

## **eWOM Richness of Leisure Farm Tour Experience: Influences of Message Valence, Product Type and Consumer Knowledge**

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### **Abstract**

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Rich information facilitates consumer buying judgment and decision-making, and therefore enhances marketing communication effectiveness. Drawing on the information richness theory, this study attempts to address how valence of electronic word-of-mouth (eWOM), product type and consumer knowledge will yield different levels of eWOM richness perception for experience goods versus search goods. The results based on a three-way experimental study with 156 valid responses suggest that negative eWOM has a stronger effect in producing eWOM information richness than does positive eWOM, and such effect is more pronounced for a leisure farm tour (experience goods) than for digital camera (search goods). The tendency that negative eWOM will provide richer information for the leisure farm tour is more evident for high-knowledge consumers than for low-knowledge consumers. The study's results caution against the aggravated harm of negative eWOM incurred from the dissatisfactory experience of a leisure farm tour. The managerial implications for the practitioners are provided.

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**Key Words:** Electronic word-of-mouth, Tour experience, Product type, Consumer knowledge

### **Introduction**

Consumers nowadays are eager to spread their own consumption-related experience in interesting, storytelling, and attention-drawing ways, which make electronic word-of-mouth (eWOM) become more vivid, intensive and richer than ever (Henning-Thurau et al. 2004; Mazzarol et al. 2007). Of all the eWOM characteristics, information richness plays a critical role in trading activities or buying decisions (Senecal and Nantel 2004). It appears that rich information can help firms or stores not only increase customer loyalty but also deliver effective marketing communications (Palvia et al. 2011). Since eWOM serve as a powerful marketing medium for companies to reach and influence consumers (Kozinets et al. 2010), it is important to understand the role of information richness in the eWOM context.

There has been a proliferation of research concerned with the characteristics of eWOM (e.g. Park and Lee 2009; Zhang et al. 2010) and how these characteristics are related to the majority of purchase decisions (e.g. Leskovec et al. 2007; Sweeney et al. 2008) and product sales (e.g. Chevalier and Mayzlin 2006; Godes and Mayzlin 2009). While a number of studies have shown various levels of information richness in communication media across online reviews (e.g. Chevalier and Mayzlin 2006), newsgroups (e.g. Godes and Mayzlin 2004), or RSS (really simple syndication) (e.g. Hwang 2011; Lan and Sie 2010), information richness of eWOM remains less probed.

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Given that communication performance is highly pertinent to information richness (Purdy and Nye 2000), the central purpose of this study is to shed light on the determinants of eWOM richness perception. Although eWOM has vigorous information-carrying properties that are equipped with feedback immediacy, multiple-cue diffusion variety and interpersonal influence, eWOM richness of experience goods such as a leisure farm tour in contrast to non-experiential products has received limited research attention. Drawing on the information richness theory (IRT) (see Daft and Lengel 1986), this study attempts to address how positive or negative eWOM paired with product and consumer characteristics will produce different levels of eWOM richness perception.

The message valence has been extensively investigated in the stream of eWOM communications research. There is a general agreement that the message valence of eWOM plays a key role in determining eWOM effect (De Matos and Vargas 2008; Dellarocas and Narayan 2006; Lee et al. 2008; Park and Kim 2008; Park and Lee 2009). Over the past years of research on eWOM, a number of issues have appeared; some of which remain controversial in spite of message valence of eWOM. While studies have shown that negatively framed eWOM is more influential than positively framed eWOM (e.g. Park and Lee 2009); others declined this viewpoint (Doh and Hwang 2009; Gershoff et al. 2003). The mixed findings suggest that there is a need to further specify the situations in which eWOM valence will cause various effects. As product type and consumer knowledge have been found to greatly affect information search and information processing (Berger and Schwartz 2011; Dhar and Wertenbroch 2000; Klein 1998; Park and Kim 2008; Park and Lee 2009; Park et al. 2007; Ratchford et al. 2003), the present study hopes to gain a better understanding of how eWOM valence, product type, and consumer knowledge will co-work to generate eWOM richness perception. Thus, the objective of this study is to examine how eWOM message valence and product type will produce various levels of information richness when consumers exhibit different levels of product knowledge in the eWOM context. The next section introduces the theoretical background of the study, followed by the description of methodology and results of the experimental study. Conclusions and implications are further discussed.

