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Title:

Online travel reviews as persuasive communication: The effects of content type, source, and certification logos on consumer behavior.

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Online travel reviews as persuasive communication: The effects of content type, source, and certification logos on consumer behavior

Abstract

Online review sites provide increasingly important sources of information in tourism product purchases. We tested experimentally how source, content style, and peripheral credibility cues in online postings influence four consumer beliefs, and how those in turn influence attitudes and purchase intentions for an eco-resort. We compared tourists' posts to managers' posts, containing vague versus specific content, and with or without peripheral certification logos. First, we tested effects of tourists' beliefs about utility, trustworthiness, quality and corporate social responsibility on attitude toward the resort and purchase intentions. Second, we tested the role of source, content, and certification on the beliefs. The interactions are complex, but broadly tourists treat specific information posted by customers as most useful and trustworthy. Their purchase intentions are influenced principally by their overall attitude toward the resort and their beliefs in its corporate social responsibility.

Keywords: online reviews; awards; certification; resorts; information; trust; blogs; corporate social responsibility; sustainability; ecolodges; environment

Highlights:

- Using a simulated online travel accommodation context, we test the role of three aspects of communication content on consumer behavior.
- Favourable beliefs about a resort inform positive attitudes towards staying at the resort, and these in turn predict booking intention.
- Specific versus vague content in reviews was more persuasive in regard to influencing favourable beliefs and trust in the resort and this was especially so if the reviews were recognised as customer generated rather than management generated.
- The presence versus absence of accreditation logos (credibility cue) had a positive effect on the perceptions of corporate social responsibility of the firm.
- Trust emerges an important variable for industry to consider. Encouraging online reviews from customers is important.

1. Introduction

Social media have evolved rapidly into a major opportunity and challenge for many businesses, especially in the hospitality and tourism sectors. Examples include Facebook, YouTube, Twitter, third-party review sites, and private blog sites. One result of social media is that the ability to communicate about key attributes and experiences related to a destination or product is no longer confined to marketing personnel. Consumers can, and increasingly do, share experiences directly with other consumers through electronic word of mouth (Akehurst, 2009). In all industry sectors, consumer-generated media are now a critical component of corporate publicity, whether negative or positive. In tourism, third-party review sites such as Trip AdvisorTM enable travelers to comment on products and destinations they have experienced, and consumer-generated online reviews now routinely inform and influence individual travel purchase decisions (Gretzel & Yoo, 2008; Lu & Stepchenka, 2012; Xiang & Gretzel, 2010).

Consumers using social media are confronted with large volumes of often conflicting information (Sen & Lerman, 2007), and their perceptions, intentions, and decisions depend on its content and presentation (Papathanassis & Knolle, 2011; Sigala, 2011; Wathen & Burkell, 2002; Wilson & Sherrell, 1993), including valence (Casaló, Flavián, & Guinalú, 2011; Sparks & Browning, 2011), informational cues (Hansen, 2005) and source credibility (Brinol & Petty, 2009; Pornpitakpan, 2004). In tourism and other sectors, an increasing number of firms now take an active role in social media information exchange by having staff post their own comments. However, "...Today, only 7% of hotels are responding to reviews even though 71% of people say that seeing a management response is important" (Revinat, 2011). This disparity

creates additional complexities for tourists attempting to assess the value and reliability of posts (Senecal & Nantel, 2004; Park & Kim, 2008).

In our research we test the influence and significance of such factors experimentally, using a simulated customer-to-customer travel advice website that mimics sites available to the public. To examine the role of social decision factors additional to price, we test responses to comments about an eco-resort—a product now widely available in the commercial tourism sector at all market levels. Previous research has examined the role of social and environmental responsibility in tourism (Buckley, 2012a, 2012b; Buckley, 2013), but not in relation to online information exchange.

Using an attitudinal model (Ajzen, 2001; Chaiken, 1980; Chaiken & Ledgerwood, 2012; Fishbein & Ajzen, 1975; Petty & Cacioppo, 1981), we test how three characteristics of online postings influence four antecedent beliefs and how these beliefs drive attitudes and affect purchase intentions. The three characteristics, which we manipulate experimentally, are source, that is, whether a review was posted by a visiting tourist or the resort management; content style, whether vague or specific; and presence or absence of eco-certification logos as peripheral cues to credibility.

2. Theoretical background

The current research design is founded on well-tested theories (Fishbein, 1963; Fishbein & Ajzen, 1975; Ajzen, 2001; Ajzen & Fishbein, 2000; Brinol & Petty, 2009; and Eaton, Majka, & Visser, 2009). The underlying model holds that behaviors are influenced by attitudes (Ajzen 2001), attitudes by beliefs (Ajzen, 2001), and beliefs by information received through both core and peripheral channels (Bickart & Schindler, 2001; Dickinger, 2011; Kardes, Posavac, Cronley,

& Herr, 2008; Sichtmann, 2007; Wathen & Burkell, 2002; Wilson & Sherrell, 1993), modified by prior experience (Kim, Ferrin, & Rao, 2008; Wang, Beatty, & Foxx, 2004; Yoon, 2002). Persuasive communication, such as in marketing collateral, aims to influence attitudes, and hence behavior, through presentation of both core and peripheral information.

