The impact of word-of-mouth communication on attribute evaluation

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Abstract

Article history:
Received 1 April 2009
Received in revised form 1 July 2009
Accepted 1 September 2009

Keywords:
Word-of-mouth communication
Search attributes
Credence attributes
Services
Attribute evaluation
Media congruence hypothesis

Wright and Lynch (1995) propose that the medium that best communicates the type of attributes is the one most congruent with that type of information. This paper extends on this media congruence hypothesis by examining the impact of word-of-mouth (WOM) communication on the WOM recipient's ratings of search and credence attributes in two different service contexts. Results from two experiments suggest that negative WOM (but not positive WOM) is more effective in changing the evaluation of credence attributes than that of search attributes for unfamiliar brands. This finding implies that marketers of such unfamiliar brands need to have different approaches to deal with the impact of negative WOM on different attribute types.

1. Introduction

Even though marketers may not have control over WOM communication the way they do over other forms of marketing communication such as advertising and sampling, they still have the need to understand the impact of WOM and manage WOM well. However, the extant literature has only limited research on the impact of WOM on the recipient compared to research on the impact of marketing communication, such as advertising, on consumers (Bansal and Voyer, 2000). The current paper aims at enriching the literature in this direction.

WOM is particularly important in service marketing due to the heterogeneity of service quality, the higher associated risk, and the intangible nature of services (Bansal and Voyer, 2000; Ekeland et al., 1995; Jolson and Bushman, 1978). But the effectiveness of such interpersonal influence may still depend on the nature of the specific attributes [e.g., the degree of information asymmetry] that the consumers are evaluating (Wagenheim and Bayón, 2004). This paper focuses on the distinction between search and credence attributes. A service may have one or both of the above types of attributes. For example, the price of a restaurant meal is likely to be a search attribute and the long-term health benefit of the meal is likely to be a credence attribute. In this paper, the authors investigate the differential impacts that WOM may have on consumer's evaluation of these attributes. Results from two experiments suggest that negative WOM (but not positive WOM) is more effective in changing ratings on credence attributes than on search attributes.

These findings bring conceptual and managerial implications. Conceptually, the current research extends the media congruence hypothesis by studying the impacts of WOM on the evaluation of different types of service attributes. The results suggest that WOM (at least negative WOM) is more effective in communicating information about credence attributes because WOM is more congruent to credence belief communication. In terms of managerial implications, marketers of unfamiliar brands must have an understanding of how consumers may implicitly categorize different attributes into search and credence attributes. This understanding will allow marketers to identify attributes whose pre-purchase evaluations are more likely affected by negative WOM. These marketers will then be able to better manage and mitigate the possible impact of negative WOM on purchase decision.

2. Conceptual background and hypothesis development

2.1. WOM

WOM is an informal mode of communication between non-commercial parties concerning the evaluation of products and services (Arndt, 1967). As WOM is a low cost and reliable way of transmitting information about products and services, WOM plays an important role in information diffusion in consumer markets and shaping consumers' attitudes (e.g., Brown and Reingen, 1987; Mizerski, 1982; Mourali et al., 2005). Consumers search for information from knowledgeable others, such as friends and relatives, to make more informed decisions (Berger, 1988; Jolson and Bushman, 1978). The information from relevant others is taken as evidence of reality (i.e., informational influence) (Deutsch and Gerard, 1955), supporting and/or adding to what the consumers already believe about some salient aspects of the products and services.
2.2. Attribute types

