網路口碑行銷平台對於認知可信度、品牌態度及購買意願的影響：關於中國青年消費者的研究

趙萌萌

摘要

本研究採實驗法，在負面網路行銷訊息的環境下，探究四種網路平台——社交媒體（以臉書爲例）、個人部落格、微博（以新浪微博爲例）及論壇——對於消費者的認知可信度、品牌態度及購買意願的影響。190位被試者被隨機分配到四種網路平台之一。結果顯示，實驗處理對於全部因變量都有顯著的主效應。另一個有趣的發現是，在因素分析中，消費者對於網站可信度的認知和對於消息來源可信度的認知被合併成同一因素。這個新的因素（後文被命名爲「認知的網路行銷可信度」）在四種網路平台上的表現有顯著差異：消費者認爲被張貼在個人部落格上的網路行銷訊息最可信，論壇上的訊息可信度最低，微博和社交媒體居於二者中間。另外，雖然在負面訊息的環境下，消費者的品牌態度和購買意願的整體水平低下，但是相較於其他三種網路平台，被分配到論壇組的被試者的品牌態度和購買意願的分值較高。本文亦對本研究的理論和現實意義進行了探討。

The Effect of Electronic Word-of-Mouth Platforms on Perceived Credibility, Brand Attitude and Purchase Intention: A Study of Chinese Young Consumers

Mengmeng Zhao

Abstract

An experiment was conducted in the context of negative word-of-mouth to examine differences among social networking site (Facebook), personal blog, micro-blog (Weibo), and discussion forum in consumers' perceived credibility, brand attitude and purchase intention. Each of the 190 respondents was randomly assigned to one of the four eWOM platforms. Results showed significant main effect of the treatment on all dependent variables. Another intriguing finding was that consumers' perceptions of site credibility and source credibility were combined as one factor confirmed by factor analysis. This new factor, named as perceived eWOM credibility, is significantly differed among the four sites, such that the credibility of the eWOM message posted on personal blog was rated highest and discussion forum lowest, with micro-blog and social networking site rated between these. Interestingly and explicably, although the overall levels of brand attitude and purchase intention were low after reading the negative review, respondents assigned in discussion forum group showed slightly better attitude toward the brand and greater purchase intention than those exposed to other three eWOM platforms. Implications for both research and practice were discussed.

The Effect of Electronic Word-of-Mouth Platforms on Perceived Credibility, Brand Attitude and Purchase Intention: A Study of Chinese Young Consumers

With the rapid development of information technology, the Internet enables consumers to share their opinions, experiences and knowledge on products or services with a vast, geographically dispersed group of people (Kiecker & Cowles, 2002). As new media technologies continue to evolve, traditional word-of-mouth (WOM) started to take place within online environments, enabling real-time content through interactivity, response and conversation (Kliatchko, 2008). Online word-of-mouth, also known as electronic WOM (eWOM), was defined as a particular type of WOM which occurs in the online setting (Dwyer, 2007) and can be observed in many different online channels, such as emails, discussion forums, blogs, social networking sites, etc. Like traditional WOM, eWOM is "communicating about products" through media, but the channels of which are associated with online platforms (Pride & Ferrell, 2011, p.522). Since eWOM is such a new phenomenon, researchers need to find out whether the development of communication channels will lead to the emergence of new characteristics in the eWOM communication process. This research specifically investigated consumers' response after being exposed to online opinions related to brand and product.

eWOM has become a popular topic in computer-mediated communication, particularly in the context of consumer-to-consumer interactions (Sun, Youn, Wu, & Kuntaraporn, 2006). Goldsmith and Horowitz (2006) stated that consumers exchange product information online in a similar way as they do offline. In an effort to reduce the perceived risk and uncertainty or to secure a lower price, consumers tend to seek online information regarding a product or service before making a decision (Erin & Lawrence, 2009; Goldsmith & Horowitz, 2006; Prendergast, Ko, & Yuen, 2010; Sweeney, Soutar, & Mazzarol, 2008). In a recent study, Gu, Park, and Konana (2012) indicated that eWOM has become a major information source for consumer purchase intention, and its power on consumers' attitude and behavior became

even more influential. Thus, it is essential for both researchers and marketers to understand the impact of eWOM in shaping consumers' perceptions and behavioral intentions.

However, the anonymity of most online users raises people's suspicions on the credibility of eWOM (Pollach, 2006). The quality of online review and trustworthiness and authoritativeness of the sources may vary (Mack, Blose, & Pan, 2008). Several past studies have examined whether audiences perceive the information differently depending on media types such as traditional media or online media. Some research reported that the perceived credibility of online user-generated reviews is lower than that of traditional WOM due to the lack of source cues on the Internet (Smith, Menon, & Sivakumar, 2005; Dellarocas, 2006), whereas another study found that web bloggers judge blogs as more credible information sources than traditional sources (Johnson & Kaye, 2004). Given that audiences perceive differently on different media platforms, would this phenomenon extend to online context? Flanagin and Metzger (2007) stated that the site features and user attributes have impact on perceived credibility on web-based information. Thus, this study assumed that consumers would perceive differently on eWOM messages posted on online sources of different features and user attributes. Since credibility is intimately tied to persuasion (Rieh & Danielson, 2007), online information platforms with different level of perceived credibility may also influence consumers' brand evaluation and purchase intention.

So far, however, there has been little discussion about this topic in a Chinese context. As one of the first studies to explore the effect of different online information sources on Chinese consumers, this paper seeks to address the following question: Whether Chinese consumers would perceive differently on eWOM messages posted on different online platforms? If so, how would this difference impact their brand attitude and purchase intention? By examining this question, researcher may approach some new characteristics of communication process in the digital era.

Literature Review

Electronic Word-of-Mouth (eWOM)

As discussed above, traditional WOM is extended to the online context along with the development of Internet technology. The channels of the communication process have been changed from traditional mass media to new online platforms. Consumers, as either the sender or the receiver in the communication process, no longer receive product-related messages from or send these messages to one's immediate contacts. eWOM connects diverse individual consumers and extends the WOM network to the entire Internet world, and it can also be considered as the extension of traditional interpersonal communication into the new generation of cyberspace (Cheung, Lee, & Rabjohn, 2008). eWOM is defined as "any positive or negative statements made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Hennig-Thurau, Kevin, Gianfranco, & Dwayne, 2004). It has become a common topic in a great deal of marketing and consumer research, specifically how eWOM influences judgment and consumption.

