



Research Article

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The path of influence of e-WOM on consumer purchase intention-based on electronic commerce in China

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ABSTRACT

Through Web-based consumer opinion platforms, the Internet enables customers to share their opinions on, and experiences with, goods and services with a multitude of other consumers; that is, to engage in electronic word of mouth (e-WOM) communication. We think that e-WOM can be decomposed into four factors: the communicator (sender), the stimulus (message), the receiver, and the response. The role of the four key elements path constitutes the difference of e-WOM and WOM. This effect path is different according to the different e-commerce mode: Share Comments Model, Opinion Leaders Model, Group-buying Model. Completely Free of Charge, Promotion Strategies, Cooperation with Banks, and the three strategies is the key factor of the e-WOM. Credit rating of Taobao solves the problem of quality and sufficiency of the information. They have feedback mechanism to let buyers evaluate the e-WOM after reading it.

Key words: e-WOM; Consumer Purchase Intention; Four Elements Framework

1. INTRODUCTION

Word-of-mouth (WOM) communication is a non-commercial, interpersonal dialog about a product, brand or service between consumers. With the growing popularity of online shopping and social networking, it is more convenient to share their viewpoints online. Just like the word of mouth in the real world, the electronic word of mouth (e-WOM) exists in the virtual community and plays more and more important role in consumers' daily life. It impacts the reputation of a product and buyers purchase decisions. It could even be used as tools of e-marketing for companies. So we would like to explore the factors influencing the adoption of e-WOM, and how people digest the information contained in the online reviews.

This research provides some insights and implications to the path of influence of e-WOM on consumer purchase intention. The structure of this article is as follows. Part 1 is the Literature review. Part 2 established a framework of analysis of e-WOM. Part 3 further discuss the path of influence between the four Elements. The last, we analyze the Taobao case using our framework.

Traditional word-of-mouth (WOM), which was originally defined as an oral form of interpersonal non-commercial communication among acquaintances (Arndt, 1967[1]), has evolved into a new form of communication, namely electronic word-of-mouth (e-WOM) communication. Consumers imitate each other following a social or vicarious learning paradigm (Hawkins, Best and Coney, 2004[2]), but perhaps more importantly, they also talk to each other. The Internet has provided consumers with increasing opportunities to participate in WOM activities through various communication channels, such as online forums, blogs, review sites, and social networking sites. According to the WOM Marketing Association (2011), 59 percent of Americans believe that offline WOM is more credible than online WOM. The number of online consumer reviews has reached 116 million and it is still on the rise (e-Marketer, February 2009). Meanwhile, 83 percent of Internet shoppers in terms of informational behavior, reported that their purchasing decisions are based on online product evaluations and reviews (Opinion Research Corporation, July

2008). Consumers still prefer and trust traditional WOM more.

Researchers have adopted various research approaches to investigate the e-WOM phenomenon. Indeed, studies on the impact of e-WOM communication can be classified into two levels: Market-level analysis and Individual-level analysis (Lee and Lee, 2009[3]). At the market-level analysis, researchers focused on market-level parameters (e.g., product sales). This line of studies used objective panel data (e.g., the rate and the valence of consumer reviews) extracted from the websites to examine the impact of e-WOM messages on product sales (Chevalier and Mayzlin, 2006[4]; Dellarocas, Zhang, and Awad, 2007[5]; Duan, Gu, and Whinston, 2008[6]). At the individual-level analysis, researchers postulated e-WOM as a process of personal influence, in which communications between a communicator (sender) and a receiver can change the receiver's attitude and purchasing decision (Kiecker and Cowles, 2001[7]; Park and Kim, 2008[8]; Cheung, Lee, and Thadani, 2009[9]).