In the economics of information (EOI) literature, goods and services have been categorized as search, experience, and credence (Darbi and Karni, 1973; Nelson, 1970; Nelson, 1974). However, this classification may not always be appropriate, as many products and services consist of one or a combination of search, experience, and credence attributes (Ekeland et al., 1995; Sheffet, 1983). Therefore, a multi-attribute description of products and services seems more appropriate and realistic. Translated from the EOI literature, search attributes are attributes that consumers can accurately determine prior to product purchase; experience attributes are attributes that can only be evaluated after purchase or during consumption; and credence attributes are attributes that the consumers are unable to evaluate confidently even after purchase or consumption (Blankson and Kalafatis, 1999; Ford et al., 1990; Srinivasan and Till, 2002). For example, Babakus et al. (2004) classify various attributes for banking services into search, experience, and credence attributes. Search attributes include the interest rates on deposits and the banking hours. Experience attributes include the helpfulness of tellers and the timeliness of the provision of services. Credence attributes include the confidentiality of the customers' banking information and the integrity of the bank.

The amount of information available to the consumers varies for the different types of attributes (Darbi and Karni, 1973; Nelson, 1974), with the highest amount of pre-purchase and post-purchase information available for search attributes and the lowest for credence attributes. Thus, the focus of this current research is on search and credence attributes in order to maximize the effect size of the expected differences.

Consumers are able to acquire information on the performance of search attributes easily and confidently from secondhand sources, such as advertising, prior to purchase (Hsieh et al., 2005; Wright and Lynch, 1995). As search attributes are relatively unambiguous and difficult for marketers to get away with making incorrect claims (Nelson, 1974), consumers are the least skeptical of such marketers' claims (Ford et al., 1990). In contrast, claims about performance on credence attributes cannot be verified even after purchase or immediate consumption (Ekeland et al., 1995; Nelson, 1974), because consumers do not have the technical expertise or resources to do so (Sheffet, 1983). As the information asymmetry between buyers and marketers for credence attributes may create strong incentives for the sellers to cheat (Emons, 1997), consumers are highly skeptical of marketers' claims about credence attributes. Therefore, consumers are likely to seek alternative information sources that do not have any prior motive (Friestad and Wright, 1994). Consumers may have to rely on WOM from a trusted source as one of the few ways to help them evaluate credence attributes. In the absence of diagnostic information on credence attributes, the consumers may use signals and/or heuristics to a greater extent to evaluate such attributes (e.g., “It must be good/bad because others whom I trust say so”) (Babakus et al., 2004; Srinivasan and Till, 2002; Sheffet, 1983).

2.3. Hypotheses

Wright and Lynch (1995) propose a media congruence hypothesis under which the medium that best communicates the type of attributes is most congruent with that type of information. They find evidence that direct experience is more congruent with experience attribute belief communication, and advertising is more congruent with search attribute belief communication. Extending on their research, this paper examines the impact of WOM on the evaluation of search and credence attributes in two experiments. Following the logic of the media congruence hypothesis, this research proposes that WOM is more congruent with credence attribute belief communication as compared to search attribute belief communication.

Consumers may rely less on WOM or direct experience for judging search attributes, as the credibility of the source matters less to enhance persuasion for search attributes (Jain and Posavac, 2001). Consumers are able to acquire information on the performance on search attributes prior to purchase from other sources (e.g., directly from marketers and retailers) easily at a low cost comparable to that of WOM. Moreover, WOM on search attributes is likely to be less reliable and accurate than that from the marketers and retailers, as this WOM is dependent on the memory of the WOM giver.

As defined, consumers are normally unable to assess the performance of credence attributes despite their direct experience with the product or service (Washburn et al., 2004). Consumers may then resort to signals and/or heuristics to evaluate credence attributes. When the characteristics of the focal object cannot be adequately assessed from direct observation and contact, the consumers may use the reactions of others towards the focal object as evidence about the unobservable characteristics of the object (Burnkrant and Cousineau, 1975). Moreover, WOM is generally perceived as trustworthy and credible by the consumers, because WOM is based on the experiences of other consumers who are independent of the marketers (Bansal and Voyer, 2000; Mourali et al., 2005; Smith et al., 2005). Therefore, consumers may rely more on the position advocated in the WOM as an important informational cue (rather than direct experience or advertising) to form their evaluation on credence attribute of an unfamiliar brand. With a familiar brand, consumers may still rely on the brand name as a signal of quality. For an unfamiliar brand, WOM is predicted to have a higher impact on the evaluation of credence attributes than on the evaluation of search attributes.