Many previous studies have contributed to the understanding of eWOM behaviors by examining consumers' motivation to articulate themselves on consumer opinion platforms (Hennig-Thurau et al., 2004), responses and motivation to pass along email (Phelps, Regina, Lynne, David, & Niranjan, 2004), the impact of the network structure on innovation adoption (Vilpponen, Winter, & Sundqvist, 2006), and key influencers of online information adoption (Cheung et al., 2008). With the growing availability and popularity of social media, eWOM research was influenced by the trend. Scholars started to examine consumers' communication behaviors on websites by investigating new member acquisition and WOM referrals in SNSs (Trusov, Bucklin, & Pauwels, 2009), and the different impact of consumer reviews and editor reviews on the popularity of restaurants on review sites (Zhang, Ye, Law, & Li, 2010). Among factors predicting purchase intention for online forums (Prendergast et al., 2010), consumers' perceived credibility on the online opinion plays a crucial role. In the next part

of literature review, studies related to perceived credibility and its two important dimensions, perceived media credibility and perceived source credibility were examined.

Perceived Credibility

Credibility is not a property of the information or source, but is a property that is judged by the receiver of the information (Freeman & Spyridakis, 2004; Sundar, 1998). Compared with traditional sources, the perceived credibility of online information may be less reliable due to the structural and editorial features of the web environment, partly because of a lack of gatekeepers to monitor content (Flanagin & Metzger, 2007), and the possibility of unchecked information creates the potential inaccuracy and misleading. This brought difficulty to consumers to assess the online information. Due to the diversity of information on the web, researchers are urged to pay particular attention to different websites and information types. Users' perceived credibility have been shown to vary depending on their motivations and orientations toward a certain website and information content. And site attributes, user attributes and behaviors online also deserve further exploration (Eysenbach & Kohler, 2002; Metzger, Flanagin, Eyal, Lemus, & McCann, 2003).

Perceived credibility is a multidimensional concept that could be explored at different levels. Specifically, this study focused on two important dimensions of credibility research in communication scholarship (Hu & Sundar, 2010): media (site) credibility and source credibility. In the online context, people's evaluation of online messages may result from the combined effect of perceived media (site) credibility and perceived source credibility.

Perceived media credibility ("Perceived site credibility" in the online context). Media credibility assesses the degree of trust people have in certain media (Hu & Sundar, 2010). Numerous studies have attempted to examine whether audiences perceived the information differently depending upon media types. However, literature has emerged that offers contradictory findings on this topic. Some stated that online sources are more credible than traditional media, while others claimed the opposite (Jo, 2005). With the

popularity of the Internet and social media, scholars started to examine and to compare the perceived credibility among different online sources. The word "perceived media credibility" in the online context can be seen as "perceived site credibility".

Grounded in attribution theory, an experiment conducted by Lee and Youn (2009) examined how product reviews generated by various online platforms (company website, independent websites and personal blogs) influenced attitude towards the product, intention to buy and intention to recommend it to friends. They found that participants exposed to the reviews on the personal blogs were less likely to recommend the product to friends than those exposed to the review on the other platforms. Hu and Sundar's (2010) online experiment revealed that respondents were more likely to take action based on the information sourced from a website than from a blog or a personal home page. However, Johnson and Kaye (2004) reported that Internet users tend to seek news and information on blogs rather than on any other news source because blogs were perceived as more credible than online newspaper sites, online cable TV sites and online broadcast news sites. Similarly, Kim (2006) found that Internet users perceived blogs as more credible than either portal sites or mainstream news sites. Lenhart and Fox (2006) explained why blogs are judged as more credible. They found that over 50% bloggers admitted that they wrote mostly for themselves, not for an audience, and the main motivation of writing blogs is to express themselves and to share personal experience. This finding also supported Flanagin and Metzger's (2007) argument that perceived credibility on web-based information may also be influenced by user attributes.

However, all of these studies failed to include the social networking sites (SNS), the most popular eWOM platforms nowadays, into their study. As an essential part of social media, SNS (such as Facebook and MySpace) plays an important role in people's online conversations and interactions. However, far too little attention has been paid to SNS in WOM studies. There are few studies at this time addressing the effects of different social media on receivers' adoption of online product information.

The sender of the online opinion, also known as the source of eWOM, is of equal importance as the platform. In the context that consumers search online reviews of a product,

or encounter a comment of a product or a brand when randomly surfing the Internet, the source are mostly strangers. Therefore, perceived source credibility may act as another important factor on predicting consumers' overall evaluation on a piece of eWOM messages.

Perceived source credibility. Previous studies on source attribution defined the source of online information as "what or who the receiver believes it to be", and receivers regard these source attributions as clues to evaluate online information (Newhagen & Nass, 1989; Sundar & Nass, 2000). The focus on the examination of source or sender may be traced back to Lazarsfeld's two-step flow theory, which assumes that the media influence people through opinion leaders (Lazarsfeld, Berelson, & Gaudet, 1948). This raised researchers' attention towards those who send the message, instead of merely looking at the media channel. Why sources like opinion leaders are so influential? Previous research suggested that perceived source credibility may be a very important factor.

Studies on source credibility focused on a source's perceived ability (expertise) or motivation (trustworthiness) to provide accurate and truthful information (Nan, 2006; Tormala & Petty, 2004). Jo (2005) stated that expertise refers to the extent to which the message sender is perceived to have the ability of making correct judgment; trustworthiness is the extent in which the receiver considers the argument articulated by the sender is valid. Belch and Belch (2006) named the communication process relating to credibility as internalization, "which occurs when the receiver adopts the opinion of the credible communicator since he or she believes information from this source is accurate" (p. 167).