Many studies have investigated the working mechanisms of e-WOM (Henning-Thurau and Walsh, 2003[10]). In the internet context, although the sender and the receiver of a message are often not known to each other, the message's trustworthiness should have significant influence on e-WOM effect as on traditional WOM (Senecal and Nantel, 2004[11]). Brister (1990)[12] also thought that since expertise comes partly from one's own experience and partly from one's own knowledge, when the sender exhibits high expertise, the receiver will think the provided information will be more correct, and hence the purchase decision will more likely be influenced by the information senders convey. Gilly et al (1998) [13] also discovered that the sender's expertise affected positively the receiver's purchase intention. Arndt (1967) [1] found that WOM seekers are selectively exposed to WOM messages and are more predisposed to such messages. Consequently, WOM messages have more influence on the purchase decision of receivers more actively seeking information. This was confirmed by Bansal and Voyer (2000) [14]. In the context of internet communication, according to Bickart and Schindler (2001) [15], the reason why internet forums can attract consumers to browse/search for product information and affect consumer's purchase behavior more than corporate web pages is because consumers believe information obtained from internet forums is more credible than that from corporate web pages, and hence is more convincing and persuasive. They also pointed out that the reason why information content provided by internet forum contributors is more trustworthy is because most contributors have their own experience about products/services, thus information seekers and receivers will not feel compelled to recommend or receive manipulated information. Nowadays using Web 2.0 tools such as RSS (Really Simple Syndication), blogs, Social Collaborative networking, Podcasting and online video, Massively Multiplayer Online Role Playing Game, Tagging, Mash-ups, and Wikis to express one's own experiences are widespread (Sigala, 2007[16]).

Recent studies related to e-WOM have examined many of the factors and effects of e-WOM, including factors influencing e-WOM intentions and the impact of the e-WOM affecting the consumer decision-making process (Okazaki, 2009[17]; Predergast et al., 2010[18] ;). Although many factors have been investigated in various disciplinary areas, including tourism, marketing, information systems, and advertising (Park and Gretzel, 2011[19]), few researchers have integrated these investigated factors to develop a more comprehensive understanding of the e-WOM mechanism.

2. FOUR ELEMENTS FRAMEWORK ANALYSIS

According to the traditional communication theories, there are four major elements in social communication, including the communicator (sender), the stimulus (message), the receiver, and the response. The communicator refers to the person who transmits the communication. The stimulus refers to the message transmitted by the communicator. The receiver is the individual who responds to the communication. The response is made to the communication by the communicatee.

1. Communicator

The communicator refers to the person who transmits the communication. e-WOM includes companies and consumers, but WOM only covers the consumers. And now, companies also hope to participate in the online community to have their own voice heard. Companies began to participate in the e-WOM directly through the network communication. Although so far, not all such attempts are fruitful. For most companies, how to succeed in the online community platform to share and make their voices heard is still in learning and groping stage. Any consumer can reach and exchange product information with a vast and geographically dispersed group of strangers. This could raise receivers' concern about the credibility of the reviews.

2. Receiver

The receiver is the individual who responds to the communication. The actual impact of the information received may vary person to person. The same content can engender very different responses in different recipients, depending on the recipients' perceptions, experience, and sources. Based on the framework which Balasubramanian

and Mahajan (2001) [20] provided, Focus-related utility is the utility the consumer receives when adding value to the community through his or her contributions. In a Web-based opinion-platform context, such contributions would include providing reviews and commentary on products and services of interest to other community members. This utility is based on the assumption that "adding value" to the community is an important goal of the individual.

3. Response

The response is made to the communication by the communicatee. In the e-WOM communication studies, factors related to a receiver's psychological state, such as purchase intention, attitude, information adoption, and trust, are the most commonly investigated outcomes (responses) of e-WOM communication. Based on the WOM communication literature, we have identified two concrete motives that are associated with approval utility: self enhancement and economic rewards. The self enhancement motivation is driven by one's desire for positive recognition from others. In the context of a Web-based opinion platform, this may take the form of being viewed as a consumption expert or intelligent shopper by other consumers.

