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Hanchi Ye

School of Business Administration, Zhongnan University of Economics and Law, Wuhan, 430074, China,
yehanchi37215@sina.com

siqin Liu

School of Business Administration, Zhongnan University Economics and Law, Wuhan, 430074, China, 87716371@qq.com

jie Gong

School of Business Administration, Zhongnan University Economics and Law, Wuhan, 430074, China

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The Effect of E-WOM Presentation Order on Consumer Attitude: The Moderating Role of E-WOM Sources

*Hanchi Ye, Siqin Liu, Jie Gong**

School of Business Administration, Zhongnan University of Economics and Law,
Wuhan, 430074, China

Abstract: Internet, as a new channel of WOM, enables consumers to get multiply WOM messages. However, there is a very real consumer situation that consumers may receive opposite messages (positive-negative) from the same sources. According to tie strength, this paper divides e-WOM sources into strong tie sources and weak tie sources, examining how e-WOM sources moderate the influence of e-WOM presentation order on consumer attitude. The results of empirical study show that when opposite e-WOM messages from strong ties, consumers will be more influenced by the later e-WOM message. Hence, consumer attitude will be more positive in negative-positive e-WOM order than positive-negative order. However, when consumers receive opposite e-WOM messages from weak ties, consumer attitude will be more influenced by negative e-WOM instead of e-WOM presentation order. That is, no matter e-WOM presentation order maybe, it will lead to negative attitude of consumers.

Keywords: e-WOM presentation order; e- WOM sources; source credibility; consumer attitude

1. INTRODUCTION

Word of mouth, which defined as “oral, person to person, communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service” [1], plays an important role in shaping consumer attitude and behaviors [2]. WOM on the Internet is called electronic word-of-mouth (e-WOM). Different from traditional WOM, e-WOM is measureable since reviews on a product are written and available in the websites [3]. Internet, as a new channel of WOM, has enabled consumers to get multiply WOM messages from message sources [4] and the message sources contain not only a person who is known by the message receiver, such as family and friends, but also a person who never meet before on the internet, such as a user of website. Obviously, internet has dramatically increased the amount of available WOM message [5] and message sources.

In a common multi-message condition, there exists a very real consumer situation: consumers may receive inconsistent messages (positive-negative) from different sources on a single topic, product or service [6]. However, they may receive inconsistent messages from the same sources as well. For instance, by chance, a consumer might have first encountered a positive online review of a product from a website. Soon afterward, he or she may have encountered a negative review of this product from the same website. While, another consumer may has encountered this two inconsistent messages in exactly opposite order. One important question is that whether the presentation order of inconsistent messages from the same sources will influence consumer attitude. It means that different presentation order of message may lead to consumers more supportive of a topic, product and service or not.

Previous research has well established the importance of e-WOM on consumer behaviors, but a lot of the existing e-WOM research is grounded in one-sidedness e-WOM, either positive e-WOM or negative e-WOM, but little is known about how consumers respond to integrating e-WOM from the same sources, especially from

* Corresponding authors Email: yehanchi37215@sina.com (Hanchi Ye); 87716371@qq.com (Siqin Liu)

a perspective of presentation order. Hence, this paper aims to examine how presentation order of e-WOM affect consumer attitude by exploring e-WOM sources as a moderator.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Order effects

Two effects of order have received attention. One type of order effects, known as a primacy effect, occurs when judgments are more consistent with the earlier message than later. Another type of order effects, known as a recency effect, occurs when judgments are more consistent with the later message than earlier [7].

The existing consumer research of order effect has focused on presentation order of prosecution and defense arguments (Furnham, 1986), interview information (Farr, 1997), price information (Suk, 2012), product attributes (Kardes and Herr 1990). Highhouse (1997) found that observers rated the candidate whose exercises in positive-negative order significantly lower on oral communication skill and overall performance than those whose exercises in negative-positive order [7]. Wangyiling (2010) indicated that presentation order of two-sidedness messages had impact on consumers' brand attitude [8]. Suk (2012) used reference dependence theory as a framework, found that when price options were presented in descending order, consumers tended to choose higher-price options, but when they were presented in ascending order, consumers tended to choose lower-priced options [9]. It shows that the message presentation order will has a strong influence on individual's attitude and decision making.

Hogarth and Einhorn (1992) developed a belief-updating model. An individual's current belief serves as an anchor that is adjusted on the basis of new evidence. This revised belief then becomes the anchor for the next adjustment, and so on [7]. According to this model, when inconsistent evidences are evaluated, more weight is attached to the piece of evidence when it comes second in a sequence rather than first [10]. Similarly, for inconsistent e-WOM messages, we suggest that consumer will be more influenced by the later e-WOM. Thus, we hypothesize:

H₁: Presentation order of e-WOM has a significant effect on consumer attitude (more positive attitude following negative-positive than positive-negative order).

