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HANDLING NEGATIVE ONLINE CUSTOMER REVIEWS: THE EFFECTS OF ELABORATION LIKELIHOOD MODEL AND DISTRIBUTIVE JUSTICE

Vincent T. P. Cheng
Mei Kun Loi

ABSTRACT. Online customer reviews have received considerable attention in hospitality research because of their impact on hotel sales. In practice, control the creation of these reviews, especially those from negative perspectives. However, hotel managers can control how they respond to such negative reviews. This study examines the effects of two important factors that could enable marketers to formulate their responses in a manner that will positively influence customers who have read negative reviews. The study used a quasi-experimental design with 259 respondents. Elaboration likelihood model (ELM) routes and outcomes that led to the occurrence of distributive justice were modeled as moderating variables. Compared with conventional complaint handling methods, posting a response that adopted a central route to persuasion was found to be most effective for handling negative reviews.

KEYWORDS. Online customer reviews, elaboration likelihood model, trust, distributive justice, hotel

INTRODUCTION

Online customer reviews have become one of the most significant information sources affecting travelers' behavior in selecting hotels. Even the mere presence of reviews can increase travelers' awareness of the hotel (Vermeulen & Seegers, 2009). Furthermore, a study has shown that online customer reviews have a significant impact on hotels' business and performance (Ye, Law, & Gu, 2009). Consequently, online customer reviews have received considerable attention in hospitality and marketing research (Litvin, Goldsmith, & Pan, 2008; Ye et al., 2009; Ye, Law, Gu, & Chen, 2011). Most of the

research has concentrated on identifying factors that lead customers to post reviews on different platforms and how these may be moderated or mediated by variables such as valence and framing, leading to variations in customer brand equity or willingness to purchase. These studies provide a rich source of such antecedents and moderators and their roles and relationships in the study of the impact of online customer reviews.

The valence of online customer reviews is an important antecedent that eventually affects customers' intention to purchase the product (Sparks & Browning, 2011). Negative online customer reviews will damage the brand and

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lead to loss of both existing and new customers. There are studies that focus on negative online reviews, for instance, a study on the effects of negative online customer reviews on customer attitudes showed that the proportion and quality of the change in attitude among customers depends on the level of their involvement (Lee, Park, & Han, 2008). However, not enough research has been conducted to understand the underlying mechanism on how online reviews affect customers' purchasing intention, especially in case of a first-time purchase. Negative reviews are not desirable and it is difficult to control the appearance of negative online reviews. Research suggests that managerial responses to online reviews have a significant impact on hotel bookings (Ye, Gu, Chen, & Law, 2008). Hotels should direct more efforts toward managing negative online reviews by responding to them with appropriate strategies. Through these responses, hotels can minimize adverse effects and increase customers' intention to purchase their products. Despite understanding the importance of responding to online reviews, hotel managers are unskilled in combating negative customer reviews (Freed, 2011). Although some industrial sources offer advice to deal with such responses, very few of them are backed by solid research.

This study examines the impact of two important factors, identified from marketing literatures, which will significantly influence customers' behavior when they read the hotelier's response to negative online reviews. These factors consist of the adoption of central or peripheral routes of the elaboration likelihood model (ELM) in review responses, and the presence or absence of an offered outcome under distributive justice theory. This study uses an experimental approach to investigate the strength of the moderating effect of these factors on the customers' intention to purchase. We hope that the findings of this study can contribute to the underlying theory on the management of negative online customer reviews that has not been addressed in existing literatures. On the practical side, it will help the hotel's management in formulating appropriate strategies for writing responses to negative online customer reviews.

THEORETICAL BACKGROUND

Trust and Intention to Purchase

Purchasing services from unknown hotels in unfamiliar places presents many uncertainties for customers and thus has a high perceived risk that is a critical determinant of a customer's willingness to make a booking (Grewal, Gotlieb, & Marmorstein, 1994). Consulting online customer reviews that is a special form of word of mouth could be a way for them to reduce or eliminate the uncomfortable feeling of risk exposure by obtaining more information regarding the hotel from alternative sources instead of merely visiting the service provider's website (Buttle, 1998). Word of mouth is usually considered by customers to be trustworthy and independent of corporate influence (Murray, 1991). This approach can be viewed as an attempt to boost trust among customers and enhance their faith in the services promised. Empirical studies have shown that customers are more likely to rely on word of mouth in the service context because of the intangibility and experiential nature of services (Murray, 1991; Zeithaml, Berry, & Parasuraman, 1993).

Trust is considered one of the cornerstones in customer relationships, creating a bond between the customer and the brand (Hiscock, 2001). There are various definitions of trust and most of them are related to risk. For instance, trust refers to "a willingness to rely on an exchange partner in whom one has confidence" (Moorman, Deshpandé, & Zaltman, 1993, p. 82). Trust is the "willingness to take risk" that leads to risk taking in a relationship moderated by perceived risk (Mayer, Davis, & Schoorman, 1995, p. 712). Trust exists "when one party has confidence in an exchange partner's reliability and integrity" (Morgan & Hunt, 1994, p. 23). Researchers have found that trust in a brand positively affects intention to purchase (ITP; Sichtmann, 2007). This might be even more crucial for hotel bookings because of the intangible nature of the services they provide. However, little is known about the effect of online customer reviews on hotel sales through their impact on trust.