4. Stimulus

The stimulus refers to the message transmitted by the communicator. The valence (positive, negative, or neutral), volume (the quantity of the information), and rating of WOM communication, have been receiving a lot of attention in recent investigations. Furthermore, it is possible consumers' articulations on Web-based opinion platforms are instigated with the hope that platform operators will actively support consumers in solving their problems. When e-WOM communication transmitted via Web-based consumer-opinion platforms is forwarded to companies by platform operators, such communication gives consumers the ability to express dissatisfaction with low financial and psychological risk. In this sense, platform operators are viewed as an advocate for the consumer, perhaps replacing other third-party institutions

3. PATH OF INFLUENCE BETWEEN THE FOUR ELEMENTS

Four elements based on the pattern of participation and information transfer in different ways can be divided into two kinds of main mode: share comments and opinion leaders. In two modes, the scope of the four elements play different roles, and the dominant factor are not same, but both has a direct positive effect on consumer purchase behavior.

1. Share Comments Model

Iresearch survey data show that functions users in the social shopping site commonly used are browsing (69.3%), followed by share (60.6%), like (55.2%) and comments (54.1%). Thus, in addition to browse information, interaction is also common activities in the social common shopping website .The most important channel for this kind of interaction is e-WOM.

In the share comments model, the communicator is all consumers who participate in shopping. This kind of broad consumers provides the guarantee about the quality of the goods. Consumers' evaluation provides the goods quality, logistics, and other information for potential buyers. It plays the role of a third party assessment. For instance, at mushroom street site, it appears in the form of pictures waterfalls flow sharing of goods and the user can choose "shopping" form of community and browse interested goods. The key of this model is the credibility of Communicators. Some people are not real consumers and just give lots of positive reviews on the objective product for the benefits of the company to mislead potential buyers. It is purely an occupation. The Receiver is mainly potential buyers. Commodity buyers are unable to observe the product by themselves, only through a communicator's comments to determine the credibility of merchants and the status of goods, which enhances their confidence in the good. Although the receiver can return the goods after the receipt, it no doubt increases the cost of the receiver. In this mode, the response is the comments which the potential buyers write after purchasing goods according to the actual situation on the web site. these reviews also provide information to other buyers. When information is enough, it can form the reasonable evaluation of this commodity. Stimulus depends on site management, the transfer process can set up multiple audits, and the Authenticity and reliability play a very important role for the effective information.

In this mode, consumers can find peer consumers' reviews on the product through the evaluation to decide whether to buy and can also comment their real feels about the product after they have received it. At present, sharing comments is one of the main mode of e-WOM, this also is the inevitable result of the electronic commerce development. In China, dianping.com is one of the typical website which shares comments as a business model. The successful website also includes douban.com. The website collects customers' comments as material of merchants credit evaluation. The data is very important for small and medium-sized businesses which are lack of personal credit evaluation in China. The relationship of four elements shows Figure 1:

