001). Consistent with this view, when consumers are exposed to NWOM about competing SPs of which they do not have intimate knowledge, they should be more likely to dwell on the negatives of service provision more than the positives. Doing so will lead to the generation of NWOM about their own SP. This tendency is also likely to be driven by the recipients' social identity needs. A focus on the negative attributes by the social group will make recipients modify their views so that they, too, emphasize the negatives to enhance their identity in the group (Tajfel & Turner, 1979). Such actions are likely to be reinforced by the same response biases that determine PWOM-R—namely, social desirability bias and acquiescence bias (Baumgartner & Steenkamp, 2001). Consequently, when individuals are exposed to predominant NWOM about a competing SP from their close social circle,

they will tend to be agreeable and also voice negatively about some attributes of their own SP. This negative disposition is likely to continue, leading to the further spread of NWOM.

How does NWOM-R about competitors affect recipients' generation of PWOM about their own SP? Recipients of information tend to weigh negative information more heavily because such information is often considered more diagnostic (Skowronski & Carlston, 1989). However, that negative information is more salient alone is unlikely to make recipients respond with PWOM about their own SP. The social context in which WOM is received is again important. When the overall tone of WOM-R is negative, recipients' identity needs in the group will induce them also to focus on the negatives, at the expense of positive attributes. Lim and Chung (2011) show that NWOM has a significantly lower impact on the evaluation of search attributes than on the evaluation of credence attributes, suggesting that the effects also depend on the service type. However, on balance, a priori NWOM-R should not have a significant effect on generation of PWOM. Thus:

H3. NWOM-R about competitors increases recipients' NWOM-G about their own SP.

H4. NWOM-R about competitors has no significant effect on recipients' PWOM-G about own SP.

2.2. Direct effects of PPCIs on WOM-G

Service marketing research focuses extensively on service failure, a common type of critical incident, including the types of service failures (Bitner et al., 1990), customer expectations of service recovery (Ringberg et al., 2007), and strategies for recovery efforts (Hoffman et al., 1995). Despite the rapid growth of service failure and recovery research, this research pays little attention to other types of critical incidents or examines the overall effects of PPCIs on WOM. Based on Bitner et al (1990)'s original conceptualization and Lovelock et al (2008)'s recent definition, the focus of the current study is

on critical incidents due to service employee behaviors. Although a few critical incidents pertain to other factors, such as equipment failure, the current study does not capture such incidents.

By definition, negative consequences such as switching, result from critical incidents inappropriately handled by the SP. However, when handled well, these incidents can be an opportunity to build relationships (Tax et al., 1998). Research suggests that when a critical incident occurs, consumers have an inclination to share it with others. Grace (2007), in a survey of service contexts, finds that more than 60% of consumers told others about the critical incidents. While the majority of respondents recalled spreading NWOM, some also engaged in PWOM due to PPCIs. Given the *remarkable* nature of critical incidents, greater WOM, be it positive or negative, is likely to be associated with such incidents. Therefore:

H5. PPCIs increase the propensity of recipients' (a) PWOM-G and (b) NWOM-G.

2.3. Interactive effects of P/NWOM-R about competitors and PPCIs

Prior research highlights significant interactive effects—that combine with customer satisfaction or other forms of affect—on NWOM behavior but not necessarily on PWOM behavior (Raimondo et al., 2008; Verhoef et al., 2002). The literature offers no clear explanations for this phenomenon, but several reasons exist. As discussed previously, recipients weigh information pertaining to a service's negative attributes more heavily (Fiske, 1980; Skowronski & Carlston, 1989). Mittal et al. (1998) also demonstrate that negative information has greater effects on receivers' judgments and behaviors than positive information. McColl-Kennedy et al. (2009) show that NWOM is closely associated with strong negative emotions, such as contempt, disgust, and rage. Ranaweera and Menon (2013), comparing multiple effects on PWOM and NWOM, respectively, find that the effects are much stronger on the latter. Finally, Meyer et al. (2002), based on a meta-analysis of studies that treat desired (approach) and undesired (avoidance) behaviors as dependent variables, find significant effects on avoidance but not on

approach behaviors. Extant literature therefore strongly indicates that the effects on negative emotions and behaviors are stronger than those on positive ones. Thus, in general, the combined effects of satisfaction *and* WOM-R and PPCIs, respectively, should be significant on NWOM behavior but not necessarily on PWOM behavior.

Services are intangible and difficult to evaluate (Shostack, 1977), and service delivery is variable (Lovelock et al., 2008). Thus, most customers are likely to have both positive and negative experiences with SPs. Therefore, despite the presence of either positive or negative Gestalt views, customers are likely to hold opposite views of certain attributes of the service they receive, which enable them to adjust their responses to WOM-R from their social circle. However, when recipients are *already* negatively pre-disposed toward their own SP (and have low satisfaction), PWOM-R about a competing SP will further weaken the bond and damage their existing relationship. Meta studies of relationship marketing theory suggest that when this damage occurs, the likelihood of negative behavior is reinforced (Palmatier et al., 2007). Thus, when customers are exposed to PWOM about competing SPs, such PWOM is likely to make their own SP appear even less desirable and induce them to display negative behaviors toward their own SP. Therefore:

H6. PWOM-R about competitors reinforces the negative effect of satisfaction on NWOM-G about own SP.

Similarly, when customers who are negatively pre-disposed toward their own SP receive NWOM about competitors, such information is likely to make their own SP appear more desirable. Specifically, attitudes are driven not only by experience with their own SP but also by what is available (i.e., the comparison set; Leischnig et al., 2011). With NWOM, the comparison others will appear less desirable, resulting in diminished negative attitudes toward own SP. Such diminished negative attitudes will translate into attenuated negative behavior (Hepler & Albarracín, 2013). Such a rationalizing

approach (Morris & Heaven, 1986) results in the realization that things are not that bad, leading to an attenuating effect on the propensity to generate NWOM. In other words, if competitors are bad, consumers are likely to adjust their expectations of own SP downward, inhibiting their negative behaviors toward own SP. Thus:

H7. NWOM-R about competitors attenuates the negative effect of satisfaction on NWOM-G about own SP.

This study proposes that PPCIs increase both PWOM-G and NWOM-G. But how does PPCIs interact with satisfaction in determining WOM-G? By definition, critical incidents have an inordinate impact on satisfaction (Barnes et al., 2013). These incidents, when combined with a negative attitude, have strong impacts on behaviors (Cheng et al., 2012). They create conditions in which customers are likely to feel an elevated level of anxiety about the encounter. Those in elevated emotional states tend to display stronger responses during service encounters, especially negative behaviors (Beaudry & Pinsonneault, 2010). When a customer in an elevated emotional capacity encounters a negative experience, the encounter is likely to lead to negative outcomes that are reinforced. For PWOM-G, as noted previously, research consistently finds significant interactive effects that combine with satisfaction on negative but not necessarily positive behaviors. Fiske (1980) and Skowronski and Carlston (1989) argue that this difference arises because consumers weigh a service's negative attributes more heavily than positive attributes. Thus:

H8. Critical incidents reinforce the negative effect of satisfaction on NWOM behavior but not the positive effect of satisfaction on PWOM behavior.

Figure 1 illustrates the conceptual model reflected by these hypotheses.

Insert Figure 1 about here

3. Research design

To test the hypotheses, surveys of customers of three different service contexts was conducted. These three contexts were chosen to reflect certain theoretical attributes highlighted in the hypotheses. They included a credence type service which is difficult to evaluate (a dental service), an experience type service that is also relevant from a sociability perspective (a high end pub/restaurant), and a technology mediated service (online retail store, Amazon.com). Unlike products, which are often characterized by search attributes, most services are either of experience or credence type. This, together with the selection of the online setting in addition to the two face to face interactions also ensured a broad range of empirical settings for the study. Consumers from a large metropolitan area in the United Kingdom, were sampled using a mall intercept technique. We selected a mainstream, multi-service Mall location, which catered specifically to customers of dental and restaurant services, as well as frequented by Amazon.com customers by virtue of the firm's mainstream appeal. Final year undergraduate students in Marketing were employed as research assistants to conduct the survey. The research assistants, after training received from one of the authors requested respondents to participate in the study on a voluntary basis. A total of 858 substantially complete responses (no missing data for the specific variables of concern) were collected ($N_{\text{Dentist}} = 273$; $N_{\text{Restaurant}} = 278$; $N_{\text{Etailer}} = 307$). The number refusing to respond was noted. Based on this, the surveys in combination achieved a valid response rate of 63%. The mean age of the respondents was 37, 33, and 31 years, respectively, for the dentist, restaurant, and etailer contexts (the average age of a person in the United Kingdom is approximately 39 years). The sample consisted of 43.5% men and 56.5% women in the dentist setting, 33% men and 67% women for the restaurant setting, and 49.2% men and 51.8% women in the etailer setting. When approaching potential respondents, it was ensured that the person responding to the survey was actively involved in decisions relating to the SP relationship of concern.