## **2. Theoretical Foundations**

### **2.1 Information richness theory**

While many consumers have difficulty in ensuring information clarity, rich information helps reduce uncertainty and enhance communication outcomes (Otondo et al. 2008). Information richness is therefore crucial in conducting effective eWOM communications and consumer decision-making (Chu 2008; Park et al. 2007). As the information richness theory proposed, information richness that conveys information-carrying capacity not only clarifies ambiguity but also enhances understanding of the meaning of information (Daft and Lengel 1984, 1986).

Four main criteria constitute useful resources for judging information richness, namely, feedback immediacy, amount of cues, language variety and message personalization (Daft and Lengel 1986). First, the feedback immediacy refers to the speed and quality transmitted through information. For example, short message service (SMS) text has been considered as a richer form of information than either email or RSS for timeless delivery (Lan and Sie 2010). Second, cue utilization strategies enhance richness of information, such as words, numbers, graphic symbols or emoticons. For instance, Shaw et al. (2009) support the superiority of blogs over instant message service (IMS) since blogs integrate hypertext, pictures, emoticons, audio, and asynchronous feedback. Third, language variety refers to language symbols such as numbers and neutral languages that deliver a boarder set of concepts. Last, message personalization refers to the extent to which the message helps senders cope with personal feelings and emotions and enable them to tailor the specific needs to message receivers. In all, the more above criteria are met, the higher the information richness can be claimed for a message (Daft and Lengel 1984). As eWOM enables asynchronous feedback, offers message personalization, and integrates multiple cues and natural languages, many of its features could serve as the basis for a scrutiny of information richness.

### **2.2 eWOM valence and information richness**

In line with the preceding four attributes to determine information richness proposed by the information richness theory, it is inferred that negative eWOM will perform better on feedback immediacy. This is because negative information makes the outcome more undesirable and imminent, so that it is more influential and attention-grabbing in the short term (Trope and Liberman 2000, 2003). Also, negative information is more salient, emotional arousing, novel, valuable and attention drawing compared with positive information (Klein and Ahluwalia 2005).

Furthermore, a negative eWOM has a greater speed of diffusion (Chen and Xie 2005) and thus a stronger influence in terms of eWOM communications (Park and Lee 2009) and eWOM persuasiveness (Zhang et al. 2010) than a positive eWOM. According to the theory of information diagnosticity (Feldman and Lynch 1988; Herr et al. 1991) and negativity hypothesis (Czapinski 1988; Kanouse and Hansen 1971; Peeters and Czapinski 1990), negative information will be more attentive, diagnostic, helpful and thus preferred (Ahluwalia 2002; Ahluwalia et al. 2001; Phillips et al. 2008). For persuasion effectiveness, negative information is perceived as more diagnostic and vivid (Herr et al. 1991; Sweeney et al. 2008). Nonetheless, to reach credibility and persuasiveness, compared with positive WOM, negative WOM needs to provide more vivid and novel elements such as figures, more pictures, numbers and tables, highly evocative words or phrases, and storytelling techniques (Sweeney et al. 2008).

As noted by the IRT, the improvement of the four information richness attributes helps reduce information ambiguity and uncertainty (Daft and Lengel 1986; Daft et al. 1987). In other words, highly uncertain messages are in greater need of rich information for lessening misunderstanding in order to ensure transmitting quality (Lo and Lie 2008; Palvia et al. 2011). Given that negative information is generally presented with negative consequences and lack of beneficial results, it tends to arouse stronger feelings of outcome uncertainty (Broemer 2002; Fiske 1980; Kanouse and Hanson 1971). Information richness is more necessary for a negative eWOM than for a positive eWOM to better ensure credibility and persuasiveness. In line of this logic, any better performance of information richness will be also more identifiable on a negative eWOM than on a positive one. Therefore, it is postulated that,

**H1:** Negative eWOM will yield greater information richness perception than will positive eWOM.

### 2.3 Product type

Characteristics of a product are shown to be essential to online information use (Huang et al. 2009; Moe and Fader 2001), consumer decision-making (Dhar and Wertenbroch 2000), eWOM information processing (Hassanein and Head 2006; Park and Lee 2009), and ongoing eWOM dissemination (Berger and Schwartz 2011). As proposed by Nelson (1970, 1974), a product's search attributes are contrary to experience attributes in the aspects of purchase or actual use. Search attributes are the product attributes that consumers can obtain complete product information prior to purchase or without actual use of the product such as size or price (Chiang and Dholakia 2003). By contrast, experience attributes of a product such as taste and fit are those that consumers can only evaluate by acquiring the product information through purchase and actual use of the product. Information of experience products involves more subjective judgment hinging on individual differences in perception of consumption experience or presentation of one's own experience with regard to the information cues such as storytelling elements, numbers of pictures, and consumer feedback ratings; whereas information of search products provides more standard or concrete product specifications (Hoch and Ha et al. 1986; Weathers et al. 2007).