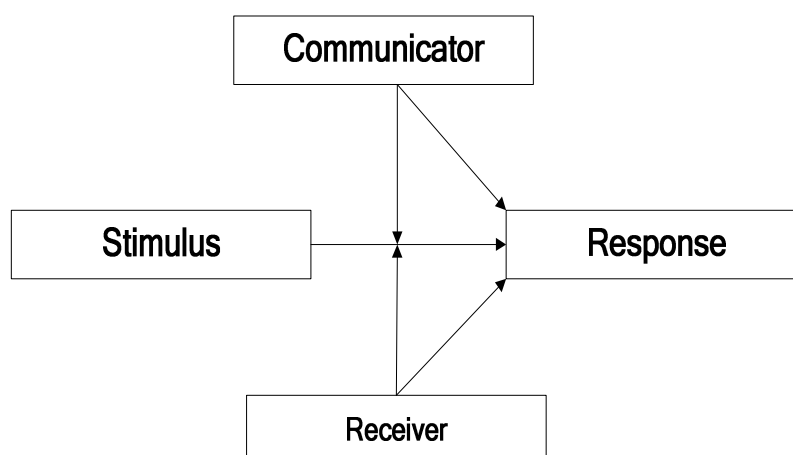


Figure 1 The relationship of four elements in Share Comments Model

2. Opinion Leaders Model

Consumer behavior theory has shown that in the consumer purchases, when there is no specific imitating model, consumers are rarely fully affirmed their attitude to goods. Consumers will arouse their strong desire to imitate when someone offers its specific mode to form a positive attitude. The key is to find the opinion leaders of e-WOM. Enterprises find out the opinion leaders in accordance with the specific circumstances of product market, and then the opinion leaders give comments and use their influence to persuade more people to buy the product.

In this mode shown in Figure 2, the communicators are opinion leaders. They accumulated reputation in other areas, or establish a reputation in sharing mode and can influence other commodity buyers. Opinion leader's comments can be risky which depends on personal reputation. Weibo.com is the typical example, which uses celebrity effect to attract a large number of users. Receivers are the masses of users, including registered and unregistered users. It is important to note that the Receiver is not just web site users in this mode, opinion leader's point of view can also be followed by the traditional media for some hot issues. This brings more widespread, more efficient communication effect. The negative information can also be able to spread and can be inevitable ruin the reputation of the goods. Response is more complex than sharing mode, in the online shopping decision area, the response of a customer is to follow up to purchase goods or to share information. The response can has further effects such as on social issues, through the traditional media, on public opinion and even drawing attention from government departments. Stimulus is more complex, the ways opinion leaders to comment is not just confined to the network, also includes television interview, published works, etc.. These ways will have an effect to the receiver. But sometimes, opinion leaders' opinion is not neutral and objective for commercial interests and in the process of sharing, receivers are unable to determine the authenticity of information.

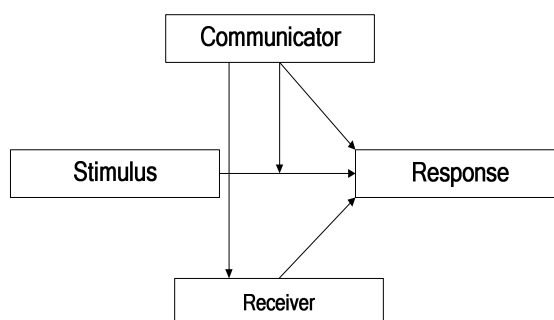


Figure 2 The relationship of four elements in Opinion Leaders Model

3. Group-buying Model

Group-buying, as a new type of electronic commerce mode, is rapid popular among consumers. The group-buying, absorbing significant group interaction and conformity become one of the important channels of e-WOM which spreads influence on consumers' behavior. The group-buying model in social e-commerce mainly includes freedom group and business group. Freedom groups form through some platforms, community for instant, where consumers are interested in the same product get together. Business group is organized by a seller or other business organization. This buying behavior may be initiated by the group purchase website or commodity sellers. It can be regarded as a new form of promotion. It is important to note that with the rise of group-buying websites, these groups begin to gain more powerful effect on potential customers.

In the group-buying model shown in Figure 3, communicator can be businesses, consumers, or professional group purchaser. The information of the products normally includes the price, the performance and so no to meet the requirements of the potential buyers. Receivers are mainly potential buyers, whose purpose generally has a specific point. The Response is a final consumer behavior and the response of feedback channel is limited. Stimulus is unitary, mainly to satisfy the consumer a particular aspect of utility. The transmission route can be variable, such as widely popular group-buying websites, television, advertising, holiday promotion form. The biggest characteristic of this pattern is that it is an one off thing. The group purchase behavior is over after the transmission behavior. Now browsing group-buying websites, anticipating in a buying group can be a daily behavior for customers. It is critical to get support and cooperation from the venders for the group purchase. In the current group purchase mode, the price is the most sensitive to consumers.