To study the mechanism of how the antecedents of online customer reviews affect

trust and, ultimately, the customer's ITP, it is crucial to utilize scales that measure trust. Few trust scales are available in marketing research. Soh, Reid, and King (2009) have developed an adtrust scale that measures trust in advertising. However, online customer reviews cannot be considered as advertisements. Others have developed scales to measure brand trust. Delgado-Ballester, Munuera-Aleman, and Yague-Guillen (2003) defined brand trust as "the confident expectation of the brand's reliability and intentions in situations entailing risk to the customer" (p. 37). The brand-trust scale developed by Delgado-Ballester et al. (2003) consists of two theoretical dimensions: reliability and intentionality. The reliability dimension concerns the perception that the brand can fulfill or satisfy customers' needs. This dimension has a technical nature and is related to whether the brand can achieve what it has promised to deliver to its customers. If a brand were considered as the promise of future performance (Deighton, 1992), the accomplishment of this promise will lead to increased customer trust in the brand. On the other hand, the intentionality dimension reflects an emotional security related to faith in the brand's reliability. This dimension associates with customers' belief that the brand will take care of their needs in the consumption of the product even if adverse conditions are encountered. This belief can be developed beyond the presence of evidence. These dimensions are two different perspectives that customers consider when judging a brand trustworthy. Gurviez and Korchia (2003) have proposed another multidimensional brand-trust scale that defines the trust concept with three dimensions: credibility, integrity, and benevolence. Credibility is the assessment of the brand's ability to meet customers' expectations. Integrity refers to the honesty of claims made by the brand and benevolence refers to the attribution of a customer-oriented policy with consideration of customers' interests.

In the context of developing trust for a hotel's product based on online customer reviews, customers do not have the time to go through the lengthy process of familiarization that leads to brand trust. They refer to the vicarious experiences of other customers by reading a limited

number of reviews to develop trust that the hotel will deliver the promised services. Even though the time frame is different, the accumulation of customer's impression and, thus, the development of trust on the hotel by reading the online reviews might be similar. This research proposes that the brand-trust scales can be applied to this new context to measure the trust on the hotel. We adopt the scale developed by Delgado-Ballester et al. (2003) because it is more vigorously tested and suitable for adapting to the research context.

Travelers certainly need a willingness to take risks to stay at hotels that they select based on different sources of information. Online customer reviews are perceived as an important way of reducing this risk. Therefore, we hypothesize that when customers read online customer reviews, they will be influenced by the reviews to form different levels of trust on the hotel. This variation in trust level will lead to changes in the customer's intention to purchase hotel services. Since trust may be evaluated on the dimensions of reliability and intentionality, two hypotheses are posited as follows:

- H1a: A change in the level of trust in the reliability dimension will lead to a change in customers' level of intention to purchase in the same direction.
- H1b: A change in the level of trust in the intentionality dimension will lead to a change in customers' level of intention to purchase in the same direction.

The Elaboration Likelihood Model

The ELM is a persuasion model widely used in marketing to explain how different types of messages influence customers' attitudes and purchasing decisions. Petty and Cacioppo (1986b) posited two routes to persuasion: central and peripheral. The ELM argues the use of a continuum to determine the extent of elaboration or thoughtful processing of information versus peripheral cues that shape persuasion. In the central route of persuasion, receivers are active participants in the process because they are engaged in thoughtful consideration of the arguments, ideas, or contents of the message. For

example, hotels could provide detailed description of their services and facilities and explain how their services can lead to the guests' satisfaction. Whereas in the peripheral route to persuasion, the recipient makes less cognitive effort and thus decides whether or not he or she agrees with the message based on other factors rather than on the strength or quality of the arguments. For example, in the hotel industry, the use of star rating and quoting of awards received from some premier travel magazines in their marketing materials to support their claim on quality of service. Some factors including involvement, argument quality, argument quantity, and source factors are found to have different effects on the two routes to persuasion. Strong arguments can be considered as a central cue since research has shown that they consistently create more favorable thoughts and fewer unfavorable thoughts than weak arguments (Petty & Cacioppo, 1984). On the other hand, credible sources are more likely to act as a peripheral cue to influence attitude change on topics with less involvement (Hass, 1981).

The ELM is a framework based on the classification of processing style, while in actual marketing process, objective cues are what the customers are presented. One of the difficulties in the application of ELM is the determination of "which cue would be processed in which way under the particular sets of circumstances" (Bitner & Obermiller, 1985, p. 421). In order to perform "central processing," the customer must have the motivation and the ability to think about the cue and its content. To be motivated, the recipient of the message must care about the subject of the message of persuasion. In order for it to work effectively, the recipient should not be distracted or have trouble understanding the message. On the other hand, when the message consists of many arguments and the recipient is not interested or lacks the ability to analyze them carefully, a peripheral process is often used.