3.1 Construct measurement

3.1.1. Customer satisfaction

Consistent with prior research, satisfaction was captured as an overall evaluation of a service based on all prior (cumulative) experiences with the SP (Anderson & Fornell, 1994; Bitner & Hubbert, 1994). The service satisfaction scale was an adaptation of what was used previously by Crosby and Stevens (1987), Oliver and Swan (1989), and Jones et al. (2000). The scale consisted of a 5-item, 7-point semantic differential scale.

3.1.2. PWOM-R about competitors

Marketing scholars have regularly used WOM intentions as a proxy for measuring WOM behavior of respondents. However, such representations are only best approximations of actual behaviors (Mittal & Kamkura, 2001). As such, this study captured actual WOM behaviors displayed by the respondents over the period preceding the survey, by asking the respondent the frequency with which they performed three types of PWOM behaviors, anchored, never and all the time, on a 7-point scale. This approach is also consistent with that followed by Brown et al. (2005). The list of behaviors was based on the final items generated for measuring PWOM activity in a service context by Harrison-Walker (2001). The items were amended to reflect PWOM-R rather than PWOM-G.

3.1.3. NWOM-R about competitor

The same approach for measuring NWOM as for PWOM described previously was followed. The NWOM behaviors represented by the three items were adopted from Jones et al. (2007). Here too the items were amended to reflect NWOM-R rather than NWOM-G.

3.1.4. PPCIs

CIIs are in a special way, moments of truth that remain in the long term memory of the customer (Edvardsson, 1988). Such incidents have been categorized as employee response to service failure,

response to special customer requests, and employee actions during surprising and unpredictable events faced by customers (Bitner et al., 1990). Each type of critical incident is distinct but essential for capturing all such possible incidents during service interactions. In addition, these different types of unrelated incidents are best thought of as causal indicators. Thus, the scale was of formative type, and captured the perceived presence of the four common types of CIs. For such measures, both content and indicator specifications are critical (Diamantopolous & Winklhofer, 2001). As such, the items were selected to capture each type of incident identified in the literature, fulfilling the need for an exhaustive list of formative indicators (Bollen & Ting, 2000). The construct was captured by 4 items using a 7-point, Likert scale, anchored 'strongly agree' and 'strongly disagree'. It was also ensured that the wording fit the context of service delivery (Fornell, 1992).

3.1.5. PWOM-G about own SP

This is what has traditionally been measured as WOM in the past literature. In terms of scale type as well as content, this construct was captured using the same set of item as PWOM-R, but items from prior studies (referred to above) were used in their original form, vis-à-vis the amended items used to capture the PWOM-R construct.

3.1.6. NWOM-G about own SP

This construct too was captured using the same set of item as NWOM-R. As in the case of PWOM-G, items from prior studies (referred to above) were used in their original form, vis-à-vis the amended items used to capture the NWOM-R construct.

Please see Appendix for details.

4. Data analysis and results

The data was analyzed using a two stage process. During the first stage, the measurement model was tested using partial least squares (PLS) and the latent variable scores from PLS were saved. In the

second step, these scores were used to create the interaction terms, and as the inputs for regression analysis. While this approach has gained prominence over alternative approaches recently (Slotegraaf & Dickson, 2004), PLS is not new to the marketing literature (Fornell et al., 1982; Smith & Barclay, 1997) and is well established. The PLS estimation approach is a component based structural equation modeling technique that offers advantages over co-variance based approaches when an interacting model contains a mix of reflective and formative type measures (Chin, 1998). Where at least one component of the interacting variable is formative, the pair-wise multiplication of indicators is not optimal. Since formative indicators are not assumed to reflect the same underlying construct, the product indicators will not necessarily tap into the same underlying interaction effect (Chin et al., 2003). The two-stage process of explicitly estimating latent variable scores as inputs for the interaction terms and the subsequent regression analysis overcomes this limitation in co-variance based approaches.

The PLS algorithm was run separately for the purpose of calculating the latent variable scores for the three empirical contexts, and also using aggregate data for testing the reliability and validity of the measurement constructs. Measurement model results were aggregated across the three empirical contexts because measurement properties such as coefficient alpha and exploratory factor analysis results were consistent across the three contexts. Exploratory factor analysis of the items confirmed the uni-dimensionality of all the reflective type constructs. All reflective type scale items indicated high levels of internal consistency. Cronbach's α coefficients were well above the standards defined by Nunnally (1978) (see Appendix). One of our key constructs, however, is a formative measure, and measures of internal consistency are inappropriate for assessing formative measures (Bollen & Lennox, 1991). In particular, dropping an indicator from a formative construct could restrict the domain of the construct (Jarvis et al., 2003). Therefore, these tests were not used for the formative construct.

Preliminary data analysis using SPSS also indicated marginal levels of skewness and kurtosis associated with one construct, NWOM, but not to warrant data transformations. All the other constructs were will within acceptable levels in terms of both skewness and kurtosis. While taking the square root brought the values for NWOM under the 1.0 level, due to the known impact of such data transformations on tests for interaction effects, no data transformation was undertaken. For the three empirical settings, the bivariate correlations were generally consistent in terms of direction (Table 1).

Insert Table 1 about here

4.1. Measurement model

The PLS algorithm was run for the aggregate data to test for validity of the measurement model. As suggested by Bollen (1989), factor loadings and the squared multiple correlations between the items and the constructs were examined to further assess the validity of the measures. While factor loadings of less than 0.4 are considered the cut off limit for dropping items (Hulland, 1999), loadings of 0.60 are generally considered the minimal level at which convergent validity could be suggested (Bagozzi & Yi, 1988). All the measures displayed factor loadings well above these recommended values.

Analysis of Fornell and Larcker's (1981) criterion, which is based on the premise that a latent variable should better explain the variance of its own indicators than the variance of other latent variables, offered strong support for discriminant validity. Table 2 shows the cross-correlation matrix in which the square root of the average variance extracted (AVE) is compared to the correlations between the latent variable and all other latent constructs. The AVE for each latent variable is found to be greater than all the other correlations in the same rows and columns.

Insert Table 2 about here

4.2. Common method bias

This study followed several procedures to minimize the potential, and test for common method bias in self-reported data (Podsakoff et al., 2003). Item ambiguity was reduced and the items were mixed in the questionnaire so that respondents were not aware of the conceptual framework. Then, analysis to assess the severity of common method bias was performed. First, common method variance bias was tested with Harman's (1967) one-factor test. Test showed that measurement model factors are present and that the most covariance explained by one factor was 30.17%, indicating that common method bias is not a likely contaminant of the results. Second, in the data analysis stage, following Podsakoff et al. (2003), a PLS model was run with a common method factor whose indicators included indicators of all the principal constructs and calculated each indicator's variances as substantively explained by the principal construct. This analysis showed that average variance substantively explained by the variance of the indicators was 0.79, while the average method based variance was 0.14. In addition, most method factor coefficients are not significant. Given the magnitude and the insignificance of method variance, common method bias is unlikely to be of concern for this study.

4.3. Regression analysis

In the second stage, to test the hypotheses, a set of regression models of PWOM and NWOM behavior was run using the latent variable scores derived from PLS. The study followed recommended practice to avoid the common heuristics of moderated multiple regression models (Aiken & West, 1991; Irwin & McClellan, 2001). The origin of each continuous independent variable was changed through mean centering. Additional variables were created to capture the interactive effects. The interaction variables were based on mean centered data. Whenever a product term was included, its components were also included irrespective of their relative significance. Analysis was undertaken hierarchically to test for significant interaction effects over and above the main effects. Variance inflation factors (VIFs)

were examined for all estimations to test for multicollinearity, and were found to be well within the acceptable range. The resultant models for PWOM and NWOM are shown in Tables 3 and 4 respectively.