Messages are designed to persuade by affecting both beliefs and attitudes, and subsequently, behavior itself (Petty & Cacioppo, 1981). Elements of the message content, source, contextual characteristics, and channel are likely to influence persuasion (Petty & Cacioppo, 1981). For example, when potential consumers examine information from online review sites concerning a particular accommodation property, they are likely to form impressions about the review content (Sen & Lerman, 2007), including beliefs about whether the reviews are useful, informative, or accurate. Message content also provides arguments for a particular position, thereby influencing attitudes through belief formation (Petty & Cacioppo, 1981). Within the context of online travel reviews for an eco-resort, examples of such positions might include the resort's apparent commitment to corporate social responsibility (CSR) and environmental sustainability, or its commitment to quality, leading potential consumers to form beliefs about a resort's position on CSR and quality. Persuasion theory also assumes that beliefs and attitudes can be influenced by perceptions about the message source, including trustworthiness, credibility, and the recipient's beliefs about the source's intention to persuade (Petty & Cacioppo, 1981). All these variables are bound up in consumer trust in the information provided.

Trust is generally initiated by a person's first encounter with a stimulus, such as information available via a website, without direct experiential evidence of either the integrity or credibility of the trustee (Wang et al., 2004). Consumers infer trust through their perceptions of

credibility and integrity, drawn from the quality and source of the information made available as a cue. Therefore, in an online tourism environment, especially in relation to consumer visits to travel websites and the subsequent use of online reviews and blogs (i.e., cues), trust in the reviews or resort is primarily cue-based (Wang et al., 2004). Cue-based trust is likely to facilitate further encounters with the source of information and influence attitudes toward behavior such as purchase intention—that is, trust adds to the persuasiveness of the information used by consumers (Kim et al., 2008; Sichtmann, 2007; Wang et al., 2004). Moreover, trust in online reviews and other social media information is an important influence on consumer beliefs, attitudes, and behavioral intentions in a cyber environment (Bart, Shanker, Sultan & Urban, 2005; Lu & Stepchenkova, 2012).

The heuristic-systematic theory of information processing (Chaiken, 1980; Chaiken & Ledgerwood, 2012) adds a particularly useful dimension to understanding persuasion in the context of online reviews for tourism accommodation. This heuristic-systematic model proposes two distinct modes of information processing: systematic processing, which involves deep levels of engagement with the information, careful attention, analysis and reasoning; and heuristic processing, which is less demanding and more efficient, using salient and easily comprehended cues to activate judgemental shortcuts or everyday decision rules called heuristics (Chaiken, 1980; Chaiken & Ledgerwood, 2012). These correspond to what Kahneman (2012) calls “slow” and “fast” thinking respectively. Heuristic processing allows individuals to take advantage of prior systematic processing by other individuals. These two modes of information processing are not mutually exclusive and can have additive, attenuating, or interactive effects in various circumstances (Chaiken & Ledgerwood, 2012). For example, consumers often make inferences about products based on a range of second-hand information, or cues, where such information

could comprise advertising, word of mouth recommendations from friends/relatives, web pages, or expert opinion (Kardes et al., 2008). In addition, people tend to use other easily understood information as cues in the processing of information, and consistent with the heuristic information processing model, they may invoke simple if-then approaches when scanning the information available on a website.

In the context of the present study, electronic word of mouth is one form of second-hand information that consumers may use in making inferences (or decisions) about potential hotel property, but it is likely to be processed in conjunction with other cues such as the source (who wrote it) and content (level of specificity) of the information. Therefore, our research focuses on three factors: source of the review (who wrote it), review content (how specific it is), and peripheral cues in the form of accreditation or certification logos. Within an online context such as web-based travel reviews (for example, a fixed channel), these aspects of message persuasiveness, content, and source, and their effects on consumer beliefs, attitudes, and behavior, are of particular interest because they are aspects of website communications that can be influenced (see Figure 1).

Insert Figure 1 here

As previously discussed, an attitude is reflective of the collection of beliefs individuals form pertaining to a particular object, in this case a specific eco-resort in an online context. Therefore, consumer attitudes toward staying at such a resort are expected not only to predict consumer willingness to make a booking, but also to mediate the influence of beliefs formed as a result of online informational cues on purchase intention.