2.2 Source credibility and tie strength

Source credibility refers to a receiver's perception of credibility of a message source; it is not concerned with message itself [11]. Previous research has found that source credibility can directly form or change a receiver's attitude, and that message provided by a highly credible source will produce a greater effect on perceived message credibility [12]. Furthermore, in the information persuasion process, receivers will evaluate the information's credibility first; information credibility determines how much the receivers adopt the viewpoint of the received information [13]. Therefore, receivers are more inclined to adopt the message which from a highly credible source [12].

Tie strength is generally determined by the extent of time, emotional closeness, intimacy and reciprocity of the relationship [14]. Consumers generally have a wide range of relationship ties within their social network, ranging from strong ties such as close friends and family members to weak ties such as those acquaintances rarely seen and complete strangers [5]. According to tie strength, this paper divides e-WOM sources into strong tie sources and weak tie sources. Roger (1995) argued that strong tie sources are perceived more credible and trustworthy than weak-tie sources [15]. As a result, e-WOM from strong-ties will be more credible than that from weak-ties and receivers are more willing to believe and accept it [16].

We expected that the effects of e-WOM presentation order on attitude will be stronger when e-WOM from strong ties as compared to weak ties. Due to the high credibility of strong tie sources, consumers will accept the e-WOM message of a product from strong ties, and form the initial attitude toward this product. After a while, if

consumers receive another opposite e-WOM message of this product from the same source, consumers will adjust his or her initial attitude based on the later e-WOM message. In this condition, e-WOM presentation order has an important impact on consumer attitude. However, for less credible weak ties, receivers will discount the value of the e-WOM message they received [17], because they may have difficulty in determining the credibility of e-WOM message sources and the credibility of message itself [18]. In addition, negative e-WOM are relevant with potential loss or risk, consumers would rather trust negative e-WOM to reduce potential purchase risk [19]. As a consequence, the impact of negative e-WOM becomes much stronger when e-WOM from weak ties. Hence, attitude is more influenced by negative e-WOM instead of presentation order in weak tie sources condition. Thus, we hypothesize:

H₂: e-WOM sources will moderate the effect of e-WOM presentation order on consumer attitude. The effect of e-WOM presentation order will be significantly greater, when e-WOM from strong tie sources compared to when it from weak tie sources.

2.3 Research model

According to the hypotheses above, we put forward our research model (as Figure1). This paper aims to investigate the effect of e-WOM presentation order on consumer attitude and the moderating role of e-WOM sources.

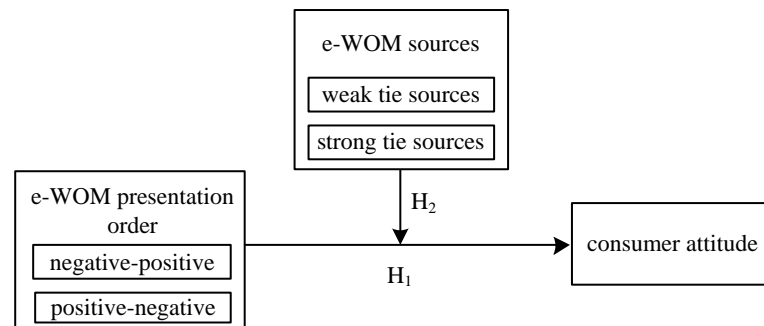


Figure 1. Research model

3. METHOD

3.1 Subjects and design

To test the proposed hypotheses, a 2(e-WOM presentation order: positive-negative, negative-positive) × 2(e-WOM source: strong ties, weak ties) between-subjects design was implemented.

We used movie as the product category for the study due to the familiarity of this product to the subjects and it was believed that WOM strongly influences people's movie selection [20]. To avoid the influence of prior attitude of movie, we chose a movie which would be released on 25th December in Hong Kong, while it had previewed on November in American (our study executed on 16th December). The reviews of this movie on domestic websites were much fewer. Therefore, the reviews we adopted mainly from IMDB Official Website. Then, we translated those English reviews into Chinese and processed them to form our finally target reviews for study. In the experience, we didn't use the actual movie's name and actors' name to avoid subjects identifying the movie through the reviews.

We conducted a series of pretests to examine the effectiveness of manipulation of target movie reviews. According to previous research, we measured positive and negative target reviews from three aspects: extremity, strength, believability [21]. Subjects were exposed to either a positive or negative reviews. Then, they were asked to rate the reviews on a 7-points scales (-3 to +3). Pretest showed that the positive and negative reviews presented were significantly different in their extremity; but not in strength and believability. Besides, the positive reviews contained three supportive arguments and the negative reviews contained three against arguments. The review message was equal in length (approximately 160 words each).