As opposed to the attributes of search goods (e.g. price, weights, battery life for digital camera), which are endowed with objective, standard and diagnostic attributes, the attributes of experience goods (e.g. how much fun from a leisure farm tour) are inherent in subjective, idiosyncratic, uncertain, and ambiguous elements (Hoch and Deighton 1989; Hoch and Ha et al. 1986). As experience attribute is more ambiguous and abstract, consumers will need to reconstruct different pieces of information into an overall product evaluation (Coupey 1994; Johnson 1988; Johnson and Russo 1984). According to the information richness theory, highly ambiguous and uncertain attributes which create more latitude for judgment are important factors in accounting for superior performance of information richness (Daft and Lengel 1986; Lo and Lie 2008; Palvia et al. 2011). Besides, information richness will be higher for personal-oriented subjective message than for functional-oriented objective message (Otondo et al. 2008). Therefore, this study suggests that experience goods will yield higher eWOM information richness than will search goods.

**H2:** eWOM of experience goods will yield greater information richness perception than will that of search goods.

### 2.4 eWOM valence and product type

Based on the information richness theory, this study proposes that negative eWOM will outperform positive eWOM to generate information richness considering that negative eWOM contains more feedback immediacy, language variety and number of cues and thus presents richer, more ambiguous and uncertain information than does a positive eWOM.

Following this line of logic, the effect of eWOM valence on information richness perception is expected to be more salient for experience goods than for search goods given that experience goods constitute with more abstract, uncertain, subjective, and ambiguous attributes. In similar logic, Park and Lee (2009) have validated that the effects of eWOM valence on product preference, purchase intention and credibility are greater for experience goods than for search goods. Thus, it is proposed that,

**H3:** The effect that negative eWOM in contrast to positive eWOM will yield greater information richness perception will be stronger for experience goods than for search goods.

### **2.5 eWOM valence, product type and product knowledge**

Assessing product information often requires certain levels of cognitive processing. Past research suggests that product knowledge plays a vital role in information acquisition, search, and evaluation (Klein 1998; Park and Lessig 1981; Park et al. 2007). Research also indicates that more knowledgeable consumers evaluate information based on product attributes, while less knowledgeable consumers make judgment based on information valence (Sundaram et al. 1998). This is because high-knowledge consumers who have pre-existing knowledge and well-developed product schema are less sensitive to message valence, whereas low-knowledge consumers whose knowledge structure about search attributes is relatively under-developed are thus more susceptible to message valence (Alba and Hutchinson 1987; Dodds et al. 1991; Grewal et al. 1998; Herr et al. 1991; Park and Kim 2008; Sundaram et al. 1998). In line of this logic, it is expected that the interactive effect of eWOM valence and product type will be more pronounced for high product knowledge consumers than for low product knowledge consumers. When an experience goods is circulated with negative eWOM, it gives rise to higher level of uncertain, ambiguous, subjective, and abstract attributes (Cheema and Papatla 2010; Hassanein and Head 2006), all of which make eWOM richness evaluation a much more complex task compared to a decision on either search products or positive eWOM.

In this case, less knowledgeable consumers may have difficulty in processing such uncertain and abstract information due to limited capacity and more demanding in cognitive efforts and cognitive loads (Eppler and Mengis 2002; Reutskaja and Hogarth 2009). On the contrary, knowledgeable consumers due to higher capacity will more appropriately allocate their cognitive resources to process information and minimize their cognitive efforts (Park and Kim 2008); hence, they could efficiently retrieve existing knowledge in response to multiple cues provided by an experience product's negative eWOM. Consequently, consumers with high product knowledge are more likely to engage in information seeking and exploring behavior (Cheema and Papatla 2010). In line with above reasoning, the interactive effect of eWOM valence and product type on information richness should be more impactful on high product knowledge consumers and be more attenuated on low product knowledge consumers. Thus, it is predicted that,

**H4:** When consumers have high product knowledge, the effect that negative eWOM (vs. positive eWOM) yields greater information richness perception for experience goods (vs. search goods) will be more intensive. Conversely, when consumers have low product knowledge, negative eWOM will yield greater information richness than will positive eWOM regardless of product type.