H₁. *Attitudes toward the resort will mediate beliefs and purchase intention.*

Consistent with theories of attitude formation and persuasion, empirical findings suggest that individuals form impressions, and thus beliefs, in part owing to the source of information, where they perceive personal, user-generated information as more informative than information derived from either editorial comment or the firm's marketing materials (Dickinger, 2011). Consumers are skeptical of any form of communication they perceive to be skewed toward the interests of the source of the information contained in that communication (Senecal & Nantel, 2004), and such skepticism is likely to be strongly associated with the issue of trust in the information as a direct result of trust in the source. Consumers often consider reviews by other consumers to be more trustworthy and credible than information provided by suppliers of products and services (Park, Lee & Han, 2007), presumably because they consider consumer-provided information to be more honest. This evidence is consistent with persuasion theory in terms of the importance of source credibility and trustworthiness, and researchers have argued that the rapid rise of social media as an information source is due to consumers' tendency to place more trust in information posted by people who are apparently unconnected to the organization (Park et al., 2007; Petty & Cacioppo, 1981; Senecal & Nantel, 2004).

While online posts shape attitudes or viewpoints about particular products, this influence may vary with the source characteristics and possibly with the way information is communicated. While information is often user-generated, it can also be firm-generated (and identified as such), but to date, a paucity of research has investigated how the source—individual users versus the firm—can influence either the perception of or the intention to purchase a tourism product in an online context. Therefore, the following hypothesis is proposed:

H₂. *Beliefs resulting from information cues will be more favorable for consumer-generated content in the reviews than for manager-generated content.*

While the source of information is an important factor in the persuasiveness of online reviews, so too is the content (Petty & Cacioppo, 1981; Petty & Brinol, 2012; Wathen & Burkell, 2002; Wilson & Sherrell, 1993). For example, reading a series of online reviews may influence the consumer's overall impressions of a product (such as an accommodation property or tourist destination) in terms of what the resort has to offer, but in addition the quality of the content about the product can have an influencing effect. In the case of an eco-resort, the consumer could reasonably expect the review content to focus on environmental aspects of the property. However, content can be either specific or vague. Persuasion theory suggests that if people are scrutinizing the content of a message, they should find strong arguments more persuasive than weak arguments (Eaton et al., 2009), and researchers have in fact found better quality information with more detailed explanation to be a more persuasive form of communication (Ajzen, Brown, & Rosenthal, 1996). Therefore, a reasonable expectation is that in online review messages, specific and relevant informational content represents a stronger and more persuasive argument than vague content, which would be analogous to a weaker argument.

H₃. *Consumer beliefs resulting from information cues will be more favorable for specific content in the reviews than for vague content.*

Other peripheral information, such as that relating to certification or awards, may also influence beliefs. As consumers see service providers' marketing information to be less credible (lacking integrity) than user-generated or editorial content, firms commonly consider obtaining some other sort of quality indicator, such as certification or third-party accreditation (Dickinger, 2011). In many industry sectors, most consumers do pay attention to eco-labels, at least sometimes, when making purchasing decisions (Thorgersen, 2000). In general, the use of an

environmental accreditation label (for example, an eco-label) amplifies any green aspects of the product. The logo itself fosters potential consumers' trust in the product, and together with the level of consumer recognition and awareness this trust is of key importance in consumer attention to such logos and their subsequent persuasive effects (Thorgersen, 2000).

Within the tourism accommodation sector specifically, there are currently numerous eco-certification programs with various different mechanisms and geographical scope (Buckley, 2002a, 2002b). While eco-labels can represent a major communication channel for informing consumers of green credentials (Rex & Baumann, 2007), many consumers lack adequate awareness of environmental accreditation schemes and eco-labels, especially in tourism (Puhakka & Siikamaki, 2012). A plausible argument is that consumers are likely to invoke heuristic information processing (Chaiken, 1980; Chaiken & Ledgerwood, 2012) when scanning the information available on a website, including eco-logos and labels. Therefore, the following hypothesis is proposed:

H₄. *The presence of credibility cues, especially certification of eco standards, should increase strength of beliefs.*

3. Method

3.1. Overview

To investigate the research questions, we employed an experimental method using simulated web-based content that included realistic photographs, review comments, and environmental logos. In consultation with a graphic artist, we devised a standard template for a resort review website that mimics the look and feel of an accommodation review website. A

fully crossed between-subjects design was employed. Most content and design elements were held constant, with only the independent variable of content varying. In sum, the design was a 2 (content) x 2 (source) x 3 (credibility cues) factorial between-subjects design containing 12 cells.