Insert Tables 3 & 4 about here

4.3.1. Regression models for PWOM

In Table 3, the direct effects only model is followed by the complete model including all possible interaction effects. Models 1, 2, and 3 relate to the three empirical settings. All the hypothesized relationships predicting PWOM behavior, except one, are confirmed. Results are consistent across all three settings. There is strong evidence that PWOM-R about competing SPs increases PWOM-G about own SP (H1). NWOM-R about competing SPs had no significant effect on PWOM-R about own SP in all settings except the dental service setting, partially confirming H4. There is also strong evidence to confirm the positive effect of PPCIs on PWOM-G (H5a). Finally, as expected the effects of the predictors are uniformly direct on the dependent variable of interest (PWOM), rather than interactive. Overall, the models have moderate explanatory power in all three empirical contexts (20%–35%).

4.3.2. Regression models for NWOM

In Table 4, the direct effects only model is followed by the complete model including interaction effects. Models 1, 2, and 3 relate to the three empirical settings. With a few exceptions, the hypothesized relationships predicting NWOM behavior are confirmed. PWOM-R is found not to have a significant effect on NWOM-G in two of three settings confirming H2. Yet, there is evidence that PWOM-R about competing SPs increases NWOM-G about own SP in the dental service. As hypothesized, NWOM-R about competing SPs had a significant, positive effect on NWOM-G about own SP (H3) in all three settings. The effect of PPCIs on NWOM behavior is mixed across the three settings. Data confirmed the positive effect of such incidents on NWOM in e-tail service, whereas a marginally significant effect ($\alpha =$

.10 level) is found in the dental service setting (H5b). However, unexpectedly a significant, *negative* effect is found in the restaurant setting.

In terms of the interactive effects, data confirms that PWOM-R about competitors significantly reinforces the effect of (dis)satisfaction on NWOM behavior (H6). However, this effect was found only in dental services. Similarly, NWOM-R about competitors is seen to significantly attenuate the effect of (dis)satisfaction on NWOM behavior (H7) in the dental services setting. Contrary to expectations, we also find a significant reinforcing effect of NWOM-R about competitors on NWOM-G about own SP in the restaurant setting.

Finally, PPCIs is found to reinforce the effect of (dis)satisfaction on NWOM behaviors both in online retail and dental service settings (partially supporting H8), but not in the restaurant setting. Overall, unlike in the case of PWOM, we found some highly significant interactive effects on NWOM behavior. This is also illustrated by the significant increase in adjusted R^2 value due to the addition of the interactive effects. The models have moderate to high explanatory power in the three empirical contexts, ranging from 27% to 44%. Table 5 provides a snapshot of the hypothesized findings across the three service settings.

Insert Table 5 about here

Overall, the incremental variance explained by the interactive effects was small. Nevertheless, results are still noteworthy since the problems of detecting interactive effects are well recognized (Evans, 1985). First, in field studies, interactive effects account for a very small portion of the additional variance explained (Champoux & Peters, 1987; Chaplin, 1991). Second, when main effects account for a large portion of the explained variance, the detection becomes even more problematic (McClelland & Judd, 1993). For NWOM, the direct effects account for 43%, 38%, and 22% of the variance respectively in e-tail, dental and restaurant setting, and the total effects including the interactive effects account for

44%, 41%, and 27% of the variance respectively. This means effect sizes, f^2 (Cohen, 1988) of 0.02, 0.05 and 0.07, respectively, which are considered small effect sizes for the interacting effects. However, it should be noted that as Cohen (1988) highlights, a small moderator effect, does not mean an unimportant effect for a field research.

5. Discussion

This study develops a theoretically grounded set of hypotheses that predict the effects of (1) WOM-R about competitors and (2) PPCIs (whether positive or negative) that customers face on WOM-G about own SP. Hypotheses were tested in three empirical settings, which helped increase external validity of the findings. Noting limitations of prior research, Gupta and Harris (2010) call for scholars to examine the effects of WOM across service categories. Thus, use of multiple settings is a particular strength of the current study. Although not all the effects were uniform across all three settings, the key effects were remarkably consistent, establishing evidence of generalizability.

The results show that PWOM-R about competitors *increases* the likelihood of generating PWOM about own SP (H1). The premise behind NPS, the popular business metric is that recipients of PWOM about a firm form preferential attitudes toward that firm, and, consequently, their loyalty to their current SP is negatively affected. However, the current results indicate that this is not necessarily the case and that PWOM-R about competitors does not mean a reduction in the generation of PWOM about own SP. On the contrary, consistent with predictions based on SIT (Tajfel & Turner, 1986), in social settings in which WOM is commonly generated, recipients of PWOM about a competing firm end up giving more PWOM about their own SP. Of note, this result is consistent in all three empirical settings.

Similarly, NWOM-R about competitors *increases* the likelihood of generating NWOM about own SP (H3). As in the case of PWOM, the premise behind NPS literature is that NWOM-R about competing SPs reinforces recipients' loyalty to own SP, thus increasing PWOM about own SP.

However, the trend emerging in all three settings is the opposite and receives support from SIT. This finding again highlights the importance of the social context in which WOM is generated and shows that recipients of WOM from close social groups try to act in a way that reinforces their self-concept in the group (Tajfel & Turner, 1986).

On receipt of PWOM/NWOM, recipients' latent positive/negative feelings toward own SP become more salient for the response behavior. This behavior is enabled by the *variability* inherent in services, which makes customers hold positive *and* negative attitudes toward different service attributes, while also maintaining either a positive *or* negative Gestalt view. These findings have important implications for service firms. They show that WOM occurs in social environments in ways that firms designing WOM strategies cannot always predict. Although service firms may treat WOM as a zero-sum game—i.e., that PWOM about one firm is detrimental to competing firms—this idea is not necessarily the case, because, as the findings show, PWOM about one firm motivates the generation of PWOM about other firms as well. The situation is identical for NWOM behavior. Consequently, both the benefits and losses of PWOM-G and NWOM-G, respectively, are likely to be over-stated.

Although two of the settings confirm the hypothesized effect of PWOM-R on NWOM-G, the dental setting was an exception. Specifically, in that setting, PWOM-R about competitors had a significant, positive effect on NWOM-G about own SP (H2). This result is likely due to the credence-type attributes associated with that setting, which makes it especially difficult for customers to evaluate (Bond, 1995). The difficulty of evaluating credence-type services is well established. First, consumers do not accurately understand the service they consume (Darby & Karni, 1973). Second, they possess few information cues or specified standards to evaluate the service outcome (Zeithaml, 1981). Third, customers lack clear expectations of the service because of the lack of expertise to identify and describe their own needs and demands (Bebko, 2000). In this context of uncertain or ambivalent attitude toward

own SP of a credence-type service, strong positive information about competing SPs will increase any doubts recipients may entertain. Consequently, PWOM about competitors lead consumers to question whether their own SP could offer better service than what they currently receive, and therefore they will adjust their judgment about their own SP and focus more on the negative attributes of the service (Mittal et al., 1998), leading to the generation of greater NWOM. In other settings in which customers are more secure about their own evaluations of the service, PWOM about competing SPs has no significant impact on generation of NWOM about own SP.

Similarly, in the credence setting, the effect of NWOM-R on PWOM-G is also unique (H4). With credence-type services, customers have uncertain attitudes toward their own SP because of the inherent difficulty in evaluation. Zeithaml (1981) suggests that this uncertainty is partly due to the few information cues or specified standards available to evaluate the actual service outcome. That is, a clear basis for comparison and for forming expectations is absent. In such a context, the receipt of strong negative information about competing SPs helps recipients form a comparison. Consequently, recipients are likely to view their own SP favorably, relative to the negative information they received about competing SPs. NWOM about competitors therefore motivates consumers to believe that their SP offers a better service than competitors. They adjust their judgment of their own SP upward. Such an adjustment leads to the generation of more PWOM. However, in the other two settings, as hypothesized NWOM-R about a competing firm has no impact on the generation of PWOM about own SP.

Service research identifies the importance of distinguishing service types because of their impact on service evaluation (Zeithaml, 1981). However, the results also highlight the importance of treating credence-type service settings as different because of the distinct mechanisms that govern the type and nature of WOM-G for these services. Although the aim of this study was not to establish whether service type caused the results, the credence nature of the service is a plausible explanation. This explanation is

also consistent with recent findings by Lim and Chung (2011) who found distinct impacts of WOM on the evaluation of credence type attributes.