When customers read online reviews in the process of searching for a hotel, they are likely to be in a high-involvement state and there is generally no limit to the number of reviews they are prepared to read. Therefore, in this study, emphasis is placed on the difference in argument

quality and source factors when adopting different routes to persuasion in response to negative online customer reviews. For the central route, the cue is focused on supplying a managerial response with a strong quality of argument to customers reading online reviews. On the other hand, a strong source factor, such as the use of expert or authoritative sources, is used as a peripheral cue in the managerial response adopting a peripheral route. Other factors like involvement and argument quantity are considered to be constant in both types of response in this research. It is hypothesized that the presence of different routes to persuasion based on ELM has a moderating effect on the relationship of trust with the customer's ITP. Therefore, the following hypotheses are posited:

- H2a: The use of different routes to persuasion will have a different moderating effect on the relationship between the reliability dimension of trust and ITP.
- H2b: The use of different routes to persuasion will have a different moderating effect on the relationship between the intentionality dimension of trust and ITP.

Distributive Justice

When customers are dissatisfied with the product or service that they have purchased, they may complain though many of them do not really register their complaints (Andreasen & Best, 1977). The handling of customer complaints, whether formalized or not, is important, as they affect a number of postpurchase actions taken by the customer (Andreasen & Best, 1977). For example, customers who had unsatisfactory experiences with service providers and whose complaints are not appropriately handled may make their opinions known through negative online customer reviews. Complaint management can lower the total marketing expenditure by reducing the cost of advertising (Fornell & Wernerfelt, 1987).

Research on conventional complaint handling reveals that customers will consider the benefits of complaining or other outcomes that are a function of the payoff from complaining minus

the cost of complaining (Walster, Berscheid, & Walster, 1973). The outcome is defined as “the positive and negative consequences that a participant or observer perceives a participant has incurred as a consequence of his relationship with other” (p. 152). According to Adams’ (1963) equity theory, customers compare their input into a given situation and outcomes from the situation with the ratio of inputs and outcomes of a referent other. A high-outcome policy for handling customer complaints is most effective in minimizing resentment and negative word-of-mouth comments (Lapidus & Pinkerton, 1995).

For understanding the effectiveness on the use of outcomes in complaint handling, it is critical to understand individual response to a variety of conflicting situations. This can be explained by the construct of perceived justice that consists of distributive justice, interactional justice, and procedural justice. A study of the role of satisfaction with complaint handling in influencing customers’ attitudes and repurchasing decisions indicates that distributive justice has the strongest impact (Orsingher, Valentini, & de Angelis, 2010). Distributive justice, in a complaint-handling context, refers to ‘the perceived fairness of the remedy offered by the seller’ (Blodgett, Hill, & Tax, 1997, p. 186). It focuses on the expectation of the outcome offered to the customer to resolve the complaint. The outcome as defined above can be financial compensations like refunds, exchanges, and discounts on future purchases or a combination of these. It can also be a social resource such as an apology (Gu & Ye, 2013). In recent research, there is much debate on the subject of “what is fair” or whose concept of fairness should be utilized to settle these complaints (Laczniak & Murphy, 2008).

However, there are differences between negative online customer reviews and conventional customer complaints. Responses with outcomes posted on an electronic platform are accessible by the public, whereas a complaint made by a customer to a hotel is of a one-on-one nature that can be privately handled between the two parties. In the former situation, the outcome is just a gesture that is made to prospective customers to show that the hotel will offer such

compensation should dissatisfaction occur during the service, whereas in the latter, the issue is resolved directly with the said customer. Furthermore, the public readers of complaints posted on an electronic platform are usually prospective customers. It is unclear whether an outcome that is effective in the complaint-handling situation would also be effective if offered in response to negative online reviews. Despite this, Outcome is still very useful in complaint handling and online managerial responses are highly effective among low satisfaction customers (Gu & Ye, 2013). An outcome in the form of financial compensation is proposed to have a positive moderating effect on the relationship between trust level developed based on reading the negative online reviews and the customer’s ITP.

H3a: The presence of a financial compensation outcome in the response will have a positive and moderating impact on the reliability dimension of trust and ITP.

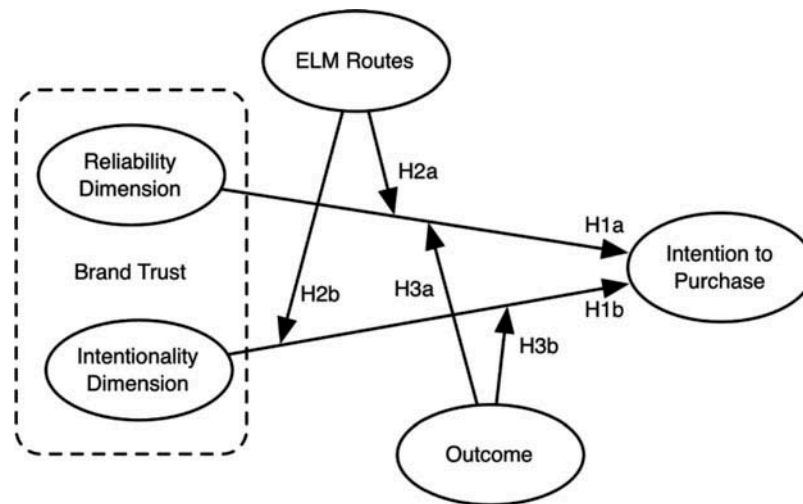
H3b: The presence of a financial compensation outcome in the response will have a positive and moderating impact on the intentionality dimension of trust and ITP.