It assumes that perceived source credibility significantly affect the extent to which people believe in the message. But is it still applicable in the context of eWOM? Does it work as the same as in the cases of traditional WOM communication? Previous studies showed that the relationship between the message sender and the receiver is one of the most distinctive differences between WOM and eWOM (Chatterjee, 2001). A receiver having a closer relationship with the sender (e.g. family members or friends) tends to believe in the information; and a receiver having a weak relationship with the sender (e.g. strangers or

fellow consumers) tends to be skeptical about the information (Duhan, Johnson, Wilcox, & Harrel, 1997). The ties between the senders and the receivers in the context of eWOM are usually considered weak because anyone can post comment online (Chatterjee, 2001). In that case, is perceived source credibility still useful for e-consumers to refer to when assessing online information? As stated in the previous paragraphs, perceived site credibility is partly influenced by user attributes. People may treat "online platform" and "source" as a whole when processing online opinions. Therefore, the effect of perceived source credibility and perceived site credibility might be combined in predicting consumers' responses toward eWOM messages posted on different social media platforms.

Social Media Platforms

This study examines four popular eWOM platforms in the Chinese context: SNS, blog, micro-blog and discussion forum. Kaplan and Haenlein (2010) created a classification scheme to categorize social media by two dimensions. One is social presence/media richness, and the other is self-presentation/self-disclosure. They argued that these are two key elements of social media. According to this classification, blog is classified into "low social presence/ media richness and high self-presentation/self disclosure", SNS is "medium social presence/ media richness and high self-presentation/self disclosure", and micro-blog is at somewhere between the two. However, discussion forum is not classified by these two dimensions. From this categorization, four online platforms are believed to have different site features. As previously mentioned, the site features have impact on perceived credibility on web-based information (Flanagin & Metzger, 2007).

Four websites were chosen to represent each of the online platforms. The selection criterion is "typical and popular" among Chinese users. Facebook (SNS), Sina Weibo (micro-blog), WordPress (blog) and iMobile Forum (discussion forum focusing on mobile phones) were selected.

Since user attributes also influence audiences' perceived credibility on online information (Flanagin & Metzger, 2007), it is worth mentioning a special group of online

users, "Internet water army", which refers to online paid posters in China. These paid posters are called as the "water army" because they are well organized to "flood" the Internet with purposeful comments and articles (Chen, Wu, Srinivasan, & Zhang, 2011). Many Chinese companies nowadays are interested in hiring paid posters as the effective strategies to attract public attention towards their products, and thus the idea of online paid posters is similar to eWOM. Among the four online platforms to be examined in this study, Weibo and iMobile forum are prone to be "invaded" by water army, because these two websites are easy and quick to sign up, whereas Facebook accounts must be registered with users' real names, and personal blog is not the appropriate platform for large-scale communication. The author argued that the water army may create a significant negative effect on the online communities, since the information from paid posters is usually not trustworthy.

This also explains why the author is more interested in observing negative eWOM messages. It is believed that negative comments are more authentic because people are more likely to benefit from posting positive comments for a company.

Brand Attitude

Brand attitude is defined as the overall evaluation the consumer has towards a certain brand, either with the continuous preference or loathing tendency (Ajzen & Fishbein, 1980; Mitchell & Olson, 1981). Brand attitude has a detrimental effect to a brand because it is highly related with brand image and consumers' behavioral intentions. MacKenzie and Spreng (1992) then argued that the evaluation should be a comprehensive result, which is based on the perception of brand image or prominent benefit (Wilkie, 1986). On the other hand, brand attitude is also conceptualized as just one of the various associations used in the formation of the brand image (Faircloth, Capella, & Alford, 2001). A positive attitude towards a brand may increase the chance of the adoption of the brand (Kotler & Keller, 2008), and negative brand attitude may lead to consumers' willingness to break brand relationship (Yao & Huang, 2010).

Purchase Intention

It is important to understand consumers' purchase intention because consumers' actual buying behavior can usually be predicted by their intention. Purchase intention is reportedly correlated to actual behaviors (Ajzen & Fishbein, 1980).

So far, however, the existing research failed to differentiate "purchase intention for product" with the "purchase intention for brand". Most previous studies regard purchase intention as willingness to buy the product. This paper suggests that these two concepts should be considered separately, especially in the context of negative comments. Although negative comments on a certain product may have detrimental impact on consumers' buying intentions, it does not mean that consumers are not willing to try some other products of the same brand.

Based on the preceding review, this study centers on the level of perceived credibility that consumers give to eWOM messages posted on social networking sites, personal blogs, micro-blogs, and discussion forums and examines whether consumers' brand attitude and purchase intention (for product and for brand) vary by the website genre. This discussion translates to the following research framework, as well as hypotheses and research questions:

Figure 1

Research Framework
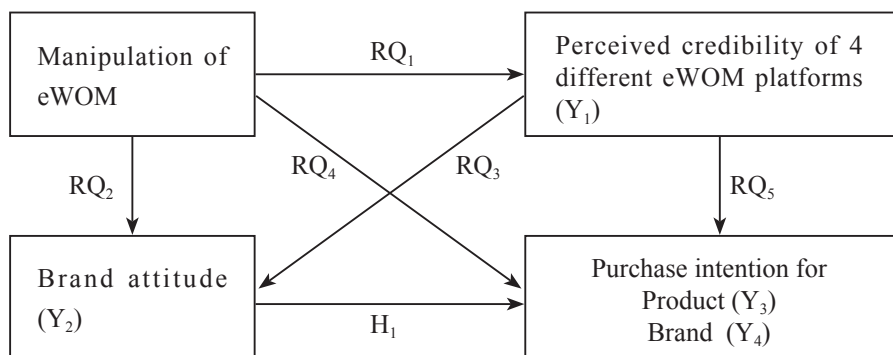
RQ$_{1a}$: Whether consumers would perceive differently on the credibility of eWOM platforms after being exposed to manipulation of eWOM?

RQ$_{1b}$: If there would be significant differences, among four types of eWOM platforms in terms of perceived credibility, which platform would be the most credible for the eWOM message postings for Chinese consumers, and which would be of the lowest credibility?

RQ$_{2}$: Whether consumers would evaluate the brand differently after being exposed to the eWOM messages posted on different platforms? If so, how different it would be?

RQ$_{3a}$: Whether consumers would have different purchase intention for product after being exposed to the eWOM message posted on different platforms? If so, how different it would be?

RQ$_{3b}$: Whether participants would have different purchase intention for brand after being exposed to the eWOM message posted on different platforms? If so, how different it would be?

RQ$_{4}$: Under the negative eWOM context, how can demographics and perceived credibility of eWOM predict brand attitude?

RQ$_{5a}$: Under the negative eWOM context, how can demographics and perceived credibility of eWOM predict purchase intention for product?