3.2 Procedure

138 students from a major university in Wuhan were randomly assigned to the experimental conditions. Subjects were instructed to imagine that they planned to see a movie, and just a new movie would be released next week. Then, they were showed two opposite movie reviews in sequence. Half the subjects received e-WOM in a positive-negative order and half in negative-positive order.

We used close friends of micro-blog and unknown users of a post bar as strong tie sources and weak tie sources, respectively. Subject encountered these two opposite reviews from either two close friends of micro-blog or two unknown users of a post bar. The well-suited color pictures were designed in our questionnaire to simulate lifelike scenarios.

3.3 Measures

After reading the two reviews, subjects were first asked to indicate their attitude toward the movie. Attitude was measured on three 7-point semantic differential scales (park, 2007) assessing how good/bad, like/unlike, satisfactory/unsatisfactory subjects considered the movie would be ($\alpha = 0.904$).

In the manipulation of e-WOM sources, tie strength was measured by using a 4-items, 7-point Likert scales (Frenzen and Davis, 1990), ranging from “extremely agree” to “extremely disagree” ($\alpha = 0.867$).

4. RESULTS

Of the subjects, 6% subjects failed to complete the questionnaire and thus were dropped. Hence, the final sample was 130 (21.5% men and 78.5% women) and gender had no significant effect on attitude ($M_{\text{male}} = 4.17$; $M_{\text{female}} = 4.03$, $p > 0.5$) and tie strength ($M_{\text{male}} = 4.02$; $M_{\text{female}} = 4.18$, $p > 0.6$). ANOVA results indicated that the manipulation was successful as average value of tie strength was significantly higher in close friends versus unknown users conditions ($M_{\text{strong}} = 5.09$; $M_{\text{weak}} = 3.15$; $t(130) = 9.45$, $p < 0.001$). That is, subjects perceive strong tie with their close friends of micro-blog and weak tie with unknown users of post bar.

We also analyzed attitude with a 2×2 ANOVA. As predicted in H_1 , attitude was significantly affected by e-WOM presentation order. The subjects who received opposite reviews in negative-positive order rated attitude higher than who received in positive-negative order ($M_{\text{P-N}} = 3.85$, $M_{\text{N-P}} = 4.29$, $p < 0.05$). It means that later reviews has a strong effect on attitude. This is consistent with recency effect. Thus, when consumers receive e-WOM about a product in negative-positive presentation order, it will lead to more positive attitude of consumers. H_1 is supported. Figure 2 displays the outcome of the analysis.

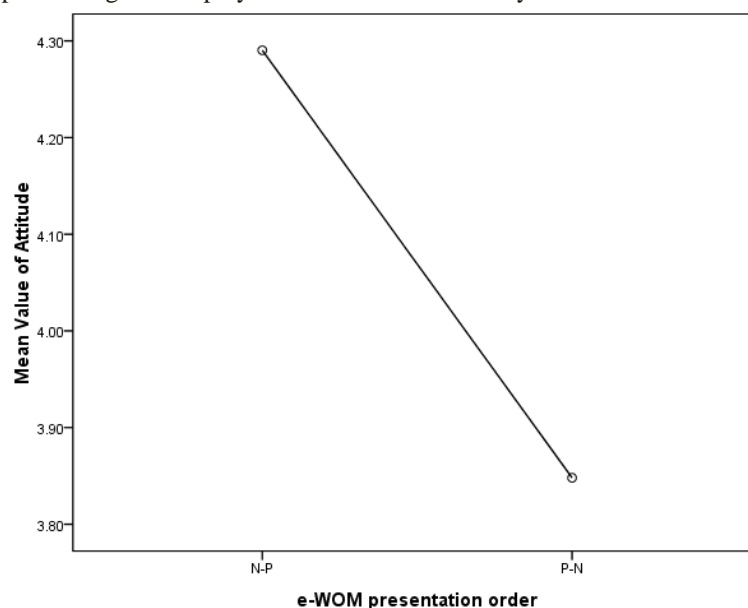


Figure 2. Effect of e-WOM presentation on Attitude

In addition, the analysis revealed a significant interaction effect between e-WOM presentation order and e-WOM sources ($F(1,129) = 3.277; p < 0.1$). When e-WOM from strong tie sources, the effect of e-WOM presentation order would be significantly greater, because consumers were willing to accept e-WOM message from strong ties, but soon they received another opposite e-WOM message of this product from the same sources, they would adjust their initial attitudes according to the later e-WOM message. Consistent with the prediction, e-WOM presentation order had significant effect on attitude in strong tie sources condition. Subjects rated attitude more positive in negative-positive order relative to positive-negative order ($M_{N-P} = 4.59; M_{P-N} = 3.83, P < 0.05$).