## **3. Method**

The present study aims to investigate whether eWOM valence, product type and consumer's product knowledge will produce various levels of information richness perception. To assess these effects, the stimuli for manipulating eWOM valence and product type were developed through a pilot study of eWOM narrative analysis.

### **3.1 Stimuli**

#### **3.1.1 Narrative analysis and eWOM valence manipulation**

In order to better understand the nature of eWOM content and structure in a naturalistic setting that serves as a useful starting point for identifying appropriate stimuli for the experimental manipulation of eWOM, a qualitative technique, i.e., paradigmatic narrative analysis of eWOM posting, was firstly conducted to determine the narrative elements and their meanings (Labov 1972). A narrative refers that a consumer uses storytelling techniques to script personal stories, for example, the description of how an event is taken place or what actions are involved (Gubrium and Holstein 1998).

According to Labov (1972), fully-formed narrative structures encompass a wide range of abstract (the summary of the whole story), orientation (time, place, person), complicating action (what happened in the story), evaluation (emotional or instrumental evaluation), resolution (how things resolved by the character) and coda (the conclusion and discussion of the story). Since a narrative structure could exert influence on consumers' perceptions, empathy, transportation and purchase intention (Oliver et al. 2012), the direct comparisons of the positive and negative eWOM must be conducted with caution by controlling the potential confounding effect of narrative structures.

This study conducted the paradigmatic narrative analysis through identifying and sorting the eWOM posts in terms of valence and product category. An online review website in the researchers' country, Mobile 01.com, was chosen since it is the largest domestic online message boards and forums in which more than four million and fifty thousand members share a broad variety of product reviews and consumption experiences. The Mobile 01.com comprises of diversified product categories, such as digital products, software, video games, electronics, apparels, furniture, food, toys, traveling experience, cosmetics, and so on. For the research purpose to compare eWOM in terms of search versus experience goods, two major product categories were selected in this study. For experience goods, 52 cosmetics and 55 traveling and food articles were selected. For search goods, products were relatively evenly distributed across electronics (25), cell phone (25), digital camera (33), and laptop computer (25).

The data collection last over four months and consisted almost extensively of all the related eWOM from Mobile 01.com during the time period. In total, 215 eWOM articles were included in the narrative analysis. Two of the judges each coded the thoughts by using the Nvivo 9.0 qualitative analysis software. The inter-judge agreement was on average 98 percent. Disagreements were resolved through discussion, so that all thoughts were coded. Narrative structures were firstly extracted and used to construct the content of eWOM. Next, product attributes were examined to determine the underlying attributes that may account for the main source of product type (i.e. search goods and experience goods). Positive and negative eWOM stimuli from the result of paradigmatic narrative analysis were adopted and reorganized as the stimuli of positive and negative eWOM in the experimental main study. To determine the product type to be used in the experimental study, digital camera and leisure farm tour were finally chosen to respectively represent the search and experience goods in that the two products were relatively the most discussed categories on Mobile 01.com. The selection rationale is further elaborated in the next section.

For manipulation control of the experimental study, both positive and negative eWOM were constructed to have the same narrative structures (orientation, complicating action, evaluation, resolution and coda). Embedded with different products (the purchase of digital camera/ the consumption experience of leisure farm tour), the positive eWOM in the experiment was consisted of online posters' favorable comments about the digital camera/leisure farm tour in terms of seven positive product/experience features followed by desirable outcomes and benefits in the end of eWOM. Contrarily, the negative eWOM was consisted of online posters' unfavorable comments about the two products by presenting seven negative product/experience features followed by undesirable outcomes and flaws to conclude the eWOM. All the versions of eWOM were exhibited similarly in length, content structures, and number of product attributes.

### **3.1.2 Product type**

For search goods, digital camera was selected for the main experiment because purchase of a digital camera is considered highly involving and technological (e.g. Fong and Burton 2006; Sohn 2009). Digital cameras have standardized specifications that consumers are more likely to search the product reviews and eWOM prior to purchase. For experience goods, leisure farm tour was chosen. Consumers tend to search about overall tour quality, visitors' satisfaction, and personal recommendations of a leisure farm; consequently, leisure farm holiday is extensively advertised through eWOM (Embacher 1994; Pearce 1990; Sidali et al. 2012). Leisure farm holiday experience is thought of as highly personal, experiential, and subjective, it is therefore suitable for a eWOM study (Sidali et al. 2012). Also, the present research expects that product knowledge and experience with digital cameras and leisure farms will vary across different participants, which allows the comparison of eWOM richness perception between different knowledge groups. As a result, digital camera and leisure farm were selected to represent search goods and experience goods.