H1. The impact of WOM on attribute evaluation will be higher for credence attributes than for search attributes.

WOM normally contains positive and/or negative evaluations on products discussed (Smith et al., 2005). Furthermore, WOM is an important, common, and realistic source of negative information of brands as, engaging in WOM is one of the main ways consumers use to express dissatisfaction (Smith and Vogt, 1995). In the extant literature, negative information is commonly believed to have a greater influence on a decision maker than positive information. Such a negativity effect (i.e., the greater weighing of negative as compared with equally extreme positive information in the formation of overall evaluations) appears to be a well-proven phenomenon in consumer psychology (Ahluwalia, 2002). Negative information has been found to be more credible and diagnostic than positive information (Herr et al., 1991). Negative WOM has also been found to be a stronger influence on customers’ brand evaluations than positive WOM (e.g., Mizerski, 1982). Therefore, consistent with the current literature,

H2. The impact of negative WOM on attribute evaluation will be greater than that of positive WOM.

As suggested before, the incentive for marketers to misrepresent information is higher for credence attributes than for search attributes. As the ambiguity of attribute evaluation and the risk from a lack of information and knowledge increase, WOM becomes a more important source of information to the consumers (Bansal and Voyer, 2000; Hsieh et al., 2005). Increased perceived risk may increase the saliency of the diagnosticity and credibility of the information that can help consumers to avoid some negative consequences that marketers’ opportunistic behaviors can bring. Since negative WOM is more diagnostic and credible than positive WOM, the increase in its impact from search to credence attributes ought to be greater than the increase brought about by its positive counterpart. Therefore,

H3. The expected increase in the impact of WOM from search to credence attributes will be greater for negative WOM than for positive WOM.
3. The present research

3.1. Overview and participants

The type of attributes (search vs. credence) and valence of WOM (positive vs. negative) were manipulated between-subjects in two experimental studies to test the hypotheses. The subjects considered the two chosen contexts (i.e., travel and consumer banking) to be relevant to them as consumers. The subject pool included undergraduate students from a major university in Singapore. Subjects (n = 107) in Experiment 1 were given course credits for their participation and subjects (n = 96) in Experiment 2 were paid 6 SGD (1 SGD = 0.68 USD) each.

3.2. Experiment 1

3.2.1. Procedure and measurements

This experiment put the subjects in the context of considering Belize as a travel destination. A pretest with 15 subjects that were different from those participating in the experiment indicated that only 13.3% of them had heard of Belize as a country. Moreover, general impression on Belize as a travel destination is fairly neutral. The use of unknown and neutrally rated brand names can help to maximize the impact of interpersonal influence such as WOM and avoid any possible biases and prior impressions the subjects might have (Zemborain and Johar, 2007). The pretest subjects gave a mean rating of 4.3 on a seven-point scale from very negative (1) to very positive (7). They were also asked to list all the important attributes for them to choose a travel destination.

A second pretest (n = 15) was conducted to identify search and credence attributes. A list of attributes was first generated through discussion based on the responses from the first pretest. The pretest subjects in the second round were asked to categorize these attributes into search, experience, and credence attributes, and rated their importance. Subjects in the pretest were also given the definition of search, experience, and credence attributes and asked to categorize each of the attributes into the three types. The purpose was to identify two focal attributes each for search and credence conditions. Attributes that were categorized in one type for at least 60% of the time were chosen for the experiment. The four resulting attributes were Cost of the Accommodation (search), Cost of the Trip to and from Destination (search), Likelihood of Terrorist Attack (credence), and Likelihood of Civil Unrest (credence). On a seven-point scale from totally unimportant (1) to totally important (7), the mean importance scores for the four chosen attributes range from 5.7 to 6.0.