While, when e-WOM from weak tie sources, attitude had no difference in negative-positive order versus positive-negative order ($M_{N-P} = 3.95; M_{P-N} = 3.86, P > 0.6$) and the average value of attitude for either P-N or N-P groups was anchored below the average 4. This explains that attitude is more influenced by negative e-WOM instead of e-WOM presentation order. H_2 is therefore supported. Figure 3 displays the outcome of the analysis.

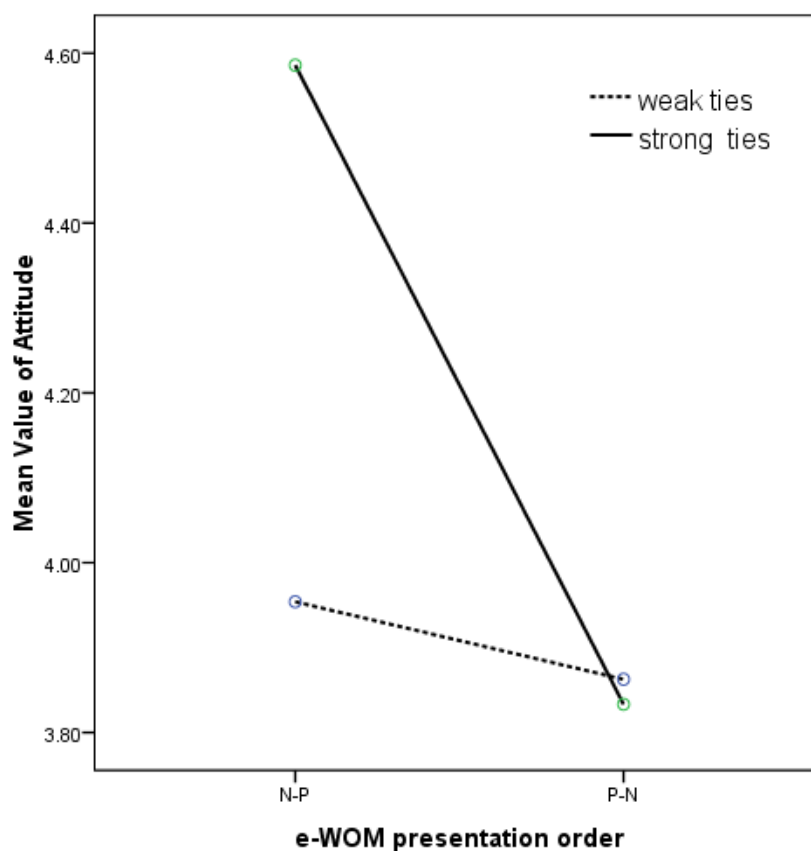


Figure 2. Interaction Effects of E-WOM Presentation Order and E-WOM Sources

5. CONCLUSIONS AND MANAGERIAL IMPLICATION

The main goal of this paper is to evaluate how consumer attitude is affected by e-WOM presentation order and the moderating effect of e-WOM sources. In internet environment, consumers can receive opposite e-WOM from the same source. Hence, it is necessary to determine the differences in consumer attitude when consumers encounter inconsistent e-WOM in opposite presentation order. The result shows that later e-WOM has greater impact on consumer attitude compared to earlier e-WOM (recency effect). Disseminating e-WOM message in negative-positive order will lead to more positive consumer attitude toward a product.

Moreover, for strong tie sources, consumer attitude will be influenced by e-WOM presentation order.

Consumers put more weight on the later e-WOM. For weak ties sources, e-WOM presentation order (either negative-positive order or positive-negative order) has no significant effect on consumer attitude, and attitude will be more influenced by negative e-WOM instead of e-WOM order.

In virtual marketing, marketers should choose appropriate communication channels and order to disseminate product information. When the tie strength between information sender and receiver is strong, dissemination of negative information should prior to positive information. While, when the tie strength is weak, marketers should try to reduce the spread of negative information.

6. LIMITATIONS AND FUTURE RESEARCH

The results presented in this study are limited by a number of factors—many of which can be addressed in future studies. First, this study dealt with e-WOM regarding movie reviews. Although movie is highly relative to subjects, results may not be generalizable to other product categories. Second, this paper designs the well-suited color pictures to simulate lifelike scenarios, but prior research has found that vehicle types (e.g. audio vs. print) of e-WOM may affect consumer attitude. Further research should attempt to investigate the effect of e-WOM presentation order when e-WOM message is conveyed by different vehicle. Third, the premise of this study is that consumers have no prior attitude to the product, but in fact, consumers are exposed to a lot of information about the product and have already existed attitude toward it. Hence, future research is needed to determine the effect of presentation order when consumers have prior attitude.

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