3.2. Participants

Participant contact names were obtained from a market list company, drawn from an Australian database. The sample comprised 537 community members, including 364 females (68%) and 166 males (31%) (seven participants did not disclose their gender). Participants ranged in age from 19 to 87 years ($M = 48.06$, $SD = 15.20$). Most participants (97%) had experience with booking accommodations online, most (96%) also indicated that they relied on reviews when making a hotel booking, and a majority (68%) said that they often or always used the Internet to actually book their accommodation. Of participants, 61.7% agreed that being part of a green accreditation system is important for tourism products, services, and resorts. The incentive for participation was entry into a draw to win one \$500 pre-paid Visa gift card or one of two \$100 Visa gift cards.

3.3. Materials/Design

Twelve versions of a simulated website were developed to depict an eco-friendly resort named “Forest Reserve Resort.” All aspects of the website remained constant, with the exception of the manipulated independent variables (source, logo, and content). Other standard features included the name of the website (“Latest Accommodation Advice”), the photo of the resort (see Figure 2 for an example of one condition), and inactive links to other parts of the website. Each simulated website contained six reviews on the right hand side of the page.

Insert Figure 2 here

3.3.1. Manipulated variables

Three variables were manipulated in this study: source, content, and logo. The *source* of information in each review was either a manager or a customer. Manager reviews endorsed the resort's eco-friendly practices such as waste recycling, and the customer reviews commented on the resort's eco-friendly facilities from the perspective of a previous patron. The *content* of the reviews was either specific or vague. In the specific reviews, managers or customers clearly described sustainable tourism practices and facilities of the resort, whereas in the vague reviews the sentiment was similar but the detail much less specific. Finally, for the manipulation of *credibility cues*, the website showed either no logo, or a green eco-certification logo, or both a green eco-certification logo and a gold logo for a service quality award. The logos were developed on the basis of existing styles and were pre-tested to be credible representations of certification or award logo respectively. Figure 2 shows an example of a review site that contained both logos. Each page also contained several filler reviews with unrelated content, containing phrases such as "rooms were very clean and tidy" or "average for this type of accommodation." The reviews were standard across conditions.

3.3.2. Measured variables

The measured variables of interest in this study were utility of reviews beliefs, trust beliefs, quality beliefs, beliefs about corporate social responsibility, attitude toward the resort, and purchase intention all measured on a 7 point Likert type scale (see Table 1).

Insert Table 1 here

3.4. Procedure

Following ethical clearance by the university human ethics review committee, e-mail addresses of 5,000 prospective participants were purchased from a reputable, privacy-compliant Australian market list company. All members of the sample were randomly assigned to one of the 12 conditions represented by different combinations of the three independent variables. Data were collected using the online survey software Qualtrics™. Each member of the sample was sent an e-mail inviting participation in the study by clicking a link to the questionnaire. Participants were given detailed information and asked to review a simulated web page, and to respond to a set of questions. All responses were anonymous. A final sample of 537 participants represented a response rate of approximately 11%.

4. Results

4.1. Manipulation checks

4.1.1. Content

Participants completed two items assessing the effectiveness of review content manipulation: “I think the reviews provided specific information” and “Overall, I felt most of the reviews were a bit vague.” Participants with extreme scores (for example, those in the specific condition who disagreed that most reviews were specific) were deleted. Independent samples *t*-tests were conducted to test whether the means varied in the expected direction for the specific and vague conditions on these items. Results indicated that the manipulation was successful, with participants in the specific condition indicating that the reviews were more specific ($M = 5.34$) than participants in the vague condition ($M = 5.00$, $t(531) = 3.67$, $p < .001$). Also,

participants in the vague condition responded that reviews were more vague ($M = 4.31$) than participants in the specific condition ($M = 3.83$, $t(530) = -3.65$, $p < .001$).

4.1.2. Source

Individual reviews were shown as being generated by either a customer or a manager associated with the resort. To further check this manipulation, we asked participants to indicate whether *all* review comments were made by customers (true, false, unsure). A chi-square contingency table analysis revealed a significant association between source and ratings on this item ($\chi^2(2, N = 533) = 85.69$, $p < .001$). The pattern of responses for those in the customer condition and the manager condition were opposite, in that respondents in the customer condition tended to recognize that comments were from customers, and those in the manager condition tended to recognize that comments were *not* from customers.

4.1.3. Credibility cues

Pre-testing of the certification and award logos was undertaken in a separate phase of the research. Working with a graphic artist, we developed two logos to represent eco-certification (adapted from existing logos) and an award. Following small-group ($N=8$) pre-testing we selected the certification logo design that received the highest level of agreement that it represented tourism eco-certification. Similarly, we selected the award logo design that received the strongest level of agreement for it being representative of a high standard. In this study the presence of the logo was either no logo, one eco-certification logo, or an eco-certification logo plus an award logo.

4.1.4. Realism of stimulus material

Responses for three realism checks were also examined, with higher scores indicating that participants perceived the simulated website as more realistic and were more able to imagine using the site. Overall, participants thought the website was realistic ($M = 5.23$, $SD = 1.08$) and could imagine themselves using the simulated website to search for resorts ($M = 5.40$, $SD = 1.17$). Participants also indicated that they were able to imagine using the website to evaluate the resort ($M = 5.47$, $SD = 1.11$).