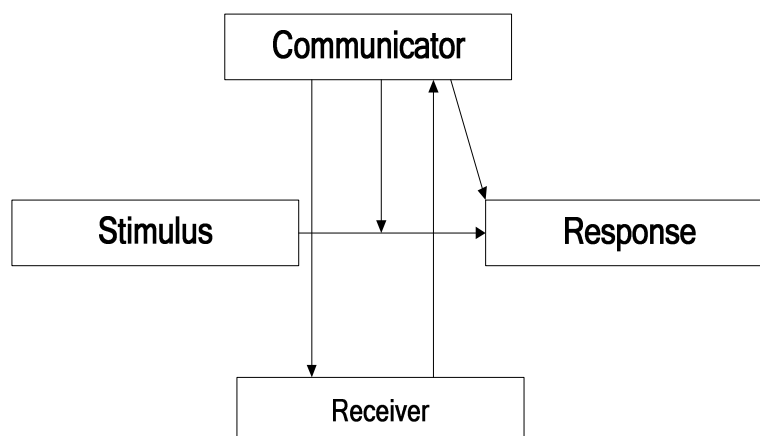


Figure 3 The relationship of four elements in Group-buying Model

4. CASE STUDY: TAobao CASE

In May, 2003, Taobao website was established by the biggest commodities trading site-Alibaba which invested one hundred million, and it provides a great platform for millions of Chinese people who prefer do shopping online, based on Alibaba's market experience and service capabilities of BtoB (business to business). Taobao built the leading domestic net-market and the personal transaction net-community, by its flexible operating trade. It also provides online business services to millions of members in the world. Taobao had become the largest E-commerce trading platform in China and became the largest E-commerce shopping centre in Asia, and it has influenced the whole industry, even the entire Internet. As shown from the Statistics in China National Network Information Center (CNNIC) 2008, the Transactions volume of Taobao has reached 99.96 billion Yuan, with an increase rate of 131 percent over 43.3 billion Yuan in 2007. Up to 2011, the transaction volume reached to almost 400 billion Yuan. Taobao is one of the typical uses of Share Comments Model. The several key factors are caught e-WOM key nodes.

1. The strategy of Taobao

Completely Free of Charge Strategy. At the beginning, Taobao told vendors that it did not charge listing fees and transactions fees in the first three years. Providing free services is the key to gather popularity in a short time and attracts amount of sellers and customers. In order to compete with eBay China, Taobao provided free services. As a result, it successfully replaced the position of eBay China to become the biggest retailers in C2C marketplace in China in only 2 years. To maintain the status of Taobao, Alibaba announced that Taobao will continue using free model for next 3 years in October, 2005. On October 8, 2008, at a news conference, Taobao announced to continue

its free charge strategy.

In the free mode, the communicator mass influx provides plenty of customers which is essential to further attract a large number of high quality shops. Taobao promoted comment to store level, so that the receiver reduces the cost of access to information, forming the virtuous circle.

Promotion Strategies. Due to the specification of SMS, a large number of small-sized and medium-sized sites lost the profits to some extent. Therefore Taobao put advertisements in these sites at a lower cost. Between April 2004 and April 2005, Taobao announced strategic alliances with Chinese Internet portal 21 CN, Sohu and MSN portal. The alliances establish long term win-win cooperation with each other. But Taobao is not satisfied, in recently years, it depends on commercial movies and famous TV program to expanding the reputation. The influences of media makes Taobao receive a good marketing effect. Promotion Strategies enrich the variety of the response and also improve the quality of the response. In view of the study of Taobao shows that, e-WOM adoption mainly depends on the argument quality message senders can provide, as well as the source credibility receivers perceived(Chen Di, Wang Luwen,2012[21]).

Cooperation with Banks. Taobao and Zhejiang branch of ICBC (the Industrial and Commercial Bank of China) signed a comprehensive economic cooperation agreement on October 27, 2003, which is used to protect against defaults and deceives. The cooperation puts the bank into the place of intermediary with network and E-commerce. The service not only increases the confidence of customers on a creditable payment and settlement, but also gives a convenient way for vendors to receive payment for goods and saves their time and energy.