Subjects in the experiment were randomly assigned to one of the four conditions in a laboratory setting. They were asked to imagine that they were considering Belize as their travel destination. They were first given a general description of Belize as follows:

“The capital of Belize is Belmopan. Most visitors travel to Belize by plane but visitors can also get there by road or sea. Visitors to Belize are required to apply for Visa and are permitted to stay in Belize for a period not exceeding 30 days. Even though the currency used in Belize is the Belize Dollar (BZ$), most hotels, resorts, restaurants and tour operators do accept U.S. currency, traveler's checks and major credit cards.

Then they were asked to rate the focal attributes (i.e., attributes from the attribute type to which they had been assigned) and other attributes (i.e., attributes that were focal for subjects in other conditions) on four seven-point scales (Cost of the Accommodation: very low/very high; Cost of the Trip to and from Destination: very low/very high; Likelihood of Terrorist Attack: very low/very high; and Likelihood of Terrorist Attack: very low/very high). All the attributes were reverse-scored for higher scores to indicate more positive evaluations. These ratings formed the baseline against which the post-WOM ratings were compared. The rating task was followed by a filler task.

After the filler task, the subjects read a WOM scenario, which included the manipulation of WOM valence and attribute type. Focal attributes and some peripheral information about the travel destination were included in the scenario. An example of the Negative WOM/Search Attribute condition is as follows (the parts in italics were not included in the scenario presented to the subjects):

“You want to know more about Belize? Oh sure, I went to Belize last year. Well, there are various attractions such as ancient temples, forests and mountain ranges. I also got a chance to swim with the stingrays and sharks at the Shark Ray Alley. However, the cost of accommodation (search attribute 1) was really high (negative). The cost of traveling to and from Belize (search attribute 2) was also really high (negative). By the way, the majority of the locals do speak English, so communication wasn't an issue. I also did some shopping over there and got some interesting local products. Perhaps I should show them to you someday.”

The peripheral information made the WOM scenario more realistic and was available in all conditions. This peripheral information was presented as neutral sounding as possible. The two focal attributes were always presented in the middle of the WOM message and were positively or negatively phrased depending on the condition. All the statements used for describing the different focal attributes are presented in Table A1 in Appendix A. Subjects rated the focal attributes again after reading the WOM scenario. Subjects also filled out various items (e.g., involvement and the importance of the attributes) to check for their likely effects on the main dependent variable. For the manipulation check, the subjects categorized the various attributes into search, experience, and credence attributes. Finally, the subjects wrote down their thoughts about the purpose of the study. The experimenter then thanked and dismissed them.

3.2.2. Results and discussion

Analysis on the change scores for each of the attributes (i.e., the difference between the post-WOM and pre-WOM ratings) shows that the WOM valence manipulation is effective. For subjects who read negative WOM, one-sample t-tests show that the means of their untransformed attribute rating change scores are significantly different from zero in the negative direction for each of the four attributes (all ps < 0.001). Another series of one-sample t-tests confirm that the mean of the change scores from those reading positive WOM are significantly different from zero in the positive direction (all ps < 0.001). In contrast, the manipulation of attribute type is only marginally effective for the two credence attributes (Table 1). This issue will be discussed later in this section. Also, no subject was able to guess the overall objectives or the hypotheses of the experiment.