RESEARCH DESIGN

Experimental Design and Subjects

The design of the research hypothesis is depicted in Figure 1. The research used a quasi-experiment with a two- (ELM routes: central vs. peripheral) by-two (distributive justice: with vs. without outcomes) mixed factorial design for the types of response to the negative online customer reviews. A control group with no response to the negative online reviews was used to test whether the response to the reviews made a difference. The respondents were 259 final year Chinese undergraduate students in Macau where English is the teaching media. Although they were university students from Macau, they had extensive travel experience in regional countries. With

FIGURE 1. Research Hypotheses



the strong economic growth in Asia (including Macau), Asian travelers are visiting Western Europe in large numbers and Macau university students are part of this trend. Indeed, most of these university students have indicated their intention to visit Western Europe in the next 1–2 years (including Paris). The participants were randomly divided into five groups. The homogeneous student sample afforded stronger inferences regarding the variables than would be a representative sample (Calder, Phillips, & Tybout, 1981; Lynch, 1982). Other studies have reported that this design helps to provide a control for intelligence, social class, and some aspirational factors (Cheema & Kaikati, 2010; Grewal, Cline, & Davis, 2003). The sample comprised of 68% females and 32% males. Of the respondents, 88% had experience in making purchases on the Internet and 92% had read some kind of online customer reviews. Hence our sample selection could be seen as a compatible representation of new youth travelers who made use of online customer reviews in their search for travel information. The participants represented a generation (that is, homogenous group) that is willing to shop on the Internet.

Instrument and Procedure

A structured questionnaire was used to conduct the research. Three genuine negative

reviews and one positive genuine review of a small boutique hotel in Paris were selected from tripadvisor.com. These online reviews are shown in Table 1. Since it was unlikely that the respondents would have had prior knowledge of this hotel, the effect of hotel familiarity was minimized. Furthermore, as tripadvisor.com is a well-known hotel review site, its use maximized the respondents' trust in the source of the online reviews. The reason for including one positive review was that it would be rare for a customer to consider a hotel if all the reviews were negative and this is also unlikely to happen in reality. Furthermore, Doh and Hwang (2009) have posited that the credibility of the online review sites can be damaged if all reviews were of the same valence. Consideration is also given on amount of information that needs to be read by the respondents and on not making the reading boring, hence, four reviews were included.

The instructions on the questionnaire provided background information to the respondents about the hypothetical hotel search activity. These included the purpose of their trip and the chosen hotel had already met other selection criteria—such as price, quality, and location. This minimized the effect of other background factors. Before completing the various rating scales, the respondents were asked to read a simple description of the hotel, its online reviews,

TABLE 1. Online Customer Reviews

Valence	Review content
Negative	The website shows this nice atmosphere and beautiful rooms, but it is the exact opposite. The rooms are disgusting, the staff is so rude and condescending, and they charge you for every little thing you do. We couldn't wait to get out of there. This ruined our trip!
Negative	I didn't like this hotel because it was quite unclean and the staff wasn't terribly friendly. I mentioned the uncleanliness about it to the staff and the response was "That's Paris." I stayed here for nine nights and I wasn't happy with it being that I had already paid my travel agent. The hotel was located in a good area, but it was unclean. The shower was unclean. Every time I flushed the toilet, water would leak out onto the floor. I can handle small, but not dirty.
Negative	Like others, this is a big "ratonera de cantazo" (mice net), smelly room, dirty bathroom, you can even move in that room smell like a dirty (Letrina) or septic tank! Don't stay there.
Positive	We arrived late on Friday night what with the train strike in Paris and the rugby final a day away and we were given the last room in the hotel, which was a double bedded room, for which you needed a degree in acrobatics to access But when we got to the room, it was clean, the bathroom was small but acceptable and the bed was excellent. Breakfast in the mornings was adequate and the staff really helpful.

and its responses to negative reviews. Since marketers can only control the cues of the two ELM routes rather than how the readers process the cues, the responses constructed in the research tried to follow the results of previous researches on the likelihood of processing style adopted by the customers in response to a particular type of cue. Therefore, the central-route persuasion-style hotel response contained strong arguments to explain the incident described in the negative review. It was formulated and presented as follows:

We apologize for not meeting the expectations of customers that found us through our website. We want to clarify that we have tried to provide the best service in our

class, but the three-star rating in France is based on the presence or absence of certain features in the hotel. We are afraid that this might create a gap in the expectation of service level. Our staff is not very strong in spoken English and this might cause some misunderstanding in their responses to our guests.

The hotel's response contains peripheral cues that emphasized credible sources to underscore that the hotel did provide good service:

Our hotel has been rated by About-France.com as one of best hotels in terms of service in our rating class (three star). Simonseeks has also described us as a hotel that delivered warm and delightful service. We have routinely received positive comments about our staff's helpfulness toward our guests.