Experiential attributes of a leisure farm tour are constituted by ticket information, large print tour guide, parking, location, animal habitats, and design, construction and maintenance of facilities and related equipment, such as playground, toilet and food court. Search attributes of a digital camera encompass a wide range of specifications including weight, size, storage, battery life, megapixel count, shutter lag and start-up time, and filming and sound/video editing software supporting the format of camera recording. These attributes were identified from the paradigmatic narrative analysis, which received broad discussion among consumers while evaluating digital cameras or leisure farm holidays. Based on past literature and the result of paradigmatic narrative analysis, the above-mentioned attributes are considered suitable for the eWOM manipulation of the main study.

### 3.2 Participants

To access the general population, the data were collected using an online channel, where 156 valid adult samples were recruited from a survey website, Youthwhat.com (<http://www.youthwant.com.tw>), one of the largest survey sites in the researchers' country. The participants were instructed to register the membership of Youthwhat.com and received thirty-dollar value of virtual currency in return for their participation upon completion of the study. The virtual currency can be used in the Youthwhat.com for spaces of digital albums, personal blogs, or price discounts for digital merchandise and coupons for discounts in 7-11 convenience stores. In total the valid 156 responses were mixed genders (60 males and 96 females), well-educated (62.8% college degree and 14.7% graduate degree), and mainly students (70.5%). The eWOM posting experience of the participants ranged from less than one year (28.8%) to five years (5.1%), of which 62.2 % of participants had posting experience less than two years.

### 3.3 Procedure

A 2 (eWOM valence: positive vs. negative) X 2 (product type: digital camera vs. leisure farm tour) X 2 (product knowledge: high vs. low) between-subjects design was employed. Product knowledge was measured as a within-subject variable in order to assess the difference among the sample, while both the constructs of eWOM valence and product types were manipulated as between-subjects variables. The respondents were shown the scenario of eWOM posts and randomly assigned to one of the four versions. Each questionnaire contained four parts: (1) instruction and the scenario with the valence cues and product type manipulation, (2) dependent measures (i.e. information richness perception), product preference (control variable), and manipulation check items, (3) individual measures (i.e. product knowledge) and susceptibility to information influence (control variable), and (4) personal information. The two manipulation check questions asked participants whether the eWOM was positive or negative, and whether the product type presented in the eWOM was with search or experience attributes. The data collection was done under strict supervision and control. If respondents failed the manipulation check questions, they were regarded as invalid samples and eliminated.

The main dependent variable was the eWOM information richness perception. The term information richness was used to refer to various information presentations such as feedback and product comparisons. Modified from Chen and Tan (2004), the construct of information richness was measured by five items: "a consumers' satisfaction with the feedback to his or her request for product information", "the use of different channels to present product information", "the ability to clarify ambiguous issues about the product", "the extent to which product comparison is allowed", and "a consumer's overall attitude towards the information richness of eWOM". Each item was measured based on a seven-point Likert scale with "1= strongly disagree" to "7= strongly agree". The Cronbach's alpha for information richness perception was .845

Consumer product knowledge served as a moderator in this study. Past research suggests that subjective knowledge is highly correlated to objective knowledge (Carlson et al. 2009; Kwon and Lee 2009; Moorman et al. 2004). Subjective knowledge refers to the degree to which consumer perceive how much they know about the product (Brucks 1985; Park et al., 1994). As consumer judgment and decision are largely affected by self-assessed knowledge (Carlson et al. 2009; Kwon and Lee 2009; Moorman et al. 2004), this study thus adopted subjective knowledge to evaluate product knowledge and measured the construct by using the items from Brucks (1985) and Park et al. (1994). The three product knowledge items were: "I feel I am confident in using digital camera/leisure farm information compared to the average consumers", "I feel I am knowledgeable in using digital camera/leisure farm information compared to the average consumers", and "I feel I am confident about my ability to comprehend digital camera/leisure farm information". Each item was measured based on a seven-point Likert scale with "1= strongly disagree" to "7= strongly agree".

The Cronbach's alpha for product knowledge was .802. A median split analysis was used to divide the respondents into high vs. low knowledge consumers (Mean=4.63, SD=.08 vs. Mean=2.95, SD=.07,  $t(154)=-16.493$ ,  $p<.001$ ).