In order to compare the impact of negative WOM and positive WOM, analyses were done on the absolute value of the change score

<table>
<thead>
<tr>
<th>Type of attributes</th>
<th>Credence (%)</th>
<th>Experience (%)</th>
<th>Search (%)</th>
<th>Not sure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of the accommodation (n = 53)</td>
<td>1.9</td>
<td>1.9</td>
<td>96.2</td>
<td>–</td>
</tr>
<tr>
<td>Cost of the trip to and from the destination (n = 53)</td>
<td>3.8</td>
<td>13.2</td>
<td>83.0</td>
<td>–</td>
</tr>
<tr>
<td>Likelihood of terrorist attack (n = 54)</td>
<td>57.4</td>
<td>7.4</td>
<td>27.8</td>
<td>7.4</td>
</tr>
<tr>
<td>Likelihood of civil attacks (n = 54)</td>
<td>46.3</td>
<td>9.3</td>
<td>40.7</td>
<td>3.7</td>
</tr>
</tbody>
</table>

* These percentages include only subjects who rated the specific focal attribute.
of the attribute ratings. Other analyses including covariates such as involvement and attribute importance did not yield significantly different results. These additional analyses are not presented in this paper. The main analysis was done using the Linear Mixed Models (LMM) module in SPSS and the parameters of the model was estimated with the restricted maximum likelihood estimation algorithm. The individual attributes were nested within the corresponding attribute type (i.e., search and credence). This analysis strategy was adopted instead of averaging the change scores of the different attributes rated by the same subject, because preliminary correlational analyses indicate that averaging the change scores of the focal attributes in the same condition is not appropriate. The readers should note that LMM module in SPSS applies corrections for random effects and multiple levels that result in fractional values for the degrees of freedom for the denominator (Tabachnick and Fidell 2007). However, the presentation of the denominator degrees of freedom in this paper is rounded to the nearest integer.

The attribute type main effect is significant (F(1,103) = 8.44, p < 0.01). The marginal mean of Search Attribute is lower than that of Credence Attribute (Table 2), thus supporting Hypothesis 1. The significant interaction effect (F(1,103) = 8.34, p < 0.01) and individual cell means indicate that the relationship under Negative WOM is significantly steeper than that of the relationship under Positive WOM. Additional post-hoc analyses show that the cell mean of Search Attribute is significantly lower than that of Credence Attribute for Negative WOM. The cell means do not differ significantly under Positive WOM. Hence, these results support Hypothesis 3.

The WOM valence main effect is significant (F(1,103) = 4.69, p < 0.05), but the marginal mean for Positive WOM (M = 1.9) is greater than that of Negative WOM (M = 1.5). Thus, Hypothesis 2 is not supported. The unexpected result for Hypothesis 2 may have been due to the context used in Experiment 1. Recent research has found that some factors attenuate the negativity effect (Ahuwalia, 2002). For example, Lacziak et al. (2001) found that negative WOM decreases brand evaluation only when the WOM recipients attribute the negativity of the message to the brand and not to the WOM giver. In Experiment 1, the subjects might have attributed the negative WOM to the WOM giver rather than Belize as a travel destination. The subjects were likely to have made this attribution in this context, because the performance of some of the attributes would depend on the choices the WOM giver made. For example, the attribute of Cost of the Accommodation depends on the service provider that the WOM giver chooses. Therefore, the context for Experiment 2 was chosen to be less dependent on the choices made by the consumers.

A large proportion of the subjects still considered the credence attributes as search attributes (Table 1). An additional analysis without these subjects shows results that are consistent with the conclusions drawn from the results of the main analysis. However, the subjects might have perceived the search and credence attributes to be different on some other dimensions. Thus, a more stringent criterion was adopted for the choice of attributes to be used in Experiment 2. Industry experts and academics have also categorized these chosen attributes as search and credence attributes.

Table 2: Statistics for change in attribute rating in Experiment 1.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Marginal mean of absolute value of change score</th>
<th>Cell mean of absolute value of change score for NWOM</th>
<th>Cell mean of absolute value of change score for PWOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>1.4 (53, 0.13)a</td>
<td>1.0 (26, 0.18)b</td>
<td>1.9 (27, 0.18)b</td>
</tr>
<tr>
<td>Credence</td>
<td>2.0 (54, 0.13)</td>
<td>2.0 (27, 0.18)b</td>
<td>1.9 (27, 0.19)</td>
</tr>
</tbody>
</table>

a Cell size, standard error of the mean.

b The individual cell means with the same superscripts are significantly different from each other, after adjusting for multiple comparisons using Bonferroni procedure with the overall error rate at 0.05.