In dealing with complaining customers, offering discount or cash coupons is a common practice in the hotel industry. The following response describes the outcome offered to the customers that posted the negative reviews:

In order to show our sincere desire to deal with the dissatisfaction of our unhappy customers, we would like to ask you to contact us directly to let us know about the details of the case. We will present you with a half-price coupon to stay in our hotel during your next visit.

The scales were adopted from the existing literature, as shown in Table 2. Two scales were added to test the homogeneity among the groups in terms of their reliance on word-of-mouth information. The trust scale from Delgado-Ballester et al. (2003) was adopted because it has been tested vigorously and few other scales are available. A new measure (ITP3) was also added to the ITP scales to reflect the fact that in searching for hotel information, customers usually shortlist a number of hotels for further comparison. Two other scales are added to test the respondent's attitude on the credibility

TABLE 2. Scales Used in the Study

Constructs and scales		Source
BT1 BT2 BT3 BT4	<i>Brand Trust Reliability Dimension (BTR)</i> Hotel A meets my expectation. I feel confidence in Hotel A. Hotel A would not disappoint me. Hotel A guarantees satisfaction.	(Delgado-Ballester et al., 2003)
	<i>Brand Trust Intentionality Dimension (BTI)</i> Hotel A would be honest and sincere in addressing my concerns. Hotel A would make any effort to satisfy me. I could rely on Hotel A to solve the problem of the hotel room. Hotel A would compensate me in some way for the problem with the room.	(Delgado-Ballester et al., 2003)
	<i>Intention to Purchase (ITP)</i> How likely would you book from Hotel A? How likely is that you will recommend hotel A to your friends? How likely would you include Hotel A in you shortlisted hotel for final comparison?	(Park et al., 2007; Park & Kim, 2008) Added by the authors
	<i>Characteristic of respondents on the reliance of online reviews</i> Other peoples' comments are very important for me to make purchase decision. I spent a lot of time surfing the Internet for online reviews before I decide upon purchase a product.	(Srinivasan & Ratchford, 1991)
T1 T2	<i>Credibility of online reviews</i> The online reviews of the hotel are credible. The responses from the hotel are credible.	Added by the authors

of online reviews and hotel responses. All the scales used a 7-point Likert scale ranging from *strongly agree* or *very high* to *strongly disagree* or *very low*.

RESEARCH RESULTS

Analysis of Data

A one-factor ANOVA was conducted to test the scores of all the groups on scales T1 to T4 and the results are summarized in Table 3. For scale T1, the mean of all respondents was 2.7 with a standard deviation of 1.36 and the *F*-value among groups was 2.06 with a *p*-value of .0868. However, a Tukey simultaneous comparison showed no significant different between group pairs. For T2, the mean of all respondents was 2.7 with a standard deviation of 1.3, and the *F*-value was 0.33 with a *p*-value of

TABLE 3. ANOVA Analysis Among Respondent Groups on Internet Behaviors

Questions	Mean	Standard deviation	<i>F</i> -value	<i>p</i> -value
T1	2.7	1.36	2.06	.0868
T2	2.7	1.30	0.33	.8601
T3	3.5	1.01	1.56	.2002
T4	3.6	1.07	0.65	.5869

.8601. Therefore, the groups were homogeneous and readily relied on online information before deciding to purchase a product. The importance of other people's comments in their purchase decision making was also high and had a slight degree of variation among the groups. For T3, the mean was 3.5 with a standard deviation of 1.01 and the *F*-value was 1.56 with a *p*-value of .2002. This shows that the groups

were homogenous and held a neutral position in view of whether the online reviews were credible. T4 was only applicable to groups that read the hotel's response to the online reviews. The mean was 3.6 with a standard deviation of 1.07 and the *F*-value was 0.65 with a *p*-value of .5869. Again, the groups were uniform and slightly positive in their views of whether the hotel response was credible.

Analysis was conducted to examine whether the response had any significant effect on ITP and then followed by tests on the effect of the moderating variables. Since the last question of the intentionality dimension involved compensation from the hotel, it is not included in the analysis with the presence of a financial outcome. The analysis used the partial least square (PLS) technique due to the method's ability to use a smaller set of data, the more relaxed requirement for the normality of data, and the ease of testing the moderating effects of the variables. The software SmartPLS (Ringle & Alexander, 2005) was used to perform the analysis. The procedure of the analysis followed the recommendations by Hair, Ringle, and Sarstedt (2011) and Henseler, Ringle, and Sinkovics (2009), using two stages of testing for measurement and structural models.

The testing of a measurement model consists of checking internal consistency reliability (should be $> .7$), indicator reliability ($> .70$), convergent validity (average variance extracted [AVE] $> .5$), and discriminant validity (AVE of each latent variable is larger than the variable's highest squared correlation with any other latent variable). The test of the multicollinearity of variables was also performed in this study (variance inflation factor [VIF] > 1).