RQ$_{5b}$: Under the negative eWOM context, how can demographics and perceived credibility of eWOM predict purchase intention for brand?

H$_{1a}$: Brand attitude would positively relate to purchase intention for product.

H$_{1b}$: Brand attitude would positively relate to purchase intention for brand.

Method

Participants

A total of 190 Chinese undergraduate and postgraduate students were recruited from a large university in Hong Kong. Each participant was compensated for his or her time with extra credits. College students were considered appropriate participants because they are

familiar and frequent users of the Internet, and also because they actively engage in online product review (Bailey, 2005; Goldsmith & Horowicz). The main reasons to choose mainland students living in Hong Kong include that: (1) Students living in Mainland China have very limited access to Facebook (It has been blocked since 2009); (2) Hong Kong students rarely use Weibo. However, most Mainland students living in Hong Kong use both Facebook and Weibo. The unfamiliarity of any of the eWOM platforms included in this study may cause a confounding factor.

Most participants were between the ages of 19 and 24, with the average age being 22. A total of 54% ($N = 103$) of the participants were female.

Product Selection

A major selecting criterion was that the product should be controversial enough to trigger the need for verification among participants and to raise questions about credibility. Smart phone was selected as the product category because it scored highest regarding relevance among university students in previous focus group discussions. First, as participants mentioned in focus group interviews, smart phone has become an essential communication tool for college students, and it is easy for them to surf the web and to connect with their families and friends in Mainland China by using the apps. Second, according to participants, buying a mobile phone needs an extensive information search, such as searching and reading consumer reviews online, because the price of smart phone is slightly expensive compared with their income, so there are significant potential risks.

A virtue brand, "Meepo", was chosen for the smart phone, to avoid possible confounding factor of prior attitudes towards a certain brand. Lee and Youn (2009) have used the similar method for product selection in their study on eWOM platforms. They intended to use "apartment" as the product because it is relevant enough to their research participants, i.e., college students. In order to rule out possible confounding effects of prior attitudes towards the apartment on participants' responses, they made up a fictitious brand name, "Maple Grove Towers", for the apartment that appeared in the experiment (p. 482).

Procedure

The real websites were used to ensure a high ecological validity of the experiment. Four versions of screenshots showing either Facebook, Wordpress, Weibo, or iMobile forum as the manipulation of four eWOM platforms. To rule out the confounding factor of the comment length, each screenshot contained the identical 140-word paragraph of negative comment on the smart phone. Each participant was randomly assigned to one of the four treatment conditions.

The paper-based experiment was conducted in the class. The color-printed webpage screenshots were distributed as the first step. Participants were asked to imagine they were looking for information about a smart phone and come across a consumer comment extracted from a website. After reading the textual instruction and the message in the screenshot, the five-page questionnaires were distributed as the second step. Participants answered a list of questions measuring perceived site credibility and perceived source credibility, brand attitude, willingness to buy the product, and willingness to buy products of the brand. All questions were measured on 5-point Likert-type scales. The last page included two questions checking the manipulation of message valence and eWOM platform, followed by participants' demographic information. The questionnaire took approximately 10 minutes to complete.

Measurements of Dependent Variables

Perceived site credibility. Adapted from Sundar's (1998, 1999, 2000) measurement instrument on media credibility studies, seven items were developed to examine participants' perceived credibility on the website. Participants were asked to indicate on 5-point Likert-type scales ranging from 1=strongly disagree to 5= strongly agree on the following statements: (1) I think this site is impartial; (2) I think this site is trustworthy; (3) I think this site is credible; (4) I think this site is accurate; (5) I think this site is true; and (6) I think this site is reliable; and (7) 1=totally believe to 5 =totally believe on the question: "To what extent do you believe in this site?"

Perceived source credibility. Six items examining participants' perceived source credibility were developed from Wu and Shaffer's measurement in 1987. Some items were added particularly for Chinese social context. Participants responded on a 5-point Likert-type scales ranging from 1=strongly disagree to 5=strongly agree on the following statements: (1) I think this message sender said what he/she really feels; (2) I think this message sender is using the real identity; (3) I think this message sender is independent of selling intents; (4) I think this message sender has no intention to deceive people; (5) I think this message sender is responsible for what he/she said; and (6) I think this message sender cares about the impact of his/her postings on readers.

Brand attitude. Six items were developed to examine participants' brand attitude after exposure to the treatment. The scales were adapted from a recent study conducted by Sabbane, Lowrey, and Chebat(2009). Brand attitude was measured on six 5-point semantic differential scales anchored by: (1) very bad/very good; (2) unacceptable/acceptable; (3) dissatisfied/satisfied; (4) unpleasant/pleasant; (5) unconfident/confident; and (6) valueless/valuable.

Purchase intention. Most previous studies examined purchase intention by only one or two items that asked participants "how likely" they would buy (Bai, Law, & Wen, 2008), or let them indicate "willing/not willing to buy" (Park & Kim, 2008). Variable represented by less than three items may cause the reliability problem. This study used following items to examine consumers' purchase intention for product: (1) Are you interested in this product; (2) Will you consider buying this product when needed; and (3) How likely will you buy this product when needed. The similar questions were developed for examining purchase intention for brand: (1) Are you interested in this brand; (2) Will you consider buying the product from this brand when needed; and (3) How likely will you buy the product from this brand when needed. All questions were measured on 5-point Likert-scale.

Results

Among the 190 participants, 100% of the participants passed the manipulation check of message valence, and 98% of the participants correctly answered the eWOM platform manipulation-check question: "Which site did you read just now?"

Data Reduction

Factor analysis was first conducted to examine whether the data in the present study could be reduced to meaningful factors. Kaiser-Meyer-Olkin was used to check for sampling adequacy. This yielded a value of .91, which indicated that the sample for the present study was adequate. Varimax rotation was used because it maximizes high loadings and minimizes low loadings for each factor. In other words, it maintains the independence among the factors but increases their interpretability. The accepted criterion for significant factor loadings was .60 in the present study. Factor loadings revealed that all 25 items for the four variables were subjected to factor analysis, which accounted for 69.89% of the total variance (See Table 1). As expected, perceived site credibility and perceived source credibility were grouped into one category, which indicated that the two concepts are highly interrelated. H_1 is supported. This finding is consistent with some previous research that found credibility assessments of sources and media are fundamentally interlinked and influence one another (Slater & Rouner, 1996). That is, to some extent, source and site credibility assessments are interlinked, perhaps in part because credible sites are seen as more likely to introduce credible sources and credible sources are seen as more likely to communicate via credible site. Thus, we combined these two factors as a new factor named "perceived eWOM credibility". Rieh and Danielson (2007) also stated that information technology is beginning to have a significant effect on credibility, and blurring lines between traditional concepts such as source, message, medium, and receiver.