Taken together, results suggest that participants generally perceived the independent variables as intended and that the realism of the simulated task was satisfactory and relatively consistent across conditions.

4.2. Analysis approach

The primary aims of this research are (1) to identify the important antecedents of behavior, that is, purchase intention, in a tourism related social media context for eco-accommodation, and (2) to determine whether experimental manipulation of the information cues, including the source of online reviews (management versus customer), the content of reviews (vague versus specific), and the presence or absence of eco-logos on a simulated tourism website, might affect consumer beliefs about a resort and thus their attitudes (see Figure 1).

Prior to examining the effects of experimental manipulation on consumer beliefs formed from online reviews, it is necessary to confirm that these beliefs about an eco-resort example actually influence customers' purchase intentions through attitudes towards the eco-resort. Therefore, in stage one of the analyses we tested the belief, attitude, intention model of persuasive communication presented in Figure 1, using regression equations and mediation

analysis. In stage two of the analyses we used three-way factorial ANOVA to test the effects of the manipulated variables on the belief components of the model.

4.2.1. Stage one analysis: Beliefs–attitude–intention model

Attitude formation theory argues that attitudes toward an object are based on a set of beliefs about that object, and in this eco-accommodation context those beliefs include perceptions of the utility of the reviews, trust, the quality of the resort, and its corporate social responsibility. Furthermore, in accordance with theory, attitudes toward staying at the resort (for example, object-relevant behavior) are expected to mediate the relationship between those beliefs, formed from information cues, and purchase intention (Hypothesis 1).

Table 2 summarizes the relationships between all the antecedent variables and purchase intention (for example, willingness to make a booking). Positive attitudes toward staying at the resort and perceived trust in the reviews have the strongest associations with purchase intention, followed by perceptions of the resort’s CSR credentials and its quality. The interrelationships between the antecedents were also moderate to strong, with those between trust, quality, and corporate social responsibility being strongest of all (see Table 2).

Insert Table 2 here

To test Hypothesis 1, we used mediation analysis (Barron & Kenny, 1986), which applies a series of regression equations to determine the nature of the underlying relationships between the antecedents (beliefs), the proposed mediator (attitudes), and the criterion (purchase intention). Equation 1 tested whether beliefs predicted purchase intention; equation 2 determined whether beliefs predicted attitudes as the mediator; and equation 3 tested whether the contribution of beliefs to purchase intention was fully mediated by attitudes toward staying at the

resort, as predicted by theories of attitude formation and persuasion. Table 3 presents a summary of the mediation analysis.

Insert Table 3 here

In equation 1, beliefs about the utility of the reviews, trust, and CSR had a significant influence on purchase intention, but beliefs about the quality of the resort made no unique contribution (see β -values in Table 3) ($F(4, 530) = 91.74, p = .000, R^2 = .41$). In equation 2, utility and trust beliefs had a significant influence on attitudes toward staying at the resort, that is, the proposed mediator, yet quality and CSR beliefs made no significant contribution to attitudes ($F(4, 532) = 137.02, p = .000, R^2 = .51$). Equation 3 shows that with the exception of CSR, the influence of beliefs on purchase intention becomes non-significant when attitudes are included as an additional predictor of purchase intention, demonstrating the mediator role of attitudes ($F(5, 529) = 138.52, p = .000, R^2 = .57$). Therefore, in accordance with Hypothesis 1, the influence of beliefs about the utility of the reviews and trust on purchase intention does appear to be mediated by attitudes toward staying at the resort and consumer perceptions of its corporate social responsibility (see Table 3). Beliefs about the resort's quality provide *no* unique contribution to purchase intention, and may be completely explained in this instance by trust, thus this variable was dropped from further analysis. Notably, CSR also had a significant direct effect on purchase intention.

Having established empirical support for the theory of attitude formation and persuasive communication in this online eco-accommodation context, we then tested the experimental effects on consumer beliefs about utility, trust, and CSR as antecedents of attitudes and purchase intention. In each case, the role of the source of the information (management vs. customer), content type (vague vs. specific), and credibility cues (no logos present vs. one logo

present vs. two logos present) was examined. This study is exploratory research examining new treatment-outcome variable relationships in which the outcome variables (e.g. beliefs about utility and trustworthiness of the reviews and CSR) are conceptually separate. Therefore in accordance with the recommendations of Huberty and Morris (1989) a series of ANOVAs rather than MANOVA was considered more appropriate for analysis of the effects of experimental manipulations in this context.