3.3. Experiment 2

3.3.1. Procedure and measurements

The context of consumer banking services was used in Experiment 2. The scenario in Experiment 2 focused on a choice situation, whereby the subjects were to consider a single type of financial service from a single service provider. In this scenario, consumers are more likely to attribute any negative information about the service quality to the service provider rather than the WOM giver. In several exploratory interviews with students from the subject pool, all of the subjects identified the savings account as the most relevant financial service to them. All of the pretest subjects also indicated that they had at least one savings account (n = 25).

Subjects in the main experiment were asked to imagine that they were considering opening a new savings account with the Royal Bank of Canada (RBC). A pretest with 25 subjects that were different from those participating in the experiment indicates that only 4% of them had heard of the Royal Bank of Canada (RBC). General impression on RBC in the pretest is fairly neutral with a mean rating of 5.0 on a seven-point scale from very negative (1) to very positive (7). From the existing literature, a list of search and credence attributes was generated. Industry experts and academics have categorized these attributes into search and credence attributes (e.g., Babakus et al., 2004). However, consumers may not perceive and understand the differences between the search and credence attributes in the way researchers do (Krishnan and Hartline, 2001). Hence, pretest subjects were still asked to categorize the list of attributes into search, experience, and credence attributes, and rated their importance. Compared to Experiment 1, a more stringent criterion in this experiment was adopted in order to minimize the possibility of poor operationalization of the attributes. As such, attributes that the pretest subjects categorized in one type for at least 70% of the time were chosen for the experiment. The four resulting attributes were Interest Rate (search), Convenience of the Branches (search), Competency of the Management (credence), and Integrity of the Bank (credence). On a seven-point scale from totally unimportant (1) to totally important (7), the mean importance scores for the four chosen attributes range from 5.4 to 6.1.

The experimental procedure was similar to that of the previous experiment. Each of the focal attributes was measured on a seven-point scale prior to and after the WOM scenario (Interest Rate: very low/very high; Convenience of the Branches: very inconvenient/very convenient; Competency of the Management: very incompetent/very competent; and Integrity of the Bank: very low/very high). Higher scores indicate more positive evaluations for all attributes. The following shows the general description of RBC before WOM was presented:

RBC Bank is a full service bank that provides a full range of financial services, aimed at fulfilling the total banking and financial needs of both businesses and individuals. RBC Bank is present in various countries in the Asia-Pacific region, through a network of subsidiaries and associated companies. As of 28th Dec 2006, RBC Bank and its associated companies have total assets in excess of billions of Singapore dollars.

An example of the WOM scenario is as follows (the parts in italics were not included in the scenario presented to the subjects):

“You want to know more about RBC Bank? Oh sure, I do have a savings account with RBC Bank. Well, let me see... The opening hours are from about nine in the morning to four in the afternoon on a normal weekday. The bank branches are opened on Saturday mornings as well. The interior of the bank branches is fairly modern looking too. Oh yes! I feel that the interest rate (search attribute 1) for the savings account is really low (negative). I also feel that the bank branches are really inconvenient for me to get to (search attribute 2 and negative). What else is there for me to tell you about RBC Bank? Mmm... When I first opened the savings account, I received a RBC ATM card. But I guess that is what you will typically get from other banks, for starting any savings account. Besides savings account, RBC Bank provides other kind of financial services too.”
All the statements used for describing the different focal attributes in Experiment 2 are presented in Table A1 in Appendix A.