Based on past research, the influence of information sources relatively vary across consumers' Internet experience in that more experienced consumers perceive online information source less credible and important (Cheema and Papatla 2010). Thus, this study expects that the recipient's susceptibility to informational influence may affect perception of information richness. Considering the potential confounding effect caused by individual difference other than product knowledge, susceptibility to informational influence was thus measured and analyzed as covariates. Adapted from Bearden et al. (1998), four items were applied to measure susceptibility to informational influence on a seven-point scale from "strongly disagree (1)" to "strongly agree (7)", in term of "To make sure I buy the right product or brand, I often observe what others are buying and using", "If I have little experience with a product, I often ask my friends about the product", "I often consult other people to help choose the best alternative available from a product class", and "I frequently gather information from friends or family about a product before I buy". The Cronbach's alpha for susceptibility to informational influence was .904. Also, to control product preference, four items adopted from Lee and Lee (2009) were used for measurement on seven-point Likert scale with "1= strongly disagree" to "7= strongly agree": "I would opt for this product", "I would like to have this product", "this product would fit my taste", and "this product would be meaningful to me". The Cronbach's alpha for product preference was .962.

#### 4. Results

Hypotheses were examined in a 2 (eWOM valence: positive vs. negative) by 2 (product type: leisure farm tour vs. digital camera) by 2 (product knowledge: high vs. low) mixed factorial design. A three-way ANCOVA was performed to test the research hypotheses. Product preference and susceptibility to informational influence were examined as covariates.

As predicted, the results of the ANCOVA showed a significant main effect of eWOM valence on information richness perception ( $F(1, 146)=34.476$ ,  $p<.001$ ). The negative eWOM yielded higher information richness perception than the positive eWOM (Mean=4.66, SD=1.03 vs. Mean=4.06, SD=1.13;  $t(154)=-3.414$ ,  $p<.001$ ) (Table 1). H1 is supported. The main effect of product type is also significant ( $F(1, 146)=11.207$ ,  $p<.001$ ). The leisure farm tour (experience goods) generated higher information richness perception than did the digital camera (search goods) (Mean=4.74, SD=.94 vs. Mean=4.08, SD=1.17;  $t(154)=-3.836$ ,  $p<.001$ ), sustaining H2.

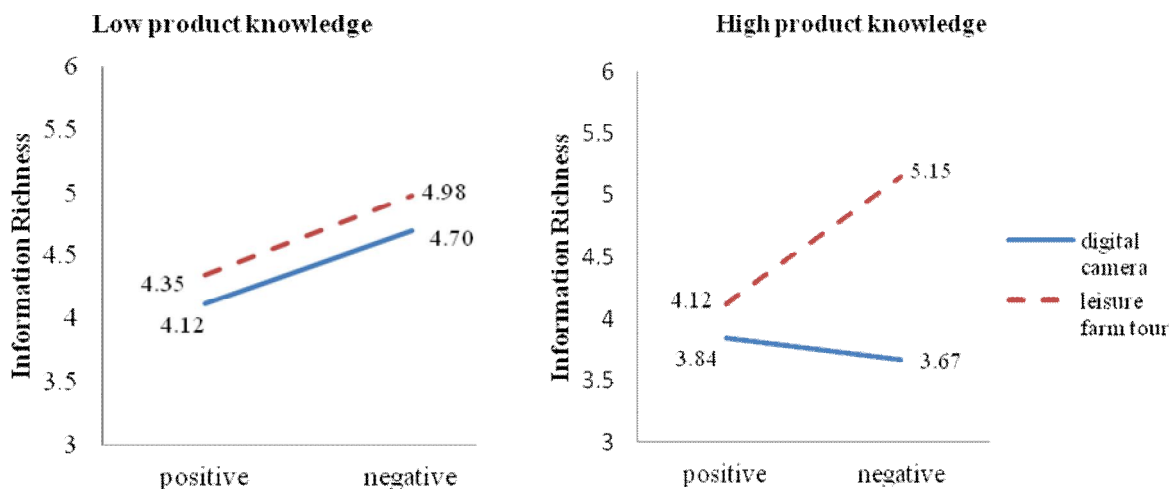
**Table 1: Three-Way Interaction: Means and Standard Deviations.**

	Low product knowledge				High product knowledge			
	Digital camera		Leisure farm tour		Digital camera		Leisure farm tour	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Positive eWOM	18	4.12 (1.30)	11	4.35 (1.28)	23	3.84 (1.01)	17	4.12 (1.05)
Negative eWOM	21	4.70 (1.21)	24	4.98 (0.64)	20	3.67 (0.94)	22	5.15 (0.60)