Table 1

Factor analysis results

	Factor loadings			
Factors	1	2	3	4
Perceived eWOM credibility				
1.I think this message sender is independent of selling intents.	.87			
2.I think this message sender is using the real identity.	.83			
3.I think this site is impartial.	.82			
4.I think this site is trustworthy.	.81	.		
5.I think this site is credible.	.80			
6.I think this message sender is responsible for what he/she said.	.80			
7.I think this site is accurate.	.79			
8.I think this message sender has no intention to deceive people.	.77			
9.I think this message sender said what he/she really feels.	.77			
10.I think this site is true.	.73			
11.To what extent do you believe in (one of the four sites)?	.73			
12.I think this site is reliable.	.72			
13.I think this message sender cares about the impact of his/her postings on readers.	.70			
Eigenvalue	9.15			
Variance Explained (in %)	36.60			
Cronbach' s alpha	.95			
Brand Attitude				
1.Please evaluate this brand in terms of "degree of confidence".		.81		
2.Please evaluate this brand in terms of "degree of acceptability".		.79		
3.Please evaluate this brand in terms of "degree of satisfaction"		.78		
4.Please evaluate this brand in terms of "degree of pleasantness".		.75		
5.Please evaluate the brand from "1-very bad" to "5-very good".		.74		
6.Please evaluate the brand in terms of "brand value".		.71		
Eigenvalue		5.06		
Variance Explained (in %)		20.24		
Cronbach' s alpha		.89		
Purchase intention for brand				
1.Are you interested in this brand?			88	
2.Will you consider buying the product from this brand when needed?			.87	
3.How likely will you buy the product from this brand when needed?			.83	
Eigenvalue			1.76	
Variance Explained (in %)			7.05	
Cronbach' s alpha			.93	
Purchase intention for product				
1.Are you interested in this product?				.89
2.Will you consider buying this product when needed?				.88
3.How likely will you buy this product when needed?				.86
Eigenvalue				1.50
Variance Explained (in %)				6.00
Cronbach' s alpha				.92

Factor 1, presenting perceived eWOM credibility, accounted for 36.60% of the variance. All the items in Factor 1 yielded loadings greater than .70. Therefore, all thirteen items were retained. Factor 2, which accounted for 20.24% of the total variance, reflected participants' brand attitude. Six items in the measurement of brand attitude yielded loadings higher than .70. Therefore, all six items were used to represent brand attitude. Factor 3 accounted for 7.05% of the total variance. This factor consisted of three items, covering the purchase intention on the brand. Factor 4, presenting purchase intention on the product, accounted for 6% of the total variance. All of the items had loadings ranging from .70 to .89. It is worth noting that the separation of "purchase intention for brand" and "purchase intention for product" provided evidence that consumers treated the two factors differently. The factor loadings, the reliability coefficients, and the variances each factor accounted for are presented in Table 1.

Hypothesis Testing

To answer RQ_{1a}, RQ_{1b}, RQ_2, RQ_{3a}, and RQ_{3b}, a multivariate analysis of variance (MANOVA) was conducted to examine if there were any differences among groups of different eWOM platforms with respect to perceived eWOM credibility, brand attitude, purchase intention for product, and purchase intention for brand.

With the use of Wilks's lambda criterion, the MANOVA analyses revealed a significant main effect of eWOM platforms (F (12, 484) = 18.358, Wilks' lamba = .37, $p < .001$) on the four dependent variables. As shown in Table 2, the finding revealed a significant main effect of the eWOM platforms on perceived eWOM credibility (F(3, 186) = 95.50, p < .001), brand attitude (F(3, 186) = 3.70, $p < .05$), purchase intention for product (F (3, 186) = 4.71, $p < .01$), and purchase intention for brand (F(3, 186) = 4.24, $p < .01$). Therefore, it is concluded that in the context of negative WOM, consumers' perceived eWOM credibility, brand attitude, purchase intention for product and purchase intention for brand significantly dependent on which eWOM platform they had been exposed to.

Table 2

Effects of eWOM platforms on dependent variables

Source	Mean square	df	F	Sig.
eWOM platforms	2571.80	3	95.50	.000***
Perceived eWOM credibility	30.45	3	3.70	.013*
Brand attitude	13.96	3	4.71	.003**
Purchase intention for product	17.50	3	4.24	.006**
Purchase intention for brand				

Descriptive analysis showed in Table 3 provided the means and standard deviations for the four different dependent variables that have been split by the independent variable, providing further answers to RQ_{1b} and all other research questions, which asked about the rank of eWOM message credibility among the four sites perceived by participants, as well as how different it would be in terms of brand attitude, purchase intention for product and for brand.

Table 3

Means and standard deviation of dependent variables for Facebook, Blog, Weibo and discussion forum groups

	Facebook		Blog		Weibo		Forum	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Perceived eWOM credibility	47.76	2.83	54.11	3.72	46.86	2.82	36.15	8.96
Brand attitude	15.80	3.66	15.83	2.83	16.61	2.54	17.52	2.29
Purchase intention for product	6.17	1.66	6.36	1.71	6.20	1.73	7.33	1.78
Purchase intention for brand	6.91	2.23	6.83	1.81	7.25	2.29	8.17	1.72

As shown in Table 3, credibility of online opinion posted on blog was rated highest and discussion forum lowest, with micro-blog and SNS rated between the two. In so forth, in the context of negative eWOM, consumers exposed to blog showed slightly lower brand attitude and purchase intention than those exposed to discussion forum.

Specifically, RQ_2 asked whether participants would evaluate the brand differently after

being exposed to eWOM messages posted on different eWOM platforms. The effect of the eWOM platforms on brand attitude approached significance ($F(3, 186) = 3.70$, $p < .05$). Interestingly, as shown in Table 3, participants exposed to discussion forum tend to evaluate the brand slightly more favorably than those exposed to Facebook, blog and micro-blog. It may be because people are less likely to believe in the negative information posted on the discussion forum.