3.3.2. Results and discussion

On the whole, majority of the subjects categorized the given attributes into their intended types (Table 3). The manipulation of attribute types was fairly successful compared to Experiment 1. The effectiveness of the WOM valence manipulation was also evaluated. For subjects who read negative WOM, one-sample t-tests show that the means of their untransformed attribute rating change scores are significantly different from zero in the negative direction for each of the four attributes (all $p<0.001$). Another series of one-sample t-tests confirmed that the means of the change scores from those reading positive WOM are significantly different from zero in the positive direction (all $p<0.05$). Also, no subject was able to guess the overall objectives or the hypotheses of the experiment.

As with Experiment 1, the analyses were done on the absolute change score of the attribute ratings. The attribute type main effect is significant ($F(1,92) = 8.45, p<0.01$) with the marginal mean of Credence Attribute greater than that of Search Attribute (Table 4), supporting Hypothesis 1. The attribute type by valence interaction effect is significant ($F(1,92) = 10.64, p<0.01$). Additional post-hoc analyses were done to examine the simple effects under the different levels of WOM valence. Under Negative WOM, the cell means of Credence Attribute and Search Attribute are significantly different (Table 4). Under Positive WOM, the cell means are not significantly different. Therefore, the results support Hypothesis 3. The WOM valence main effect is significant ($F(1,92) = 103.29, p<0.001$). Negative WOM ($M=2.8$) has a greater impact on attribute evaluation than Positive WOM ($M=0.8$), supporting Hypothesis 2. As per Experiment 1, an additional analysis without those subjects who did not classify the focal attributes to the intended categories shows results that are consistent with the conclusions drawn from the results of the main analysis.

4. General discussion, limitations, and future directions

For both experiments, the results support Hypothesis 1. The cell means for negative WOM show a similar pattern. However, the cell means do not differ significantly under positive WOM in both experiments. In summary, negative WOM has a significantly lower impact on the evaluation of search attributes than on the evaluation of credence attributes.

A possible alternative explanation to the results is that the strength of the manipulation differs across the different attributes (i.e., different wording in the WOM message for each focal attribute to manipulate the evaluation). This explanation is unlikely for the pattern of results in the two experiments. If the significant differences across different attributes under negative WOM are due to the strength of the manipulation, differences across different attributes under positive WOM should be significant too. In both experiments, the differences across different attributes under positive WOM were not significant. The statements for positive and negative WOM for each of the focal attributes are the same except for the valence (refer to Appendix A, Table A1). Another possible alternative explanation is that the importance of the different attributes differs across the different attributes. This explanation is unlikely for the pattern of the significant differences in the main dependent variables of interest under negative WOM in both experiments, as the importance of the different attributes do not differ significantly under negative WOM for either experiment.

The conceptual contributions of this research include expanding on the idea behind the media congruence hypothesis by Wright and Lynch (1995). Wright and Lynch (1995) examine the effectiveness of the different media to communicate product information in terms of the recognition of the claims made, belief accessibility, and belief confidence. However, this research is able to demonstrate that WOM is more effective in communicating information on credence attributes than on search attributes in terms of greater impacts on attribute rating. This expected relationship seems to be only limited to negative WOM. Extending on the media congruence hypothesis, this research examines the effectiveness of a medium on communicating information about credence attributes and search attributes. Even though the average consumer may not be able to verify the performance on credence attributes due to the cost and time required, negative WOM does seem to provide a signal for poor performance on these dimensions.

In terms of managerial implications, the results from the two studies suggest that marketers of unfamiliar brand have to be aware that certain aspects of their services are more susceptible to negative WOM compared to positive WOM. If the attributes are of equal importance to the customers, marketers need to prioritize providing better customer service and after-sales support to address potential issues with credence attributes. Moreover, the marketers can adopt different approaches to mitigate the impact of negative WOM. As the consumers do not rely heavily on WOM for information on search attributes, accurate and positive information on these dimensions through advertising and other forms of marketing communication can easily mitigate any negative WOM regarding these attributes. Therefore, marketers should make relevant positive information on search attributes readily available to consumers (Blankson and Kalafatis, 1999). Credence attributes pose a major challenge for the marketers, as consumers are unlikely to accept any marketing communication (including product trial) from the marketers at face value. With the information asymmetry between buyer and seller regarding credence attributes, the marketers will need to build a strong brand in terms of trust to assure their customers about the performance on these attributes (Blankson and Kalafatis, 1999).