Prior research indicates the importance of critical incidents to service firms. However, the literature review also shows limited examination of the effects of PPCIs on WOM behaviors. The current study addresses this gap. PPCIs consistently increase the likelihood of generating PWOM in all three contexts, highlighting the importance of critical incidents including non-performance, employee responses to special requests, surprising events, and C2C interactions within the servicescape. Regarding NWOM-G, although the effect is as expected in the online retail setting and marginally so in the dental service, PPCIs had a significant, negative effect in the restaurant setting, indicating that higher presence of critical incidents lowers NWOM. The restaurant setting is characterized by face-to-face interactions, and thus most critical incidents that result in negative experiences are likely to be promptly rectified, due to immediate feedback. The significant, positive correlation between PPCIs and satisfaction also lends support to this conclusion.

Overall, the interactive effects had significant effects only on NWOM, and not on PWOM. This finding illustrates that both what customers hear from others in social settings and what happens during service interactions have a significantly greater impact on negative behaviors, depending on the customer's level of satisfaction. That is, customers are more vulnerable, more impressionable, and thus more influenced by others when their expectations are not fulfilled (Andreasen & Manning, 1990). This notion is worth highlighting because research has paid scant attention to this distinction.

In the dental service setting, PWOM-R significantly increases the effect of (dis)satisfaction on the recipient's own NWOM behavior, but not in the online retail and restaurant settings (H6). When consumers lack insights into the dominant characteristics of a service, they tend to use both heuristic information available to them and physical evidence. Such information is likely to include what they

hear from others. Therefore, consumers' inability to evaluate credence-type services makes them more amenable to be influenced by what others say, and when they are less than fully satisfied, this effect is likely even more pronounced. In a context in which customers are doubtful whether their expectations are being fully met, while also receiving PWOM about competing SPs, such PWOM is likely to make their own SP appear even less desirable, and thus these consumers are more likely to display negative behaviors toward their own SP. This phenomenon can be called a double jeopardy. When customers have difficulty evaluating the service they receive, any PWOM they receive about competitors not only leads to the generation of more NWOM (direct effect) but also reinforces the effect of (dis)satisfaction on NWOM behavior. When service attributes are easier to evaluate, the same trend does not occur.

As expected, NWOM-R about competitors significantly reduced the effect of (dis)satisfaction on NWOM-G by the recipient in the dental setting. This effect, however, was non-significant in the online setting and, contrary to expectations, was significant and negative in the restaurant setting, indicating a negative reinforcing effect. The effect found in the dental setting can be explained as follows. In the context of ambivalent service evaluations, NWOM-R about competitors leads recipients to adjust their expectations and temper their behaviors, resulting in a reduction in the effect of (dis)satisfaction on NWOM-G. This attenuating effect can be contrasted with the reinforcing effect found in the restaurant setting. The unexpected effect means that the effect of (dis)satisfaction on NWOM-G for restaurants is even stronger when customers hear others being critical of competing restaurants. This result is likely a characteristic of the very high sociable context in which consumers comment about this type of service in general. In such a context, social identity needs motivate recipients of NWOM to give NWOM themselves and, thus, to reinforce their identity in the social group even more.

Consistent with the other interactive effects, PPCIs also has significant interactive effects on NWOM behavior, but not on PWOM behavior. PPCIs reinforces the effect of (dis)satisfaction on

NWOM behavior in both remote services and credence-type services. However, the effect is not significant in the restaurant setting. In credence-type service settings, especially when customers are already struggling to evaluate the service, any critical incident will generate even more anxiety for them. Similarly, remote services are characterized by a lack of a face-to-face interaction, which makes it difficult to get attention to any critical incident. The significant, negative effects indicate that in both these settings, SPs are better off proactively managing all critical incidents, with the aim to achieve positive customer experiences so that the potential negative effects of (dis)satisfaction on NWOM are not further reinforced. These two settings can be contrasted with a relatively simple, face-to-face interaction such as a restaurant setting, in which critical incidents can be promptly dealt with, causing minimum discomfort to customers. In settings that are inherently more likely to be critical, customers whose expectations are not met will react in predictably negative ways.

6. Theoretical and managerial implications

Libai et al. (2010) note that recognizing the need to understand WOM behavior in the context of C2C interactions is one of the key developments of customer management in recent years. They argue that investigating these developments presents both new opportunities and challenges for firms and researchers. In line with that call, the current research investigates the impact of WOM-R on WOM-G in social settings, between customers of competing SPs. The findings make several key theoretical and managerial contributions to existing literature.

The main theoretical contribution comes from the application of SIT to explain how, contrary to the popular view in the NPS literature, receipt of WOM (either positive or negative) about competing SPs leads to the generation of WOM of the *same valence* about own SP. The application of SIT helps highlight two fundamental points: (1) credible WOM is often given and received in social contexts, and (2) the social context exerts an impact on the way people respond to WOM-R because the norms

associated with friendly social interactions can be quite different from those associated with people who are *not* part of a close social circle. These findings demonstrate the importance of the context to valence of WOM-G; specifically, friendly social environments are likely to be distinct from a competitive or adversarial environment, in terms of how WOM recipients respond with their own WOM. Scant research, if any, highlights the relevance of the social environment to the valence of WOM. Strong evidence that contradicts assertions made in the NPS literature suggests that WOM exchanged in social settings has hitherto unforeseen consequences.

The findings also have some important lessons for managers. Recent research shows that 75% of WOM communications happen face to face and that other channels come a distant second (Lovett et al., 2013). Much of these face-to-face conversations likely occur within people's social circle. Thus, understanding the nature of the *response* to WOM-R in such circles should be a firm priority. This *response* can be derived from the positive main effects of P/NWOM-R on P/NWOM-G. This effect has major implications on the way firms should promote WOM. Specifically, PWOM-R about a competitor does not make recipients less loyal to their SP but rather makes them give PWOM about own SP. Therefore, firms should shift from a competitive mind-set to a cooperative one when it comes to promoting WOM. Research indicates that communicating a competitive advantage and differentiating itself from competitors is important for a firm to promote WOM among its loyal customer base (Lovett et al., 2013). When a clear differentiation and a significant competitive advantage exist, customers are likely to be drawn to and promote WOM about clearly superior firms. However, the nature of service industries is such that many competing firms offer uniform, homogenized services. Commoditization, benchmarking, and other competitive business practices have led to this trend, which occurs in a range of services, including banking, communications, financial services, transportation, travel, and hospitality. In such a context, firm communication that attempts to establish a clearly superior position

to a competing firm is likely to create two main problems related to customers' propensity to exchange both PWOM and NWOM about their SPs in close social circles.

First, the givers of WOM will have conflicting emotions about the superior positioning message from their SP when they themselves have a more balanced, mixed view. Such conflicting emotions will be similar to emotional labor spent by employees who see mixed messages coming from their employer (Bowen and Schneider, 1985). Specifically, when firms communicate a positioning to their customers that is different to what the firm actually practices, especially the frontline employees are known to struggle with this discrepancy through the expenditure of greater emotional labor. Similar emotions among customers will not compliment the generation of WOM. Second, the receivers of WOM will get conflicting messages, one coming from the firms highlighting competitive superiority and one coming from friends that is more mixed. This difference will lead to a perceived lack of credibility of the firm communication. Thus, firm communications that do not overtly contradict the WOM exchanged among friends during social interactions will be more credible. Such nuanced communication on the part of the service firm will compliment WOM exchanges, open customers to alternative value propositions, and increase the likelihood of retaining own customers and gaining a greater share of others' customers.

In social settings, customers also respond with NWOM to the NWOM they receive. Minimizing incidents that lead to NWOM is no doubt important. However, the results also suggest that the damage from NWOM to a specific SP will be limited due to all sharing NWOM about their respective SPs in close social circles. WOM-R and PPCIs consistently exert moderating effects on NWOM-G but not on PWOM-G, confirming prior trends in research. The significant interactive effects show that firms in credence settings need to take special care because ambivalent attitudes associated with the credence setting appear to make NWOM-G stronger. The results also show that the credence context is distinct from the other two contexts in terms of one direct effect as well. Specifically, P/NWOM-R can lead to

the generation of both positive *and* negative WOM highlighting that managing WOM is far more challenging in that context. Findings suggest that suppressing all WOM may be beneficial in credence settings. However, by highlighting the search and experience attributes of the service, firms offering services high in credence may be able to overcome the said challenges by creating perceptions of service performance that are less ambivalent. As elaborated in the next section, further research will help isolate the effects of the specific service context on the outcomes investigated.