The testing of a structural model involves examining the *R*-square values of the endogenous variable; values of .67, .33 and .19 can be described as having substantial, moderate, or weak explanation power, respectively. Since the direction is known, the following critical *t*-values for a one-tail test were used: 1.282 ($p = .1$), 1.645 ($p = .05$), 1.960 ($p = .025$) and 2.326 ($p = .01$). We used blindfolding to check for predictive relevance; *Q*-square values of .35, .15 and .02 could be described as large, medium, and small, respectively. To test for moderating

effects, if the change in *R*-square for the interaction term (moderating variable \times exogenous value) was statistically significant, the moderating variable was said to have a moderating effect on the path linking the exogenous and endogenous variables (Baron & Kenny, 1986; Kim, Kaye, & Wright, 2001).

Results of the Analysis

All the latent variables and indicators were tested according to the procedure outlined above to check the quality of the measurement model. The test results shown in Table 4 delineate that the scales satisfied the requirements of the tests.

The first group of the sample with no response shown was coded as A and the remaining four groups were coded according to the type of response that the respondents read: B—central route, C—central route with outcome, D—peripheral route, and E—peripheral route with outcome. Each group from B to E was tested against A to see if the treatment (the presence of an outcome) of that group had a significant effect on customers' ITP. Each group pair was subjected to the tests outlined above for structural models using SmartPLS with the presence or absence of the response as a moderating variable. The results of the testing of structural models are shown in Table 5. The term "Response" appearing in the Table refers

TABLE 4. Testing of Measurement Model

Internal consistency, indicator reliability, and convergent validity				
	No. of items	AVE	Composite reliability	Cronbach's alpha
BTI	4	.6118	.8626	.7876
BTR	4	.7414	.9197	.8833
ITP	3	.8375	.9392	.9029
Discriminant validity				
	BTI	BTR	ITP	
BTI	.6118*	0	0	
BTR	.3617	.7414*	0	
ITP	.2988	.5486	.8375*	

Note. *The AVE of each latent variable.

TABLE 5. Testing Results on Different Group Combinations

Test AB—Response: Central route				
Path		Path weight	t-value	
Response	→ ITP	-.001	0.0039	ITP $R^2 = .606$
BTI	→ ITP [^]	.396	2.6090***	ITP $Q^2 = .466$
BTI × Response	→ ITP [^]	-.648	1.5697*	
BTR	→ ITP [^]	.438	2.8611****	
BTR × Response	→ ITP [^]	.667	1.3711*	
Test AC—Response: Central route + Outcome				
Path		Path weight	t-value	
Response	→ ITP [^]	-.696	1.4284*	ITP $R^2 = .387$
BTI	→ ITP	.016	0.1139	ITP $Q^2 = .281$
BTI × Response	→ ITP	.250	0.4261	
BTR	→ ITP [^]	.519	4.2299****	
BTR × Response	→ ITP	.387	0.6898	
Test AD—Response: Peripheral route				
Path		Path weight	t-value	
Response	→ ITP	.27	1.1187	ITP $R^2 = .576$
BTI	→ ITP [^]	.21	2.5297****	ITP $Q^2 = .475$
BTI × Response	→ ITP	-.204	1.2345	
BTR	→ ITP [^]	.712	7.3276****	
BTR × Response	→ ITP	-.205	0.2233	
Test AE—Response: Peripheral route + Outcome				
Path		Path weight	t-value	
Response	→ ITP	.235	1.0023	ITP $R^2 = .675$
BTI	→ ITP [^]	.190	1.2939*	ITP $Q^2 = .574$
BTI × Response	→ ITP	-.137	0.3594	
BTR	→ ITP [^]	.786	6.2215****	
BTR × Response	→ ITP	-.242	0.3814	
Test BC—Central route – Effect of outcome				
Path		Path weight	t-value	
Outcome	→ ITP	-.339	0.8725	ITP $R^2 = .454$
BTI	→ ITP	.096	0.7365	ITP $Q^2 = .342$
BTI × Outcome	→ ITP	.075	0.1858	
BTR	→ ITP [^]	.528	4.4424****	
BTR × Outcome	→ ITP	.295	0.4418	
Test BD—Outcome Absent – Effect of routes				
Path		Path weight	t-value	
Routes	→ ITP	-.301	1.1890	ITP $R^2 = .608$
BTI	→ ITP [^]	.344	2.7997****	ITP $Q^2 = .495$
BTI × Routes	→ ITP	-.154	0.4703	
BTR	→ ITP [^]	.413	3.0857****	
BTR × Routes	→ ITP [^]	.574	1.5038*	

Note. [^] = path has significance.

* $p = .1$. ** $p = .05$. *** $p = .01$. **** $p = .001$.

to the managerial response with different combinations (routes and outcome) used in the experiment.

All the models tested had substantial-to-medium *R*-square values and predictive relevance in the ITP variable. This implied that the research framework provided a good explanation of the causal relationship between online customer reviews and ITP where trust is the mediating variable. In all the tests, the trust reliability (BTR) \rightarrow ITP path had a significant effect at the $p = .01$ level and had a weight of .438 to .790. Therefore, BTR had a strong effect no matter what type of response was present and the reliability dimension of trust and ITP hypothesis (H1a) was supported. On the other hand, trust intentionality (BTI) \rightarrow ITP only had significance in Test AB (central-route response) and Test AD (peripheral-route response) when no outcome was present. The intentionality dimension of trust and ITP hypothesis (H1b) was supported only when no outcome was present.