Similar findings were observed in purchase intention (RQ_{3a} and RQ_{3b}). The effect of the eWOM platforms on purchase intention for product and purchase intention for brand both approached significance ($F(3, 186) = 4.71$, $p < .01$; and $F(3, 186) = 4.24$, $p < .01$, respectively). Participants assigned in the discussion forum scenario, again, are more willing to buy the smart phone showed in the picture and the products (other than this phone) of this brand than those in other three scenarios.

Following a significant multivariate effect, post hoc comparisons of group differences were performed to determine which group means differ significantly from others. The post hoc Tukey tests revealed that the mean for perceived eWOM credibility were statistically significantly different between blog and Facebook ($p < .001$), Weibo ($p < .001$), and discussion forum ($p < .001$), and between discussion forum and Weibo ($p < .001$), and Facebook ($p < .001$), but not between Weibo and Facebook ($p = .830$).

Mean brand attitude were statistically significantly different between blog and discussion forum ($p < .05$), and between Facebook and discussion forum ($p < .05$) but not between Weibo and blog ($p = .54$), discussion forum ($p = .40$), and Facebook ($p = .52$), and not between blog and Facebook ($p = 1.00$).

Mean purchase intention for product was statistically significantly different between discussion forum and blog ($p < .05$), Weibo ($p < .01$), and Facebook ($p < .01$), but not between blog and Weibo ($p = .96$), and Facebook ($p = .95$), and not between Weibo and Facebook ($p = 1.00$).

Mean purchase intention for brand was statistically significantly different between discussion forum and blog ($p < .01$), and Facebook ($p < .05$), and not between Weibo and

blog (p = .73), discussion forum (p = .12), and Facebook (p = .84), and not between blog and Facebook (p = .997).

To further examine the relationship among perceived credibility, brand attitude and purchase intention, correlation analysis and regression analysis were conducted.

As previously stated, positive brand attitude may increase consumers' willingness to buy, and negative brand attitude may lead to consumers' willingness to break brand relationship (Faircloth, Capella, & Alford, 2001; Kotler & Keller, 2008; Yao & Huang, 2010). Thus, to test H1, which hypothesized the positive relationship between brand attitude and purchase intention, correlation between brand attitude and purchase intention for product and purchase intention for brand were tested respectively. As shown in Table 4, consumers' brand attitude was significantly and positively correlated to purchase intention for product (r = .47, p < .01) and purchase intention for brand (r = .51, p < .01). The result suggested that, the higher the degrees of brand attitude consumers have, the more likely they are willing to buy the product as well as the brand. Thus, H_{1a} and H_{1b} were supported.

Table 4

Summary of the correlation results between brand attitude and purchase intention for product and purchase intention for brand

	Purchase intention for product	Purchase intention for brand
Brand attitude	.47**	.51**

*Notes. *p < .05, **p <.01, ***p < .001

RQ4, RQ5a and RQ5b asked about the impact of perceived eWOM credibility on its three dependent variables: brand attitude, purchase intention for product and purchase intention for brand under the context of negative eWOM. To better explain the questions, three regression analyses were conducted, and demographical factors were also included. Table 5 summarized the result of three regressions.

Table 5

Regressions of demographics and perceived eWOM credibility on brand attitude, purchase intention for product, and purchase intention for brand

Predictors	Brand attitude	Purchase intention for brand	Purchase intention for product
Demographics			
Gender (male=1)	-.02	-.06	-.03
Age	.09	.06	.19*
Education	-.16*	-.01	-.08
Income	-.10	-.12	-.09
Perceived eWOM credibility	-.20**	-.22**	-.16*
R2	.08	.07	.05
Adjusted R2	.06	.05	.03

Notes. *p < .05, **p <.01, ***p < .001

As results from regression analyses using demographics and perceived eWOM credibility as independent variables, and brand attitude, purchase intention for brand and purchase intention for product as dependent variables respectively, perceived eWOM credibility was a significant predictor of all three dependent variables.

Specifically, in the first regression analysis, perceived eWOM credibility (β = -.20, p < .01) was found a significant predictor of brand attitude. For purchase intention for brand and for product, perceived eWOM credibility also acts as a significant predictor (β = -.22, p < .01, and β = -.16, p < .05, respectively). The result implies that after being exposed to negative eWOM, the more credible participants think the message is, the lower degree of brand attitude they would have, and the less they are willing to buy the product and the brand.

Demographically, education significantly predicted brand attitude (β = -.16, p < .05), and age was a significant predictor of purchase intention for product (β = .19, p < .05), which indicate that the higher educational level of consumers, the worse evaluation they would give to the brand; and older people seem to be more willing to try the product, even though they had read the negative comments.

資訊社會研究
Journal of Cyber Culture and
Information Society

Discussions

This study examined whether the same eWOM message posted on different eWOM platforms have different impacts on consumers in the context of negative WOM, how different it would be, as well as the predicting role of perceived eWOM credibility on brand attitude and purchase intention. The findings contribute to existing eWOM research in both theoretical and practical ways.

Firstly, the result showed significant main effect of four popular Chinese online platforms on consumers' perceived credibility, brand attitude and behavioral intentions. Meanwhile, it also revealed the highly correlation of perceived site credibility and perceived source credibility in the online context, which has not been discussed in previous studies, enriching the existing literature of eWOM. Secondly, among the online opinion posted on four platforms, the message posted on personal blog was rated as the highest credible and discussion board lowest, and SNS and micro-blog rated between these, whereas there is no significant difference between the last two. This could be explained by the negative impact of Chinese "water army", a group of people hired by companies or organizations, purposely posting product review or opinions, not only positive comments, but also negative comments for their competitors. They are more likely to "flood" online forums because most Chinese online forums allow anonymous posts (i.e., a user can post comments without needing to register for user ID) (Chen et al., 2011). Due to its widespread existence and easy-to-discover characteristics, most Chinese online users are already aware of this. Therefore, people may have the assumption that messages posted on a discussion forum are not trustworthy. Among four selected sites, personal blog is perceived as the most credible for eWOM posting. This finding is consistent with the previous studies (Johnson & Kaye, 2004; Kim, 2006). It may be because blog is the most "personal" platform compared with other three platforms in this study, mostly managed and written by an individual, plus that for most bloggers, the motivation to keep a blog is just to share their experience and to express themselves (Lenhart & Fox, 2006). Although bloggers are becoming the new target of "water army",