7. Conclusions and directions for further research

This study provides firm evidence that the effects of WOM-R are counter to what the popular NPS literature implies, giving rise to significant implications for research. The implications arise from the norms that exist in social contexts in which credible WOM is often generated, a context so far neglected in the literature. The use of SIT to explain this phenomenon is a significant theoretical contribution to the field. Results strongly suggest that firms should refrain from communications that indicate a superior positioning to competition when such communications contradict more nuanced WOM exchanged in social settings. In this way, firms can better utilize the social norms of giving and receiving WOM in friendly environments and capture a greater share of wallet.

This research gives rise to several future research opportunities. First, the use of SIT to investigate C2C WOM conversations has significant potential. No clear understanding exists of how identity might complement or moderate established effects such as expertise and tie strength. Research is also lacking on how WOM-G in a competitive vis-à-vis collaborative and friendly atmosphere might affect recipient responses. For example, will recipients' reactions reverse due to the different set of social norms present in such an environment? Ego-defence mechanisms are also likely to be stronger and may inhibit the social desirability tendencies in such environments, reversing the trends. The same question arises when a power distance exists between the giver and the recipient. The power distance

will have impacts not only in relation to the personality characteristics of the giver and the recipient but also from the cultural traits of different nations. With different personality and cultural traits, the response to WOM-R may differ, even in the same social setting. In addition, the service type itself affects the outcome variables. Although this study presents plausible explanations for the findings in the different service settings, the study does not manipulate the settings to test the unique effects of the service type. An experimental design could address such issues, to exclude alternative explanations.

The investigation of critical incidents was also limited to employee-related activities. Customers can experience critical incidents during their interactions with other aspects of the SP, such as with equipment or facilities. Do PPCIs have different impacts than those found in the current study, when the incidents are associated with equipment and not people? In the event of PPCIs associated with face-to-face interactions, instant responses can lead to resolution / restitution. A critical incident associated with equipment failure, for example, may go unresolved for long periods, leading to more opportunities for WOM and thus, to more significant implications for the SP. Finally, extension of this research by investigating switching in response to PWOM-R and NWOM-R would likely have major managerial implications.

Recent research refers to the limitations common to regression-based techniques, especially when the correlations are in the 0.3–0.7 range, and recommend testing theory using algorithms (Woodside, 2013). Although the current approach of testing the hypotheses with data from multiple settings helps achieve common objectives of robust designs, such alternative tests will help improve the validity of results. Although the use of cross-sectional survey data can be helpful in understanding directional relationships among constructs, they do not allow for causal inferences. Such inferences are best confirmed using longitudinal designs.

References

- Abrantes, J. L., Seabra, C, Lages, C R. and Jayawardhena, C. (2013) "Drivers of in-group and out-of-group electronic word-of-mouth (eWOM)", *European Journal of Marketing*, Vol. 47:7, pp.1067 - 1088
- Ahluwalia, R.H., Rao Unnava, and Robert E. Burnkrant (2001), "The Moderating Role of Commitment on the Spillover Effect of Marketing Communications," *Journal of Marketing Research*, 38, pp. 458–70.
- Aiken, L. and S. West (1991) *Multiple regression: Testing and interpreting interactions*, Sage.
- Anderson, E. (1998) "Customer satisfaction and word-of-mouth", *Journal of Service Research*, 1(1), 5–17
- Anderson, E. W., and Fornell, C. (1994), "A Customer Satisfaction Research Prospectus", Roland Rust and Richard Oliver (Eds.) in *Service Quality: New Directions in Theory and Practice*, pp. 241-268 London: Sage.
- Anderson, E. W. Fornell, C., and Lehmann, D. (1994), "Customer Satisfaction, Market Share and Profitability: Findings from Sweden", *Journal of Marketing*, 58, July, pp.53-66
- Bagozzi, Richard P., and Youjae Yi (1988), "On the Evaluation of Structural Equation Models" *Journal of the Academy of Marketing Science*, 16(1), pp. 74-94
- Barclay (1997), "The Effects of Organizational Differences and Trust on the Effectiveness of Seller Partner Relationships," *Journal of Marketing*, 61 (January), pp. 3-21
- Barnes, Donald C.; Collier, Joel E.; Ponder, Nicole; Williams, Zachary (2013) "Investigating the Employee's Perspective of Customer Delight", *Journal of Personal Selling & Sales Management*, 33(1), pp. 91-104.
- Baumgartner, H., and J-B. Steenkamp (2001), "Response Styles in Marketing Research: A Cross-National Investigation," *Journal of Marketing Research*, 38 (May), 143-156.
- Baumgartner, H., & Steenkamp, J. B. E. M. (2001, May), "Response styles in marketing research: A cross-national investigation", *Journal of Marketing Research*, 38, 143–156
- Beaudry, Anne, and Pinsonneault, Alain (2010), "The Other Side Of Acceptance: Studying The Direct And Indirect Effects Of Emotions On Information Technology Use", *MIS Quarterly*, 34(4), pp.689-713.

- Bebko, Charlene Pleger (2000). "Service Intangibility and its Impact on Consumer Expectations of Service Quality", *Journal of Services Marketing*, 14, (1), 9-26
- Berthon, P., L. Pitt, and P. DesAutels (2011), Unveiling videos: Consumer-generated ads as qualitative inquiry, *Psychology & Marketing*, 28, 10, pp. 1044-58
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990), "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents," *Journal of Marketing*, 54 (January), 71-84.
- Bitner, M. J., and Hubbert, A.R. (1994), "Encounter Satisfaction versus Overall Satisfaction versus Quality", Roland T. Rust and Richard L. Oliver (Eds.) in *Service Quality: New Directions in Theory and Practice*, pp. 72-94, London: Sage.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.
- Bollen, K., & Lennox, R. (1991), "Conventional Wisdom on Measurement: A Structural Equation Perspective, *Psychological Bulletin*, 110(2), pp.305-314
- Bollen, K.A., & Ting, K.-F. (2000), "A Tetrad Test for Causal Indicators." *Psychological Methods* 5, 1, pp.3-22.
- Bolton, R. N., and K. N. Lemon (1999), 'A dynamic model of customers' usage of services: Usage as an antecedent and consequence of satisfaction'. *Journal of Marketing Research* 36(2), 171-186
- Bone, P. F. (1995), Word-of-Mouth Effects on Short-term Long-term Product Judgments, *Journal of Business Research* Vol. 32, 213-223
- Bowen, D. and B. Schneider (1985), "Boundary Spanning Employees and the Service Encounter: Some Guidelines for Management and Research", in J. Czepiel, M. Solomon, and C. Surprenant, *The Service Encounter*, Lexington, MA, Lexington Books, pp. 127-48.
- Brown, T. J., Barry, T. E., Dacin, P. A., & Gunst, R. F. (2005). Spreading the word: investigating antecedents of consumers' positive word-of-mouth intentions and behaviors in a retailing context. *Journal of the Academy of Marketing Science*, 33(2), 123-138.
- Burzynski, Michael H., & Bayer, Dewey J. (1977). The effect of positive and negative prior information on motion picture appreciation. *Journal of Social Psychology*, 101, 215-218
- Champoux, J.E., & Peters, W.S. (1987), "Form, effect size, and power in moderated regression analysis", *Journal of Occupational Psychology*, 60, 243-255
- Chaplin, W. F. (1991) "The next generation of moderator research in personality psychology" *Journal of Personality*, 59, pp. 143-178.