5. Limitations and directions for future research

The lack of a significant effect for positive WOM may be due to an artifact of the manipulation method. The vignettes in these two experiments are in a printed format and the WOM description of each focal attribute is only a single sentence that is relatively uninformative. Moreover, both experiments do not provide the subjects with any opportunities for clarification and immediate feedback. Thus, the subjects may not find the WOM in the experiments helpful in gauging the performance of the credence attributes as compared to relatively unambiguous search attributes. Hence, the use of vividly presented information can lead to a significant simple effect for positive WOM and...
an even stronger significant simple effect for negative WOM (as compared to the significant effects for negative WOM obtained in these experiments). Future studies can look into presenting WOM to the consumers in a more vivid manner.

Finally, besides the WOM scenario, limited information is given to the participants of the experiments. Even the brand names of the services to be evaluated were unknown to the majority of the subjects. Future studies should consider the presence of other sources of information. For example, Srinivasan and Till (2002) find that brand name increases consumers’ perception of performance evaluations of experience and credence attributes but not that of search attributes. But trial of the brands can reduce (but not eliminate) the advantage branded products have in enhancing consumers’ perception of experience and credence attributes. Therefore, future research can look into how WOM may interact with brand name in affecting consumers’ perception about the different attributes. Moreover, whether WOM is congruent with the other sources of information (e.g., direct experience, advertisements) can have a considerable impact on the effectiveness of WOM (e.g., Smith and Vogt, 1995).

Acknowledgments

The authors thank Peter Darke, Ringo Ho, Shun Yin Lam, and Sharon Ng for their valuable feedback on the paper. In addition, the authors thank Marvin Boey, Shu Pei Ong, and Li-Yean Phuah for their invaluable help in data collection for Experiment 1.

Appendix A

Table A1

<table>
<thead>
<tr>
<th>Attribute type</th>
<th>Valence type</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experiment 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of the accommodation (Search)</td>
<td>Negative</td>
<td>The cost of accommodation was really high.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>The cost of accommodation was really low.</td>
</tr>
<tr>
<td>Cost of the trip to and from Destination (Search)</td>
<td>Negative</td>
<td>The cost of traveling to and from Belize was also really high.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>The cost of traveling to and from Belize was also really low.</td>
</tr>
<tr>
<td>Likelihood of terrorist attack (Credence)</td>
<td>Negative</td>
<td>I did not feel safe in Belize, as there was really high possibility of a terrorist attack.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>I felt safe in Belize, as there was really low possibility of a terrorist attack.</td>
</tr>
<tr>
<td>Likelihood of civil unrest (Credence)</td>
<td>Negative</td>
<td>The possibility of civil unrest was also really high.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>The possibility of civil unrest was also really low.</td>
</tr>
<tr>
<td><strong>Experiment 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate (Search)</td>
<td>Negative</td>
<td>I feel that the interest rate for the savings account is really low.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>I feel that the interest rate for the savings account is really high.</td>
</tr>
<tr>
<td>Convenience of the branches (Search)</td>
<td>Negative</td>
<td>I also feel that the bank branches are really inconvenient for me to get to.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>I also feel that the bank branches are really convenient for me to get to.</td>
</tr>
<tr>
<td>Competency of the management (Credence)</td>
<td>Negative</td>
<td>I feel that the management is really incompetent.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>I feel that the management is really competent.</td>
</tr>
<tr>
<td>Integrity of the bank (Credence)</td>
<td>Negative</td>
<td>I also feel that the integrity of the bank is really low.</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>I also feel that the integrity of the bank is really high.</td>
</tr>
</tbody>
</table>

References