the situation is not as severe as forums. This perception difference among websites suggests that researchers and practitioners should not see eWOM effect as a single concept. Different attributes of each online platform should be studied and used differently. Third, perceived eWOM credibility is found as a significant predictor of brand attitude and purchase intention for both brand and product. Respondents reported significantly greater brand attitude and purchase intention toward information attributed to websites of lower level of perceived credibility than to those of higher perceived credibility. Because the less likely people believe in the negative eWOM, the more likely they will assume that the brand or the product is not that bad. Although the brand attitude and purchase intention are comparatively low no matter which platform consumers were exposed to after reading negative comments (the mean score of purchase intention for product is 6.5 and the mean score of purchase intention for brand is 7.3, lower than half of the full score which is 15), consumers in discussion forum group obviously expressed higher level of brand attitude and purchase intention compared with people in other three groups. It triggered the author's interest in further investigating the effect of perceived eWOM credibility on consumers' attitude and behavior in current digital marketing era.

Practically, the different effects of online platforms on consumers' brand attitude and purchase intention will enrich practitioners' understanding of how online product information processing would impact consumers' perception and behavior. By suggesting that personal blog might be the most credible source, this study provided references for online marketers who want to "influence the influencers" in their product/brand promotion or business development.

Limitations and Implications

As one of the earliest studies exploring the impact of different online platforms on Chinese consumers' brand attitude and purchase intention, this study also has some weaknesses. Even though the items of perceived site credibility and perceived source

credibility were loaded on one factor, the author should think deeper to conceptualize the combination of these two. Secondly, this study focused on the effect of eWOM platforms on consumers' perception, in order to avoid confounding factors such as product involvement and brand familiarity, the author made up a brand name, which might introduce another confounding factor: unfamiliarity. Additionally, the sample was limited to student consumers. Therefore, the result cannot be generalized to the whole population of Chinese consumers.

In future research, researchers could replicate this study in the context of positive eWOM to see if different online platforms have the same impact on perceived eWOM credibility, brand attitude and purchase intention, or compare the effect of both conditions. Future studies can also test whether perceived credibility mediates the relationship between the condition and dependent variables. The author hopes that this study will trigger researchers' interest to get a better understanding of eWOM communications among Chinese consumers.

References

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior.* NY: Prentice-Hall, Englewood Cliffs.

Bai, B., Law, R., & Wen, L. (2008). The impact of website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors. *International Journal of Hospitality Management, 27*(3), 391-402.

Bailey, A. A. (2005). Consumer awareness and use of product review websites. *Journal of Interactive Advertising, 6*(1), 68-81.

Belch, G. E., & Belch, M. A. (2006). *Advertising and promotion: An integrated marketing communications perspective* (7th Ed.). NY: McGraw-Hill/Irwin.

Chatterjee, P. (2001). Online review: Do consumers use them? *Advances in Consumer Research, 28*(1), 129-133.

Chen, C., Wu, K., Srinivasan, K., & Zhang, X. D. (2011). Battling the Internet water army: Detection of hidden paid posters. Retrieved March 13, 2012, from http://arxiv.org/pdf/1111.4297v1.pdf

Cheung, C. M. K., Lee, M. K. O., & Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet Research, 18*(3), 229-247.

Dellarocas, C. (2006). Reputation mechanisms. In T. Hendershott (Ed.), *Handbook on information systems and economics* (pp. 629-660). New York: Elsevier Publishing.

Duhan, D. F., Johnson, S. D., Wilcox, J. B., & Harrell, G. D. (1997). Influence on consumer use of word-of-mouth recommendation sources. *Academy of Marketing Science, 25*(4), 283-295.

Dwyer, P. (2007). Measuring the value of electronic word of mouth and its impact in consumer communities. *Journal of Interactive Marketing, 21*(2), 63-79.

Erin, M. S., & Lawrence E. B. (2009). Social ties and online word of mouth. *Internet*

Research, 19(1), 42-59.

Eysenbach, G., & Kohler, C. (2002). How do consumers search for and appraise health information on the World Wide Web? Qualitative study using focus groups, usability, tests and in-depth interviews. *British Medical Journal, 324*(7337), 573-577.

Faircloth, J. B., Capella, L. M., & Alford, B. L. (2001). The effect of brand attitude and brand image on brand equity. *Journal of Marketing Theory and Practice, 9*(3), 61-75.

Flanagin, A. F., & Metzger, M. J. (2007). The role of site features, user attributes, and information verification behaviors on the perceived credibility of web-based information. *New Media and Society, 9*(2), 319-342.

Freeman, K. S., & Spyridakis, J. H. (2004). An examination of factors that affect credibility of online health information. *Technical Communication, 51*(2), 239-263.

Goldsmith, R. E., & Horowitz, D. (2006). Measuring motivations for online opinion seeking. *Journal of Interactive Marketing, 6*(2), 3-14.

Gu, B., Park, J., & Konana, P. (2012). The impact of external word-of-mouth sources on retailer sales of high-involvement products. *Information System Research, 23*(1), 182-196.

Hennig-Thurau, T., Kevin, P. G., Gianfranco W., & Dwayne, D. G. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing, 18*(1), 38-52.

Hu, Y. F., & Sundar, S. S. (2010). Effects of online health sources on credibility and behavioral intentions. *Communication Research, 37*(1), 105-132.

Jo, S. (2005). The effect of online media credibility on trust relationships. J*ournal of Website Promotion, 1*(2), 57-77.

Johnson, T. J., & Kaye, B. (2004). Wag the blog: How reliance on traditional media and the Internet influence credibility perceptions of weblogs among blog users. *Journalism and Mass Communication Quarterly, 81*(3), 622-642.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons, 53*(1), 59-68.

Kiecker, P., & Cowles, D. (2002). Interpersonal communication and personal influence on the Internet: A framework for examining online word-of-mouth. *Journal of Euromarketing, 11*(2), 71-88.

Kim, D. (2006). Abandoning traditional news? Examining factors influencing the displacement effects of online news on traditional news media. Unpublished doctoral dissertation, IL: Southern Illinois University.