- Cohen, Jacob (1988) *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Lawrence Erlbaum.
- Crosby, Lawrence, and Stephens, Nancy (1987), "Effects of Relationship Marketing on Satisfaction, Retentions, and Prices in the Life Insurance Industry, *Journal of Marketing Research*, 24(November), PP. 404-11
- Darby, M. R., and E. Karni (1973), "Free Competition and the Optimal Amount of Fraud," *Journal of Law and Economics*, 16 (April), 67-86.
- Diamantopoulos, A., & Winklhofer, H. (2001). "Index Construction with Formative Indicators: An Alternative to Scale Development", *Journal of Marketing Research*, Vol.38 (2), pp.269-277.
- Edvardsson, Bo (1988), "Service quality improvement", *Managing Service Quality*, 8, 2, pp. 47-59
- Evans, M.G. (1985) "A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis", *Organizational Behavior and Human Decision Processes* 36, pp. 305–323.
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, 38(6), 889–906
- Fitzsimons, G. J., & Lehmann, D. R. (2004). When unsolicited advice yields contrary responses. *Marketing Science*, 23(1), 82–95
- Fornell, Claes .(1992) "A National Customer Satisfaction Barometer: The Swedish Experience" , *Journal of Marketing*, 56 (1), pp. 6-21
- Fornell, Claes, & Bookstein, F. L. (1982). "Two structural equation models: lisrel and pls applied to consumer exit-voice theory." *Journal of Marketing Research* (November), 440-452
- Fornell, Claes, and David F. Larcker, (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18, Iss. 1, pp. 39-51
- Godin, Seth (2009), "Purple Cow: Transform Your Business by Being Remarkable", The Penguin Group, NY.
- Grace, Debra (2007), "How Embarrassing! An Exploratory Study of Critical Incidents Including Affective Reactions", *Journal of Service Research*, 9, 3, pp. 271-85
- Gremler, D.D. (1994), "Word-of-mouth about service providers: an illustration of theory development in marketing", in Park, C.W. and Smith, D. (Eds), *AMA Winter Educators' Conference Proceedings: Marketing Theory and Applications*, American Marketing Association, Chicago, IL, pp. 62-70.

- Gremler, Dwayne D., and Mary Jo Bitner (1992), "Classifying Service Encounter Satisfaction Across Industries," in *AMA Winter Educators' Conference Proceedings: Marketing Theory and Applications*, Vol. 3, C. T. Allen and T. J. Madden, eds., Chicago, IL: American Marketing Association, 111-118.
- Gupta, P., and Harris, J. (2010), How e-WOM recommendations influence product consideration and quality of choice: A motivation to process information perspective, *Journal of Business Research*, Vol. 63, pp. 1041-1049
- Gupta, Sunil, and Valarie Zeithaml (2006), Customer Metrics and Their Impact on Financial Performance, *Marketing Science*, Vol. 25, No. 6, pp. 718-739
- Harman, H.H. (1967), *Modern Factor Analysis*, Chicago: University of Chicago Press.
- Hepler, Justin, and Albarracín, Dolores (2013) "Attitudes without Objects: Evidence for a Dispositional Attitude, Its Measurement, and Its Consequences", *Journal of Personality & Social Psychology*, 104(6), pp.1060-1076.
- Herr, Paul M., Kardes, Frank R., & Kim, John (1991), "Effects of word-of-mouth and product attribute information on persuasion: An accessibility–diagnosticity perspective", *Journal of Consumer Research*, 17(4), 454–462
- Hoffman, K. D., Scott Kelley, & Holly Rotalsky (1995), "Tracking service failures and employee recovery efforts," *Journal of Services Marketing*, 9, 2, pp. 49-62
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20, 195-204
- Irwin, Julie R., and Gary H. McClelland (2001), "Misleading Heuristics and Moderated Multiple Regression Models", *Journal of Marketing Research*, Vol. 38, Feb, pp. 100-09
- Jarvis, C. B., S. B. MacKenzie, and P. M. Podsakoff (2003). 'A critical review of construct indicators and measurement model misspecification in marketing and consumer research', *Journal of Consumer Research*, 30(2), pp. 199–218
- Jones, Michae. A., Mothersbaugh, D. L., and Beatty, S. E. (2000), "Switching Barriers and Repurchase Intentions in Services", *Journal of Retailing*, 76(2), pp. 259-274
- Keaveney, Susan M. (1995), Customer Switching Behavior in Service Industries: An Exploratory Study, *Journal of Marketing*, Vol. 59, No. 2, pp. 71-82

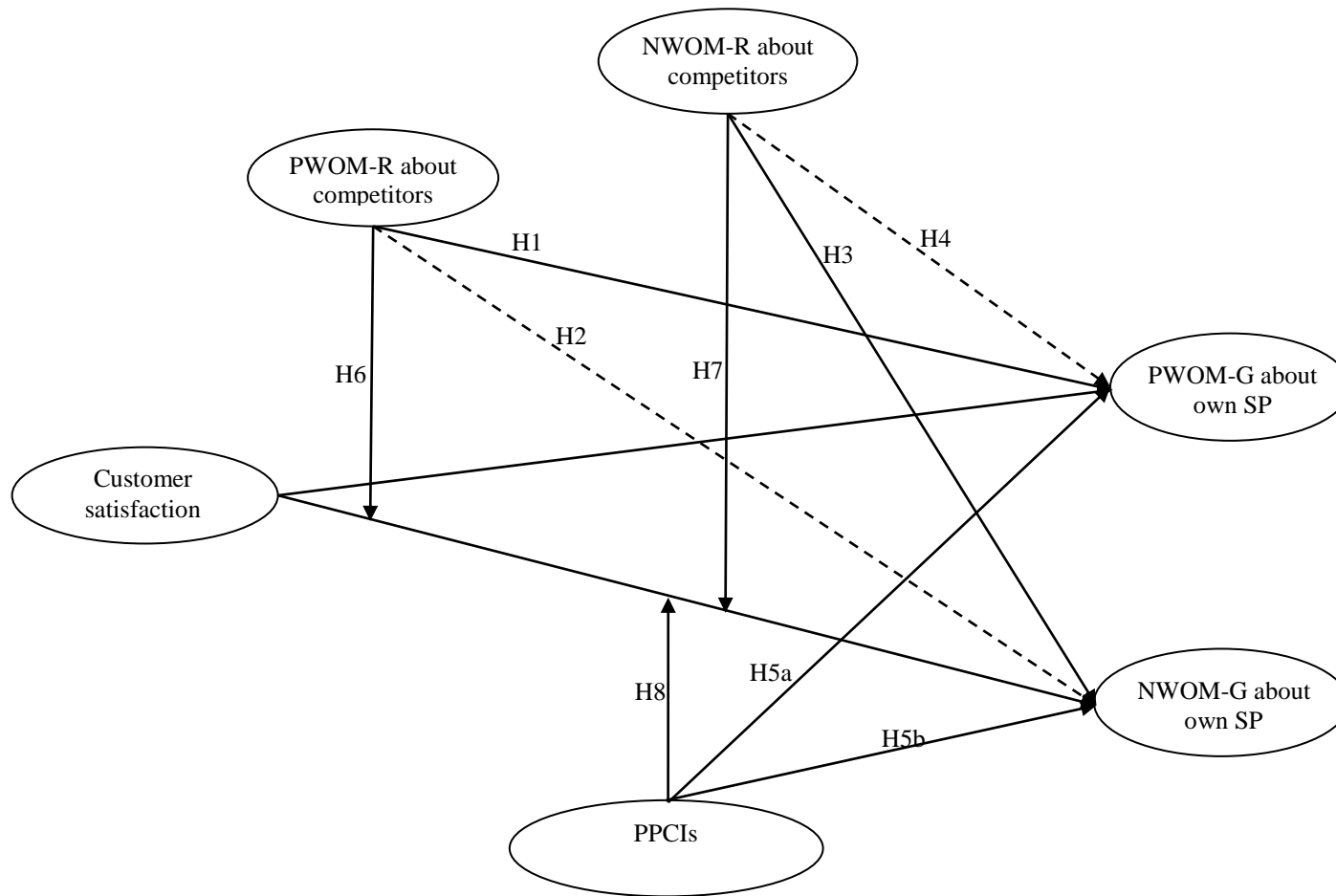
- Keiningham, Timothy, Bruce Cooil, Tor Andreassen, & Lerzan Aksoy (2007), "A Longitudinal Examination of Net Promoter and Firm Revenue Growth", *Journal of Marketing*, 71. 3. pp. 39-51
- Khare, A., L. Labrecque, and A. Asare (2011), The Assimilative and Contrastive Effects of Word-of-Mouth Volume: An Experimental Examination of Online Consumer Ratings, *Journal of Retailing*, 87. 1, pp. 111-126.
- Kim, S., and Park, H. (2013), "Effects of Various Characteristics of Social Commerce (s-commerce) on Consumers' Trust and Trust Performance", *International Journal of Information Management*, 33, pp. 318-332
- Leischnig, A, Schwertfeger, M., and Geigenmüller, A. (2011), "Shopping events, shopping enjoyment, and consumers' attitudes toward retail brands - An empirical examination", *Journal of Retailing and Consumer Services*, 18(3), pp. 218–223
- Libai, B., R Bolton, MS Bügel, K De Ruyter, O Götz, H Risselada, (2010), "Customer-to-customer interactions: broadening the scope of word of mouth research", *Journal of Service Research*, 13 (3), pp. 267-282
- Lim, B. C., and Chung, C. M. Y (2011), The impact of word-of-mouth communication on attribute evaluation, *Journal of Business Research*, Vol. 64, pp. 18-23
- Lovelock, Christopher, Jochen Wirtz, and H Bansal (2008), *Services Marketing: People, Technology, Strategy*, Canadian Edition, Pearson Canada Inc, Toronto.
- Lovett, M. R. Peres, and R. Shachar (2013) "On Brands and Word of Mouth" *Journal of Marketing Research*, 50.4., pp. 427-444
- Martin, W. C., and Lueg, J. E. (2013), "Modeling word-of-mouth usage", *Journal of Business Research*, 66, pp. 801-808
- McClelland, G. H., & Judd, C. M. (1993) "Statistical difficulties of detecting interactions and moderator effects", *Psychological Bulletin*, 114, pp.376–390
- McColl-Kennedy, J. R., P. G. Patterson, A. K. Smith, & M. K. Brady (2009), "Customer Rage Episodes: Emotions, Expressions and Behaviors", *Journal of Retailing*, 85, 2, pp. 222-237
- Mittal, V., & Kamakura, W. A. (2001). Satisfaction, repurchase intent and repurchase behavior: Investigating the moderating effect of customer characteristics. *Journal of Marketing Research*, 38(1), 131–142.