More importantly, the interaction of the eWOM valence and product type is also significant ( $F(1, 146)=9.551$ ,  $p<.05$ ) (see Figure 1). The mean difference in information richness perception between the negative eWOM (Mean=5.06, SD=.62) and the positive eWOM (Mean=4.21, SD=1.13) for leisure farm tour is .85, whereas the mean difference in information richness perception between the negative eWOM (Mean=4.2, SD=1.13) and the positive eWOM (Mean=3.97, SD=1.14) for digital camera is 0.23. The mean difference in information richness perception between negative and positive eWOM is stronger for leisure farm tour than for digital camera (planned contrast  $F=8.392$ ,  $p<.05$ ). Consequently, H3 is supported.

Hypothesis 4 tested the interaction of the eWOM valence and the product type between the high vs. low knowledge consumers. A significant three-way interaction effect was found ( $F(1, 146)=4.191$ ,  $p<.05$ ). For high product knowledge consumers, it showed a significant interaction between the eWOM valence and product type.

The difference in information richness perception between the negative eWOM (Mean=5.15, SD=.60) and the positive eWOM (Mean=4.12, SD=1.05) for leisure farm tour is 1.03, whereas the difference between the negative eWOM (Mean=3.67, SD=.94) and the positive eWOM (Mean=3.84, SD=1.01) for digital camera is -.17. Overall, the tendency that the difference in information richness perception between negative and positive eWOM is stronger for leisure farm tour was much more pronounced for high knowledge consumers (planned contrast  $F=13.21$ ,  $p<.001$ ). However, this tendency was not observed for low knowledge consumers (planned contrast  $F=1.077$ , n.s.). For low product knowledge consumers, the difference in information richness perception between the negative (Mean=4.98, SD=.64) and positive eWOM (Mean=4.35, SD=1.28) for leisure farm tour is .63, whereas the difference between the negative eWOM (Mean=4.70, SD=1.21) and the positive eWOM (Mean=4.12, SD=1.30) in for digital camera is .58. Therefore, the interactive effect of the eWOM valence and product type is prominent for more knowledgeable consumers but not for consumers with less product knowledge. Thus H4 is substantiated.



**Figure 1: Interaction among eWOM Valence, Product Type, and Product Knowledge on Information Richness**

## 5. Discussion

Information richness and its implications in creating marketing communications effectiveness are the prominent topics that have been long recognized, yet how information is presented in a rich way in terms of eWOM content about products of different type is relatively under discussed. Drawing on the information richness theory (Daft and Lengel 1986), the current study enhances the understanding by a closer scrutiny into how consumers with different levels of product knowledge will perceive the information richness of positive versus negative eWOM for experience goods such as leisure farm tour and search goods such as digital camera. Overall, this study's findings are in accord with the results of previous studies that have tested eWOM valence (Doh and Hwang 2009; Halstead 2002; Harrison-Walker 2001; Park and Lee 2009), despite the fact that no prior study has examined the eWOM content in a narrative structure.

Results of the qualitative analysis in the present study reveal that the narrative structure of eWOM content through the paradigmatic narrative analysis is capable of providing more adequate source and explanation of the effects of eWOM valence and product attributes. eWOM content comprised of abstract, orientation, complicating action, evaluation, resolution, and finally coda can be best used to properly present eWOM valence and product attributes for reaching the realm. The findings of the experimental study manifest that the negative eWOM is more effective than the positive eWOM in eliciting information richness perception (H1) and validate the theory of information diagnosticity (Feldman and Lynch 1988; Herr et al. 1991) and negativity hypothesis (Czapinski 1988; Kanouse and Hansen 1971; Peeters and Czapinski 1990). The results resonate that the number of cues, language variety and the feedback immediacy of negative eWOM were superior to those of the positive eWOM. As negative information is more attentive, diagnostic, preferred and uncertain, it is more feasible for message senders to elaborate the content of eWOM by adding more vivid and novel elements to appeal the product to the receivers in more storytelling, humorous, and emotional ways.