4.2.2. Stage two analyses: Results of experimental manipulation

4.2.2.1. Beliefs about utility of the reviews

We conducted a three-way ANOVA to investigate the role of source, content, and credibility cues on utility beliefs. No main effects were found. However, one significant two-way interaction for source by content was identified ($F(1, 519) = 5.66, p = .018, \eta^2 = 0.01$). Follow-up simple effects tests revealed that the utility beliefs were more positive for specific reviews versus vague reviews when the reviews were customer-generated ($F(1, 527) = 3.89, p = .049$). In contrast, when the manager generated the reviews, no significant effect of content type on utility beliefs occurred ($F(1, 527) = 1.60, p = .21$) (Figure 3). These results offer some support for Hypothesis 3 and limited evidence in support of Hypothesis 2.

Insert Figure 3 here

4.2.2.2. Trust beliefs

We also conducted a three-way ANOVA to investigate the role of source, content, and credibility cues on the level of trust beliefs. The analysis revealed a small but significant univariate main effect for content ($F(1, 525) = 6.28, p = .012, \eta^2 = 0.01$) (small effect) but no significant main effects for source or credibility cues. Specific reviews were rated higher ($M =$

5.02, $SD = 0.88$) than vague reviews ($M = 4.87$, $SD = 0.87$) for trustworthiness. However, this main effect was qualified by a significant two-way interaction for source by content ($F(1, 525) = 5.53$, $p = .019$, $\eta^2 = 0.01$). As Figure 4 shows and simple effects analysis confirmed, specific reviews have an even greater effect on trust when written by the customer than the manager ($F(1, 533) = 6.12$, $p = .014$). However, this result was not evident when reviews contained vague content ($F(1, 533) = .58$, $p > .05$). These results provide support for Hypothesis 2 and offer some evidence in support of Hypothesis 3.

Insert Figure 4 here

4.2.2.3. Beliefs about corporate social responsibility

We conducted a three-way ANOVA to investigate the role of source, content, and credibility cues on the respondents' CSR beliefs. The analysis revealed a significant and medium level univariate main effect for content ($F(1, 525) = 38.21$, $p < .001$, $\eta^2 = .07$) (medium effect) and also a significant univariate main effect for credibility cues ($F(2, 525) = 3.18$, $p = .042$, $\eta^2 = 0.01$) (small effect). The resort was believed to be more socially and environmentally responsible when the review page contained more specific versus vague reviews ($M = 5.63$ and 5.23 , respectively). The resort was rated higher for corporate social responsibility when logos (credibility cues) were present versus absent ($M_{\text{no logo}} = 5.29$, $M_{\text{one logo}} = 5.41$, $M_{\text{two logos}} = 5.49$). The main effect for content was qualified by a significant two-way interaction for source by content ($F(1, 525) = 6.55$, $p = .011$, $\eta^2 = 0.01$) (small effect). Follow-up simple effects tests revealed that the CSR beliefs were stronger for specific reviews versus vague reviews when customer-generated ($F(1, 533) = 32.67$, $p < .001$). When the manager generated the reviews, the CSR beliefs were also higher for specific reviews versus vague reviews but with a smaller effect

($F(1, 533) = 7.38, p = .007$) (see Figure 5). These results provide support for Hypothesis 4 and offer additional evidence in support of Hypotheses 2 and 3.

Insert Figure 5 here

5. Discussion and conclusions

In this study, which focuses on an eco-accommodation context, the important antecedents of customer purchase intention are beliefs about the utility of reviews, trust, and CSR beliefs, as well as positive attitudes toward staying at the resort. As expected from attitude formation theory, participants' beliefs in the utility of the reviews, together with their trust in the resort and the reviews, inform consumer attitudes toward staying at the resort, which in turn mediate the effect of such beliefs on purchase intention. Interestingly, beliefs about CSR were *not* fully mediated by attitudes and make a significant unique contribution to purchase intentions in the eco-accommodation context. Therefore, at least in an environmentally relevant tourism context, customer beliefs about a resort's corporate social responsibility do seem to matter. Consumers seem to pay at least some attention to environmentally relevant cues as well as eco-certification or similar award logos on websites, and the results of our experiment indicate that the presence of such logos seems to influence perceptions of a venue's CSR, which is apparently an important factor in consumer decision making for this type of accommodation. Heuristic information processing, that is, quick short-cut decision processes, may have been involved in the influence of the eco and award logos as these were created for the purposes of this experimental research, and therefore participants could not have prior knowledge or awareness of them. Determining the exact mechanism involved would require further investigation.