- Mittal, V., Ross, W. T., & Baldasare, P. M. (1998), The asymmetric impact of negative and positive attribute-level performance on overall satisfaction and repurchase intentions, *Journal of Marketing*, 62, 33–47
- Morgan, Neil A., and Lopo Leottte do Rego (2006), “The Value of Different Customer Satisfaction and Loyalty Metrics in Predicting Business Performance,” *Marketing Science*, 25 (5), 426–39
- Morris, John, and P. Heaven (1986), “Attitudes and Behavioral Intentions toward Vietnamese in Australia”, *Journal of Social Psychology*, 126(4), pp. 513-520
- Nunnally, J. C. (1978), *Psychometric theory* (2nd ed.). New York: McGraw-Hill
- Oliver, Richard L. (1980), A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions, *Journal of Marketing Research*, 17(November): 460-469
- Oliver, Richard L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*, McGraw Hill, New York
- Oliver, Richard L. and Swan, J. E. (1989), Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach, *Journal of Marketing*, 53(April): 21-35.
- Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006), “Factors Influencing the Effectiveness of Relationship Marketing: A Meta-Analysis”, *Journal of Marketing*, 70(October), 136-153.
- Podsakoff, P., S. MacKenzie, J. Lee, & N. Podsakoff. (2003), “Common method biases in behavioral research: A critical review of the literature and recommended remedies”, *Journal of Applied Psychology*, 88(5), 879-903.
- Raimondo, Maria, Miceli Gaetano, and Michele Costabile (2008), “How Relationship Age Moderates Loyalty Formation: The Increasing Effect of Relational Equity on Customer Loyalty,” *Journal of Service Research*, 11 (2), 142-160
- Ranaweera, Chatura, and K. Menon (2013), “For Better or for Worse? Adverse Effects of Relationship Age and Continuance Commitment on Positive and Negative Word of Mouth”, *European Journal of Marketing*, 47(10).
- Reichheld, F. (2003), “The One Number You Need to Grow,” *Harvard Business Review*, 81 (December), 46–54
- Reichheld, F. (2006), “The Ultimate Question: Driving Good Profits and True Growth”, Boston: Harvard Business School Press.

- Ringberg, T., Odekerken-Schroder, G., and Christensen, G.L. (2007), "A cultural models approach to service recovery", *Journal of Marketing*, Vol. 71, July, pp. 194-214.
- Russo, Edward J., Margaret G. Meloy, and Victoria Husted Medvec (1998), "Predecisional Distortion of Product Information," *Journal of Marketing Research*, 35 (November), 88–101.
- Shostack, Lynn (1977), "Breaking Free from Product Marketing", *Journal of Marketing*, 41, pp.73-80
- Skowronski, John J., and Donal E. Carlston (1989), "Negativity and Extremity Biases in Impression Formation: A Review of Explanations," *Psychological Bulletin*, 105 (January), 889–906.
- Slotegraaf, Rebecca J., and Peter R. Dickson (2004), "The Paradox of a Marketing Planning Capability," *Journal of the Academy of Marketing Science*, 32 (4), 371-385
- Smidts, A., A. Pruyn, and C. van Riel (2001), "The impact of employee communication and perceived external prestige on organizational identification", *Academy of Management Journal*, pp.1-29.
- Stokburger-Sauer, N. (2010), "Brand community: drivers and outcomes." *Psychology & Marketing*, 27.4, 347-368.
- Swanson, S & S Kelley (2001), "Service quality attributions and word of mouth intentions", *European Journal of Marketing*, 35, 1-2, pp. 194-211
- Szymanski, David M., and David H. Henard (2001), "Customer Satisfaction: A Meta-Analysis of the Empirical Evidence," *Journal of the Academy of Marketing Science*, 29 (1), 16-35.
- Tajfel, H., & Turner, J. C. (1979), "An integrative theory of intergroup conflict", in W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations*, Monterey, CA, pp.33–47.
- Tajfel, H., & Turner, J. (1986), "The social identity theory of intergroup behavior" in S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 7–24), Chicago, IL: Nelson-Hall.
- Tax, S.S., Brown, S.W., and Chandrashekar, M. (1998), "Customer evaluations of service complaint experiences: implications for relationship marketing", *Journal of Marketing*, Vol. 62, pp. 60-76.
- Tronvoll, B. (2011), "Negative emotions and their effect on customer complaint behavior", *Journal of Service Management*, 22, 1, pp. 111-134
- Vázquez-Casielles, R., Suárez-Álvarez, L., and Río -Lanza, A. D. (2013), "The Word of Mouth Dynamic: How Positive (and Negative) WOM Drives Purchase Probability", *Journal of Advertising Research*, March, pp. 43-60
- Verhoef, Peter C., Gerrit Antonides, & Arnoud N. de Hoog (2004), "Service Encounters as a Sequence of Events: The Importance of Peak Experiences," *Journal of Service Research*, 7(1), 53-64.

- Verhoef, Peter C., Philip H. Franses, and Janny C. Hoekstra (2002), "The Effect of Relational Constructs on Customer Referrals and Number of Services Purchased From a Multiservice Provider: Does Age of Relationship Matter?" *Journal of the Academy of Marketing Science*, 30 (3), 202-216.
- Wang, C., J. Harris, and P. Patterson (2012) "Customer choice of self-service technology: the roles of situational influences and past experience", *Journal of Service Management*, 23(1), pp.54 – 78
- Wangenheim, Florian, & Tomas Bayon (2004), "The effect of word of mouth on services switching: Measurement and moderating variables", *European Journal of Marketing*, 38, 9/10, pp.1173-85
- Whyte, William H., Jr. (1954). "The Web of Word of Mouth", *Fortune*, Vol. 50, pp 40-46
- Woodside, Arch, G. (2013), "Moving beyond multiple regression analysis to algorithms: Calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory", *Journal of Business Research*, 66, pp 463–472
- Zeithaml, V.A. (1981), "How Consumer Evaluation Process Differ Between Goods and Services" in Donnelly, J. and George, W. (eds.), *The Marketing of Services*, American Marketing Association, Chicago, pp. 186-90

Fig. 1. Conceptual model.



Note: Broken lines indicate hypothesized non-effects.