In assessing the effect of the presence of a response (R), significant moderating effects existed on both trust paths (BTI \times R \rightarrow ITP and BTR \times R \rightarrow ITP) only when a central route response without the presence of an outcome was used. When the response used a central route with the presence of an outcome, the response itself was significant but had a negative weighting to ITP. The use of a peripheral-route response had no significant effect on ITP whether or not an outcome existed, although the BTI \times R \rightarrow IPB path in Test AD has a *t*-value of 1.2345, which is close to the $p = .1$ level. However, it should be noted that the addition of an outcome in the peripheral response actually reduced the significance and weighting of BTR \rightarrow ITP and made BTI \rightarrow ITP in Test AE not significant.

In view of the above, two further tests were conducted. The first test had no outcome in the response with the aim of testing the effect of different routes (Test BD). The second test had a central-route response in order to test the effect of outcome (Test BC). The results of these tests are also shown in Table 5. In Test BC, when a central-route message was used, the outcome did not have any significant moderating effect

TABLE 6. Hypotheses Testing

Path	Hypothesis	Result
Trust-Reliability \rightarrow ITP	H1a	Supported
Trust-Intentionality \rightarrow ITP	H1b	Supported (no outcome)
Routes \times Trust-Reliability \rightarrow ITP	H2a	Supported
Routes \times Trust-Intentionality \rightarrow ITP	H2b	Not supported
Outcome \times Trust-Reliability \rightarrow ITP	H3a	Not supported
Outcome \times Trust-Intentionality \rightarrow ITP	H3b	Not supported

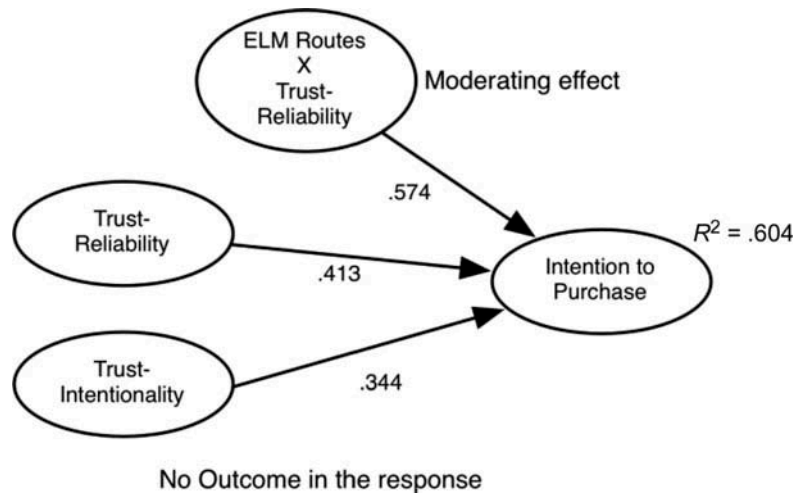
on the trust to ITP paths. On the other hand, in Test BD, when no outcome was offered, the use of different ELM routes did have a moderating effect on the BTR \times ELM \rightarrow ITP path ($t = 1.5038$, $p = .1$). There were no moderating effects on path BTI \times ELM \rightarrow ITP and both paths BTR \rightarrow ITP and BTI \rightarrow ITP had significance. Therefore, the ELM routes had a moderating effect on trust in the ITP path when no outcome was present in the reliability dimension, and the change from peripheral to central route led to an increase in ITP. Therefore, Hypothesis H2a was supported and H2b was not supported. On the contrary, the outcome did not have a moderating effect on trust's impact on ITP. Therefore, Hypotheses H3a and H3b were not supported. Table 6 shows the summary of the results of hypotheses testing.

DISCUSSION

Theoretical Implications

The result of the analysis is displayed in Figure 2 which shows only those paths that correspond to the supported hypotheses. The *R*-square values of the ITP variable in the tests reveal that the causal model proposed in this study to explain the effect of online customer reviews on customers' ITP has substantial explanation power. This is critical because the analysis of the moderating effect has to rely on the validity of this causal relationship. In other words, online customer reviews affect the trust

FIGURE 2. Results of Analysis



of the reader, which in turn leads to different levels of ITP. The study also found that the brand-trust scale proposed by Delgado-Ballester et al. (2003) could be applied in the context of trust-building through the reading of online customer reviews. However, it was discovered that although the reliability dimension was significant in all the tests, the intentionality dimension had significance only when no outcome was present.