Kliatchko, J. (2008). Revisiting the IMC construct: A revised definition and four pillars. *International Journal of Advertising, 27*(1), 133-160.

Kotler, P., & Keller, K. L. (2008). *Marketing management* (13th Ed.). NJ: Upper Saddle River.

Lazarsfeld, P., Berelson, B., & Gaudet, H. (1948). *The people's choice.* NY: Columbia University Press.

Lee, M., & Youn, S. (2009). Electronic word of mouth (eWOM): How eWOM platforms influence consumer product judgment. *International Journal of Advertising, 28*(3), 473-499.

Lenhart, A., & Fox, S. (2006). Bloggers: A portrait of the Internet's new storytellers. Pew Internet & American Life. Retrieved Feb 17, 2012, from http://www.pewinternet.org/pdfs/PIP%20Bloggers%20Report%20July%2019%202006.pdf

Mack, R. W., Blose, J. E., & Pan, B. (2008). Believe it or not: Credibility of blogs in tourism. *Journal of Vacation Marketing, 14*(2), 133-144.

MacKenzie, S. B., & Spreng, R. A. (1992). How does motivation moderate the impact of central and peripheral processing on brand attitudes and intentions? *Journal of Consumer Research, 18*(4), 519-529.

Metzger, M. J., Flanagin, A. J., Eyal, K., Lemus, D. R., & McCann, R. (2003). Credibility for the 21st century: Integrating perspectives on source, message and media credibility in the contemporary media environment. In P. J. Kalbfleisch (Ed.), *Communication yearbook 27* (pp. 293-335). NJ: Lawrence Erlbaum Associates.

資訊社會研究
Journal of Cyber Culture and
Information Society

Mitchell, A. A., & Olson, J. C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research, 18*(3), 318-332.

Nan, X. (2006). *The influence of source credibility on attitude certainty.* Paper presented at the annual convention of the Association for Education in Journalism and Mass Communication, CA: San Francisco.

Newhagen, J., & Nass, C. (1989). Differential criteria for evaluating credibility of newspapers and TV news. *Journalism Quarterly, 66*(2), 277-284.

Park, D. H., & Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. *Electronic Commerce Research and Applications, 7*(4), 399-410.

Phelps, J. E., Regina, L., Lynne, M., David, P., & Niranjan, R. (2004). Viral marketing or electronic word-of-mouth advertising: Examining consumer responses and motivations to pass along email. *Journal of Advertising Research, 44*(4), 333-348.

Pollach, I. (2006). Electronic word of mouth: A genre analysis of product reviews on consumer reviews on consumer opinion Web sites. In R. H. Sprague (ed.), *Proceedings of the 39th Hawaii international conference on system sciences*. CA: IEEE Computer Society Press.

Prendergast, G., Ko, D., & Yuen, S. Y. V. (2010). Online word of mouth and consumer purchase intention. *International Journal of Advertising, 29*(5), 687-708.

Pride, W. M., & Ferrell, O. C. (2011). *Marketing foundations.* TN: South-Western Cengage Learning.

Rieh, S. Y., & Danielson, D. R. (2007). Credibility: A multidisciplinary framework. *Annual Review of Information Science and Technology, 41*(1), 307-364.

Sabbane, L. I., Lowrey, T. M., & Chebat, J. C. (2009). The effectiveness of cigarette warning label threats on nonsmoking adolescents. *Journal of consumer affairs, 43*(2), 332-345.

Slater, M. D., & Rouner, D. (1996). How message evaluation and source attributes may influence credibility assessment and belief change. *Journalism and Mass*

Communication Quarterly, 73(4), 974-991.

Smith, D., Menon, S., & Sivakumar, K. (2005). Online peer and editorial recommendations, trust, and choice in virtual markets. *Journal of Interactive Marketing, 19*(3), 15-37.

Sun, T., Youn, S., Wu, G., & Kuntaraporn, M. (2006). Online word-of-mouth (or mouse): An exploration of its antecedents and consequences. *Journal of Computer-Mediated Communication, 11*(4), 1104-1127.

Sundar, S. S. (1998). Effect of source attribution on perceptions of online news stories. *Journalism and Mass Communication Quarterly, 75*(1), 55-68.

Sundar, S. S. (1999). Exploring receivers' criteria for perception of print and online news. *Journalism & Mass Communication Quarterly, 76*(2), 373-386.

Sundar, S. S. (2000). Multimedia effects on processing and perception of online news: A study of picture, audio, and video downloads. *Journalism & Mass Communication Quarterly, 77*(3), 480-499.

Sundar, S. S., & Naas, C. (2000). Source orientation in human-computer interaction: Programmer, networker, or independent social actor. *Communication Research, 27*(6), 683-703.

Sweeney, J. C., Soutar, G. N., & Mazzarol, T. (2008). Factors influencing word of mouth effectiveness: Receiver perspectives. *European Journal of Marketing, 42*(3), 344-364.

Tormala, Z. L., & Petty, R. E. (2004). Source credibility and attitude certainty: A metacognitive analysis of resistance to persuasion. *Journal of Consumer Psychology, 14*(4), 427-442.

Trusov, M., Bucklin, R. E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: Findings from an internet social networking site. *Journal of Marketing, 73*(5), 90-102.

Vilpponen, A., Winter, S., & Sundqvist, S. (2006). Electronic word-of-mouth in online environments: Exploring referral, network structure and adoption. *Journal of Interactive Advertising, 6*(2), 63-77.

Wilkie, W. (1986). *Consumer behavior.* New York: John Wiley and Sons, Inc..

資訊社會研究
Journal of Cyber Culture and
Information Society

Wu, C., & Shaffer, D. R. (1987). Susceptibility to persuasive appeals as a function of source credibility and prior experience with the attitude object. *Journal of Personality and Social Psychology, 52*(4), 677.

Yao, Q., & Huang, J. (2010). Effect of self-construal and persuasive strategies on willingness of consumers to restore brand relationship. In 2*010 International Conference on Information Management, Innovation Management and Industrial Engineering* (ICIII) (Vol. 2, pp. 154-157). IEEE, Kunming, China: Yunnan Normal University.

Zhang, Z. Q., Ye, Q., Law, R., & Li, Y. J. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management, 29*(4), 694-700.