The results of our experiment are largely consistent with attitude formation and persuasion theory (Ajzen 2001; Petty & Cacioppo, 1981), and confirm some previous empirical findings (Brinol & Petty, 2009; Chaiken, 1980; Dickinger, 2011; Park et al., 2007; Wathen & Burkell, 2002). The source of the message (who wrote it) had some influence on customer perceptions and thus beliefs, with customer-generated content generally viewed more trustworthy than manager-generated content. Moreover, the type of content presented for online social media in a tourism context also had an influence on customer beliefs. For example, the evidence supported the importance of specific over vague review content for review utility and perceptions of trust and CSR, especially in regard to reviews generated by customers over managers. In general, customer-generated information that included specific content was the most persuasive, followed by manager-generated content that was also specific in nature. Vague reviews from either source were not persuasive. Specific content in online communication can be viewed as a more trustworthy and thus more persuasive basis for argument than vague content when written by customers. In addition, the presence of eco-logos and awards had an influence, so to some extent, our research question has been answered in that consumers do seem to pay attention to social and environmental content on social media websites.

The results of the present study and other research (Dickinger, 2011) make it evident that trustworthiness of content is particularly important. Similarly, trust in an online community is important when following advice and/or forming an attitude toward a product, as potential tourists will be influenced by other customer posts that they see as trustworthy (Casalo et al., 2011). While the present research did not find a main effect for source, it did show that this variable interacted with content, further demonstrating how consumer reviews increase perceptions of trust when they contain very specific information. Thus, as previous research has

also shown (Wang et al., 2004), some cue-based assessments seem to take place as a result of the source of information.

The results of the present study have significant practical implications for providers of accommodation services using online media to promote their resort and engage with their customers, and the use of social media in this way is becoming more pervasive. To be effective, promotional online content must be as specific and informative as possible and should include customer-generated information as well as firm-generated information. Award logos and credentials, such as eco-labels, or other credible third-party certification also seem to be influential in terms of customer beliefs, principally trust and CSR, and may be particularly important as informational cues, especially if customers perceive other cues to be less useful and informative. It is worth noting that trust is a very important variable for both attitude formation and purchase intention, so businesses need to be careful to ensure information about their resort is perceived as trustworthy. Given trust is enhanced when customers are seen to be writing specific material as feedback, businesses could consider ways to facilitate this. As an example, a business could encourage satisfied guests to post comments about their stay and ask them to highlight specific examples of what they liked, including any information about sustainable or socially responsible practices.

6. Future research

This study offers new insights into the effects of social media review content and source on the antecedents of consumer purchase intentions at a hypothetical eco-resort. While participants suggested that the simulated online review site was a reasonable reproduction of a real life social media site for an environmentally friendly resort, further studies involving

different types of tourism resorts, including those without an environmental focus, would be useful to determine whether different contexts influence the effects of the antecedents on consumer attitudes and purchase intention in different ways.

The use of simulated logos to indicate environmental sustainability credentials was considered necessary for experimental control purposes. However, a consumer's ability to recognize, understand, and particularly trust an eco-label may influence the attention paid to such labels and ultimately their power to affect purchase behavior (Thorgersen, 2000). In consideration of this effect, future experiments might include actual eco-certification logos, together with appropriate tests for recognition and trust. While consumers seem to consider eco-labels and other information cues when making decisions, most of the current research, including our study, relies on self-report data with the usual limitations. Neuropsychological or physiological data could more clearly determine how much attention consumers actually pay to the various informational cues such as eco-labels, photographs, and website content when making decisions. Whether consumers employ systematic or heuristic information processing when interpreting different aspects of website content or not may become more apparent through the collection of additional physiological evidence. Such evidence will likely have both theoretical and practical implications for the design and use of online media content.

Although the effects reported here were small, even small effects can be important for manipulations that are subtle, such as those used in this research (Prentice and Miller, 1992). This argument may be particularly relevant in this study, in which heuristic information processing (for example, quick decision making with the use of short cuts) is likely to have been a significant process in respondents' formation of beliefs and subsequent attitudes, especially since respondents were not exposed repeatedly to the stimulus and had limited information

available on which to make judgements. This consideration seems especially relevant given that consumers increasingly rely on electronic word of mouth (Litvin, Goldsmith, & Pan, 2008) to inform decision making in tourism and hospitality choice.

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Table 1

Summary of measures used in this study.