2. Credit rating

It shows that sufficiency, accuracy and validity are all significant antecedents to affect the perceived argument quality. If the reviewer could provide more sufficient information to support his or her argument, the perceived argument quality will be higher. The reason is that if buyers could get plenty of information from one piece of e-WOM, the argument will be a well-founded argument to the message receiver. Only by applying accurate e-WOM can the reviewer create a high quality argument to the receiver. If some of the information in the argument is false, the receiver will take it as a low quality argument even though the argument conclusion is right.

Credit rating of Taobao tries to solve the problem of perceived credibility of the reviews by providing credit ratings. The buyer's Credit Evaluation is shown in Table 1:

Table 1. Credit rating of Taobao

Buyer's Credit Evaluation		Symbols
1 Heart	4 to 10 credits	
2 Heart	11 to 40 credits	
3 Heart	41 to 90 credits	
4 Heart	91 to 150 credits	
5 Heart	151 to 250 credits	
1 Yellow Diamond	251 to 500 credits	
2 Yellow Diamond	501 to 1000 credits	
.....	
5 Yellow Diamond	5001 to 10000 credits	
1 Red Crown	10001 to 20000 credits	
2 Red Crown	20001 to 50000 credits	
.....	
5 Red Crown	200001 to 500000 credits	
1 Pink Crown	500001 to 1000000 credits	
2 Pink Crown	1000001 to 2000000 credits	
.....	
5 Pink Crown	More than 10000001 credits	

Taobao also established the seller's Credit Evaluation as shown in Table 2

Table 2. The seller's Credit Evaluation

Seller's Credit Evaluation		Symbols
1 Heart	4 to 10 credits	
2 Heart	11 to 40 credits	
3 Heart	41 to 90 credits	
4 Heart	91 to 150 credits	
5 Heart	151 to 250 credits	
1 Blue Diamond	251 to 500 credits	
2 Blue Diamond	501 to 1000 credits	
.....	
5 Blue Diamond	5001 to 10000 credits	
1 Blue Crown	10001 to 20000 credits	
2 Blue Crown	20001 to 50000 credits	
.....	
5 Blue Crown	200001 to 500000 credits	
1 Gold Crown	500001 to 1000000 credits	
2 Gold Crown	1000001 to 2000000 credits	
.....	
5 Gold Crown	More than 10000001 credits	

Taobao members can evaluate the credit of transaction partner after finishing each transaction through "Zhifubao" payment platform. The comments include "positive", "neutral" and "negative". If "positive" the partner will get one score (credit); if "neutral" then zero; if "negative" a negative one score will be receive. Both buyers and sellers have to pay attention to their credits, because the total credits are divided to 20 ranks with particular mark in each rank, and these marks are displayed beside their usernames. It is no doubt that the traders with higher total credits (score), receive more trust and more partners, therefore more transactions and profits.

CONCLUSION

In the process of the development of electronic commerce, the action mode of e-WOM has been more and more attention, this article analyzes the four key elements of e-WOM: the communicator (sender), the stimulus (message), the receiver, and the response. The role of the four key elements path constitutes the difference of e-WOM and WOM. This effect path is different according to the different e-commerce mode: Share Comments Model, Opinion Leaders Model, Group-buying Model. In the case of Taobao, when the administrators design their systems, they could have a feedback mechanism to let buyers evaluate the e-WOM after reading it. By this way, the reviews with high degree of sufficiency, accuracy and validity will have a highly rated score, and the buyers will feel more convenient and time-saving when browsing the reviews. Moreover, if the tie with the reviewer is strong, the expertise of the reviewer is high, and the prior experience is perceived to be good, the e-WOM will be regarded to be more credible.

The limitation of this article is that it is not the econometric analysis on the mechanism of action of e-WOM and just describes how to use this kind of mechanism for business model design using Taobao case. In the concrete discussion, it didn't get in-depth discussion on mechanism of dynamic and what factors may affect the e-WOM paths.

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