The reliability dimension pertains to the perception that the hotel can fulfill or satisfy customers' needs, whereas the intentionality dimension reflects an emotional security about the belief that the hotel will take care of future problems when using the product. The results of test BD suggest that in the absence of an outcome, the ELM routes had a positive moderating effect on the reliability dimension but not on the intentionality dimension. This means that the difference in the ELM routes might change the customers' perception that the hotel can fulfill his or her immediate accommodation needs. The intentionality dimension focuses on the belief that goes beyond available evidence that the hotel will take care of unforeseeable problems should there be any change in circumstances. The present findings might imply that the group of customers in this study, that is, young travelers, did not consider this as an important consideration in their first-time

purchase of an intangible product with the possibility of no repeat purchase. It may also be difficult to think of all the unforeseeable problems of this type of intangible product.

The main finding of this study is that the adoption of the central route of persuasion in response to negative online customer reviews had a significant positive effect on customers' ITP. Former studies on ELM with online customer reviews have generally focused on its application when reading online customer reviews. This study provides further evidence that ELM is also useful for explaining the effect of the presence of a response adopting a central route to the readers of online reviews. Since the readers are looking for a suitable hotel to stay, their involvement in the reading of these online reviews can be said to be high. Thus, in addition to previous findings that the quality of online customer reviews has a positive effect on customers' ITP (Park, Lee, & Han, 2007), this study revealed that for high-involvement customers, a response to negative online customer reviews using a central ELM route had a positive effect on their ITP.

However, this effect was only valid when no outcome was present in association with the central route. We explain this in the discussion of outcomes. The research framework used in this study also explains that the positive persuasion effect of the central ELM

route on customers' ITP was achieved through its moderating effect on the impact of hotel trust created by reading the negative online reviews. The moderate-to-high *R*-square values in the structural model support this argument. On the other hand, the study reveals that credible sources in the peripheral route do not have a significant influence in a high-involvement environment.

The ineffectiveness of outcome revealed that although its presence in responses is an important tool in handling conventional customer complaints, there was no occurrence of distributive justice when using it to deal with negative online reviews. This may be because customers do not actually receive this benefit. Furthermore, they may not want this benefit because receiving it only means that they will have a problem while staying at the hotel. Even when customers do face a problem during their stay at the hotel, there is no guarantee that they will receive the same treatment. Therefore, the offer of an outcome is only good for those customers that file a complaint and care about the response. Customers viewing online reviews are still considering whether they should buy the product. The inclusion of an outcome offered to the complaining customer was found to not have any effect on changing the trust of the prospective customer on the hotel. The result also showed that when the response used a central route of persuasion, the presence of the outcome actually had a direct adverse impact on the ITP. A possible reason is that the presence of the outcome reduces the strength of the arguments. Customers might feel that the hotel might be hiding some mistakes and that is why it is offering compensation.

Practical Implications

Industrial sources have indicated that most hotel managers (80–90%) are aware of the importance of online customer reviews of their hotels; however, only 7% of them respond to negative reviews (Freed, 2011). It is obvious that dealing with positive reviews is much easier than handling negative reviews. Managers should not simply ignore these negative reviews and pretend that they do not exist. Some

hoteliers might think that they can resolve these problems by privately asking customers to remove their negative reviews. Many travelers may have already read these reviews and privately asking customers to remove their negative views may not meet the expectation of transparency in the Internet environment. Hoteliers need a new strategy to deal with negative online reviews that can be viewed as a form of complaint by dissatisfied customers. The strategy needs to be novel because dealing with people in the online world is different from dealing with a customer privately or dealing with customer complaints in an open and transparent fashion (McCarthy, Stock, & Verma, 2010).

The findings of this study indicate that although the effect of an outcome that gives rise to distributive justice is of prime importance in conventional customer handling, it has little effect in the online environment. Instead, the use of a response adopting the central route of persuasion focusing on the quality and strength of the argument yielded the best result. On the other hand, responses relying on authoritative sources are not useful in circumstances where customers have a strong degree of involvement in shopping for a place to stay during their trip. Furthermore, the inclusion of the outcome in the central route of persuasion must be considered carefully because it might cause adverse effects by reducing the customer's trust.

From these implications, we recommend that hoteliers proactively post their responses to negative online customer reviews with strong and quality arguments (central route of ELM) to increase the trust of prospective customers in their hotel and raise the customers' intention to make a booking. Petty and Cacioppo (1986a) argued, "attitude changes that result mostly from processing issue-relevant arguments (central route) will show greater temporal persistence, greater prediction of behaviour, and greater resistance to counter persuasion than attitude changes that result mostly from peripheral cues" (p. 175). This highlights the importance of the use of the central route of persuasion, as it means that customers will remember the message longer and it will be more difficult to change.

CONCLUSION

The study explains how responses to negative online customer reviews affect customers' ITP through a moderating effect on the link between hotel trust and ITP. A response adopting the central route of ELM alone is useful; though it may not be sufficient to create positive ITP, it does have a positive effect by making ITP less negative and approaches the neutral position. This study builds a theory, generalizing it to a well-specified population: the younger generation, represented by the homogeneous sample of respondents. However, focusing on a group of young travelers in order to control the variability of other background contextual factors limits the generalizability of the study. Travelers of different age groups may have different focuses when selecting products online. Future research can address this limitation by replicating this study on other subpopulations. Since this study was carried out on Chinese respondents, some of the findings may be related to cultural characteristics. Future studies can also verify the model in other cultural contexts.

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