Construct name, source and reliability	Items and scale
Purchase intention $\alpha = .86$	It is very likely that I would book a room at this resort if it was in a location I was traveling to If planning a holiday to an eco-resort I would be quite likely to choose Forest Reserve Resort 1 = strongly disagree; 7 = strongly agree
Attitude toward the resort Adapted from Sen & Lerman (2007) $\alpha = .90$	I feel staying at this resort would be:- Very bad (1): Very good (7) Very unpleasant (1): Very pleasant (7) Very undesirable (1): Very desirable (7)
Quality beliefs $\alpha = .84$	Quality service would be a common occurrence at this resort This resort seems to be well managed Quality control standards at this resort seem to be high 1 = strongly disagree; 7 = strongly agree
Trust beliefs Adapted from Sichtmann (2007) $\alpha = .87$	I think this resort would have high integrity This resort appears to be more trustworthy than other resorts/hotels I have visited The resort represented here seems to deliver on its promises My impression of the believability of the information provided about this resort is very high My confidence in the reviews about this resort is very high 1 = strongly disagree; 7 = strongly agree
Utility of reviews beliefs $\alpha = .79$ Adapted from Sen & Lerman (2007)	If I was trying to decide whether to stay at this resort, this set of reviews would be: Very useful (1) : Not at all useful (7) (R) Not at all informative (1) : Very informative (7) Not at all accurate (1) : Very accurate (7)
Corporate social responsibility beliefs Adapted from Turker (2008) $\alpha = .86$	This resort seems to respect environmental standards beyond the legal requirements This resort seems to provide good quality information about its products to its customers Customer satisfaction is likely to be highly important to this resort This resort seems to comply with environmental legal regulations completely and promptly This resort seems to emphasize the importance of its responsibilities to society and the environment This resort really cares about sustainable practices 1 = strongly disagree; 7 = strongly agree

Table 2

Relationships among antecedent variables and purchase intention.

	Utility of reviews beliefs	Trust beliefs	Quality beliefs	CSR beliefs	Attitude toward staying at the resort
Trust beliefs	.62***				
Quality beliefs	.54***	.82***			
CSR beliefs	.53***	.82***	.78***		
Attitude toward the resort	.66***	.68***	.59***	.58***	
Purchase intention	.48***	.61***	.54***	.57***	.73***

*** $p < .001$

Table 3

Summary of beliefs–attitudes–purchase intention mediation analyses.

Equation 1	Equation 2	Equation 3
Beliefs → Purchase intention	Beliefs → Attitudes	Beliefs + Attitudes → Purchase intention
		$\beta_{\text{attitudes}} = .57, p < .001$
$\beta_{\text{utility}} = .16, p < .001$	$\beta_{\text{utility}} = .37, p < .001$	$\beta_{\text{utility}} = .04, p = .24 \text{ (ns)}$
$\beta_{\text{trust}} = .32, p < .001$	$\beta_{\text{trust}} = .49, p < .001$	$\beta_{\text{trust}} = .04, p = .49 \text{ (ns)}$
$\beta_{\text{quality}} = .04, p = .52 \text{ (ns)}$	$\beta_{\text{quality}} = .07, p = .22 \text{ (ns)}$	$\beta_{\text{quality}} = .00, p = .97 \text{ (ns)}$
$\beta_{\text{CSR}} = .22, p < .001$	$\beta_{\text{CSR}} = .04, p = .46 \text{ (ns)}$	$\beta_{\text{CSR}} = .19, p < .001$

Fig. 1. Conceptual model

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Home

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FOREST RESERVE RESORT

At Forest Reserve Resort, you can escape the city and wake up in relaxing natural surroundings. There are 12 self-contained lodges in total, each with natural passive temperature regulation or (optional) reverse cycle air conditioning and slow combustion wood fires for your comfort. All lodges have been designed to minimize summer sun while maximizing winter sun and are equipped with kitchen facilities, comfortable lounges, TV and DVD player as well as linen, feather doonas and towels. Each lodge is accessed via walkways which protect local flora and fauna and to minimize environmental impact. Kick back at Forest Reserve Resort and enjoy the native birds and animals which reside in the area.

Review 1

Mostly okay (Customer Comment)

Friendly staff. Good value. Double room on 1st floor was okay clean but not big. Full shower, plenty of hot water, good water pressure. Great environment.

Review 2

Environmentally Friendly (Manager Comment)

Our hotel is environmentally friendly and has a number of green initiatives in place. We try to do the right thing in following these initiatives.

Review 3

Great hotel (Customer Comment)

Staff are very friendly and helpful. Rooms very clean and tidy; average size for this type of accommodation. Good value hotel. Beautiful view.

Review 4

Lovely Natural Setting (Manager Comment)

Our hotel is set in a lovely natural setting with lots of trees and bushland surrounding it. We are also an environmentally friendly business and present relevant information for guests on our advertisements and brochures.

Review 5

Gets my seal of approval (Customer Comment)

Very reasonably priced for one night's stay. Reception staff welcoming, efficient check-in. Room basic but clean, shower okay. Tranquil environment.

Review 6

Green Holiday Resort (Manager Comment)

This hotel is a green holiday resort located in a lovely natural setting and supports habitat and wildlife conservation projects as well as environmental sustainability. Hotel brochures and room reading material provide information on this for guests.

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Fig. 2. An example of one simulated website page created for the present study

Fig. 3. Source by content interaction for utility beliefs

Fig. 4. Source by content interaction for trust beliefs

Fig. 5. Source by content interaction for CSR

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