Appendix: Item Descriptions and PLS Measurement Model Results for Latent Constructs

Item description	μ (σ)	Scale Type		
		7-Point Likert		
		λ	Cronbach's α	AVE
Customer Satisfaction <u>How do you feel about the service you receive from XXX?</u> Very displeased – Very pleased Very unfavorable – Very favorable Very dissatisfied – Very satisfied Very unhappy – Very happy	5.3 (1.1)	0.88 0.90 0.90 0.90	0.92	0.80
Received PWOM about competitors <u>Indicate how often the following happened recently:</u> A person close to you recommended a competitor of XXX to you A person close to you spoke positively of a competitor of XXX Others mentioned to you that they do business with a competitor of XXX	3.1 (1.5)	0.90 0.92 0.85	0.87	0.79
Received NWOM about competitors <u>Indicate how often the following happened recently:</u> A close friend/relative warned you not to do business with a competitor of XXX A close friend/relative complained to you about a competitor of XXX A close friend/relative told you not to use the services of a competitor of XXX	2.3 (1.3)	0.89 0.88 0.90	0.87	0.79
PPCIs An employee of XXX responded when you felt that the service had failed An employee of XXX responded to a special request that you made An employee of XXX surprised you by their actions An employee of XXX responded towards another customer who was being troublesome	3.3 (1.4)	Formative type scale		
Given PWOM about own SP <u>Indicate how often you did the following soon after your received information about a competing SP:</u> Mentioned to others that you do business with XXX Recommended XXX to people close to you Spoke positively of XXX to people close to you	4.0 (1.6)	0.85 0.93 0.90	0.87	0.79
Given NWOM about own SP <u>Indicate how often you did the following soon after your received information about a competing SP:</u> Warned your close friends or relatives not to do business with XXX Complained to your close friends or relatives about XXX Told your close friends or relatives not to use XXX	2.0 (1.2)	0.88 0.88 0.91	0.86	0.79

Table 2

Discriminant validity: Fornell–Larcker criterion test.

Construct Correlation Matrix with Root of AVE on Diagonal					
	CS	NWOM	NWOM-R	PWOM	PWOM-R
CS	0.89				
NWOM	-0.29	0.89			
NWOM-R	-0.12	0.50	0.89		
PWOM	0.28	0.07	0.28	0.89	
PWOM-R	-0.04	0.30	0.52	0.38	0.89

Table 3

Regression analysis results based on two-stage PLS latent variable scores.

	Dependent Variable: PWOM towards own SP											
	<i>Online Retailer Setting</i>				<i>Dental Service Setting</i>				<i>Restaurant Setting</i>			
	Model 1,1: Direct effects only		Model 1,2: With moderator effects		Model 2,1: Direct effects only		Model 2,2: With moderator effects		Model 3,1: Direct effects only		Model 3,2: With moderator effects	
Independent variables	B⁵ (t)	VIF⁶	B (t)	VIF	B (t)	VIF	B (t)	VIF	B (t)	VIF	B (t)	VIF
Customer Satisfaction (CS)	0.26 (4.9)	1.1	0.26 (4.8)	1.1	0.32 (6.4)	1.1	0.33 (6.2)	1.2	0.23 (4.1)	1.1	0.22 (3.8)	1.2
PWOM-R (about competitors)	0.17 (2.9)	1.3	0.17 (2.8)	1.3	0.30 (5.1)	1.5	0.32 (5.1)	1.6	0.23 (3.9)	1.3	0.23 (3.6)	1.3
NWOM-R (about competitors)	0.02 (0.3)	1.5	0.03 (0.4)	1.6	0.13 (2.2)	1.6	0.12 (2.0)	1.6	0.06 (1.1)	1.3	0.06 (1.0)	1.4
Perceived Presence of CIs	0.31 (5.6)	1.2	0.31 (5.5)	1.2	0.27 (5.2)	1.1	0.27 (5.0)	1.2	0.23 (4.1)	1.2	0.24 (4.0)	1.3
CS × PWOM-R			0.05 (0.9)	1.3			0.04 (0.6)	1.5			0.01 (0.1)	1.4
CS × NWOM-R			0.01 (0.2)	1.5			-0.06 (-1.0)	1.5			0.06 (1.0)	1.3
CS × PPCIs			-0.04 (-0.8)	1.1			0.02 (0.5)	1.2			-0.04 (-0.7)	1.2
Adjusted R²	20%		20%		35%		35%		24%		24%	

^{NH} = Not hypothesized; * = Significant at the 0.10 level. CIs = critical incidents.

⁵ Standardized coefficients (and t values)

⁶ Variance Inflation Factor

Table 4

Regression analysis results based on two-stage PLS latent variable scores.

	Dependent Variable: NWOM towards own SP											
	<i>Online Retailer Setting</i>				<i>Dental Service Setting</i>				<i>Restaurant Setting</i>			
	Model 1,1: Direct effects only		Model 1,2: With moderator effects		Model 2,1: Direct effects only		Model 2,2: With moderator effects		Model 3,1: Direct effects only		Model 3,2: With moderator effects	
Independent variables	B⁷ (t)	VIF⁸	B (t)	VIF	B (t)	VIF	B (t)	VIF	B (t)	VIF	B (t)	VIF
Customer Satisfaction (CS)	-0.19 (-4.3)	1.1	-0.19 (-4.3)	1.1	-0.24 (-4.8)	1.1	-0.36 (-3.5)	1.2	-0.20 (-3.5)	1.1	-0.21 (-3.6)	1.2
PWOM-R (about competitors)	0.01 (0.2)	1.3	0.02 (0.4)	1.2	0.33 (5.7)	1.6	0.29 (4.9)	1.6	-0.07 (-1.2)	1.3	-0.08 (-1.4)	1.3
NWOM-R (about competitors)	0.54 (10.1)	1.5	0.53 (9.8)	1.6	0.28 (4.7)	1.6	0.28 (4.7)	1.6	0.45 (7.5)	1.3	0.47 (8.1)	1.4
Perceived Presence of CIs	0.12 (2.5)	1.3	0.13 (2.7)	1.2	0.01 (0.2)	1.2	0.08 (1.6)*	1.3	-0.14 (-2.4)	1.3	-0.14 (-2.3)	1.3
CS × PWOM-R			-0.04 (-0.9)	1.3			-0.15 (-2.7)	1.5			-0.01 (-0.1)	1.4
CS × NWOM-R			0.03 (0.5)	1.5			0.12 (2.1)	1.5			-0.22 (-3.7)	1.3
CS × PPCIs			-0.10 (-1.8)*	1.2			-0.10 (-2.0)	1.3			-0.02 (-0.4)	1.3
Adjusted R²	43%		44%		38%		41%		22%		27%	

^{NH} = Not hypothesized; * = Significant at the 0.10 level. CIs = critical incidents.

⁷ Standardized coefficients (and t values)

⁸ Variance Inflation Factor

Table 5 Snapshot of results across the three service settings.

		Online	Dentist	Restaurant
<i>H₁:</i>	<i>PWOM-R from others about competitors will increase the recipients' PWOM-G about their own SP.</i>	√	√	√
<i>H₂:</i>	<i>PWOM-R about competitors will have no significant effect on the recipients' NWOM -G about their own SP.</i>	√	<i>Positive effect found</i>	√
<i>H₃:</i>	<i>NWOM-R about competitors will increase recipients' NWOM-G about their own SP.</i>	√	√	√
<i>H₄:</i>	<i>NWOM-R about competitors will have no significant effect on the recipients' PWOM-G about own SP.</i>	√	<i>Positive effect found</i>	√
<i>H_{5a}:</i>	<i>PPCIs will increase the propensity for PWOM-G</i>	√	√	√
<i>H_{5b}:</i>	<i>PPCIs will increase the propensity for NWOM-G</i>	√	√*	<i>Negative effect found</i>
<i>H₆:</i>	<i>PWOM-R about competitors will reinforce the negative effect of satisfaction on NWOM-G about own SP.</i>	<i>ns</i>	√	<i>ns</i>
<i>H₇:</i>	<i>NWOM-R about competitors will attenuate the negative effect of satisfaction on NWOM-G towards own SP.</i>	<i>ns</i>	√	<i>Reinforcing effect found</i>
<i>H₈:</i>	<i>PPCIs will reinforce the negative effect of satisfaction on NWOM-G.</i>	√	√	<i>ns</i>

√ - *As hypothesized*

√* - *As hypothesized (marginally significant at 0.10 level)*

ns – *Not significant*