The present study also reveals that product type is tied closely with perceived information richness of eWOM content (H2). Our finding is in line with Sundaram et al. (1998) in identifying that consumers responding more to product attributes than message valence will require more expended cognitive efforts. Specifically, the leisure farm tour as experience goods shows to outperform the digital camera (search goods) in producing greater eWOM information richness, given that the experiential attributes of the tour are more abstract, ambiguous, and subjective (Hoch and Deighton 1989; Hoch and Ha et al. 1986; Otondo et al. 2008). Furthermore, the difference in information richness between the negative and positive eWOM is more pronounced for leisure farm tour than for digital camera. eWOM of leisure farm tour embedded with negative comments is considered providing more rich information, while eWOM of digital camera is deemed as short of information richness, regardless of eWOM valence (H3). The possible alternative explanation lies in the construal level theory (CLT) in social cognition (Trope and Liberman 2000), which posits that when high-level construals of options (e.g. experience goods) are negative, they are more attractive and influential in comparison to the positive options in the near future.

The present study further explores the role of product knowledge and discovers that the effects of eWOM valence and product type are stronger for consumers with high product knowledge than for those with low knowledge (H4). For knowledgeable consumers, the negative eWOM yields higher information richness than the positive eWOM, and such effect exhibits stronger for leisure farm tour compared to digital camera. This could be mainly because the leisure farm tour as experience goods circulated with negative eWOM will facilitate higher level of uncertain, ambiguous, subjective, and abstract attributes to encourage information elaboration. In this case, less knowledgeable consumers who have under-developed knowledge structure and limited cognitive capacity may find it more difficult in elaborating such kind of information.

Among the hypotheses examined, some interesting findings are worth mentioning. We observed that the mean difference of information richness between the negative and positive eWOM for digital camera is smaller for high knowledge consumers (3.67 vs. 3.84) than for those of low knowledge (4.70 vs. 4.12). The more likely explanation rests in the nature of search attributes. When reading the eWOM, knowledgeable consumers firstly retrieve their existing schemas and knowledge nodes for anchoring and then adjust what they receive from the eWOM upward toward the anchor by using the anchor-and-adjust strategy (Krishna and Johar 1996) to evaluate information richness. Since the search attributes of the digital camera are standardized and objective, the upward adjustment toward the internal anchor is insufficient for evaluating information richness. It is thus difficult to encourage knowledgeable consumers to elaborate on product attributes of search goods. As such, presentation of negative product information of search goods to high knowledge group may even gradually attenuate the eWOM effect. By contrast, low knowledge consumers who possess less-developed knowledge structures and ambiguous product schemas, are heuristically biased to respond more to vivid and extreme cues (i.e. the negative eWOM), regardless of product type. A partial explanation for this finding may lie in the vividness/availability principle (Tversky and Kahneman 1973) by which negative information typically is more vivid, extreme, and highly available when consumers retrieve from short-term memory of eWOM at the time of information evaluation. In sum, our observations suggest that consumers are likely to form information richness perception which is largely affected by their product knowledge and the interplay of eWOM valence and product type. These results help further extend and clarify the role the information richness plays in the eWOM communications.

## 5.1 Implications

This research delineates the roles of message valence and product characteristics in bringing eWOM information richness and explores how eWOM valence may interplay with product type and individual knowledge level to affect information richness perception. eWOM communications varied in feedback immediacy, language variety, multiple cues, and personal focus, are suitable for studying information richness. Previous scholarly work seems not to have paid sufficient attention to eWOM as an illustrative communication medium. Through filling such void, the present research contributes to study the message valence of eWOM more thoroughly by narrative analysis and laboratory experiment. A number of studies have dealt with either extremely positive or extremely negative WOM (Halstead 2002; Harrison-Walker 2001; Heitmann et al. 2007); however, there have been few attempts (e.g. Doh and Hwang 2009; Park and Lee 2009) to directly compare the effectiveness of positive eWOM with negative eWOM when product type is considered.

This study complements the past eWOM research by more comprehensively taking both product and individual characteristics into consideration.

Secondly, the results reported in this article have demonstrated that product type plays a critical role in information processing and thus information richness perception. The present study contributes to the IRT literatures by revealing that the interplay of eWOM valence and product type is crucial for determining information richness of eWOM communication. Specifically, the employment of adequate message valence under different product type context is vital in approaching consumers with diverse product knowledge. The negative eWOM will generate higher information richness perception when it is coupled with experience goods such as leisure farm tour. This implicates that negative eWOM of leisure farm tour experience or similar experiential products will bring greater impacts on consumer's judgment given that negative eWOM is considered providing richer and more useful information. Hence, managers of experiential tourism should pay carefully attention to any bad word-of-mouth and timely fend off any negative WOM distributed online.

Overall, our findings indicate that novices attend more to negative eWOM regardless of product category. Yet for opinion leaders or market mavens who are recognized as more knowledgeable, the negative messages generate stronger eWOM communication richness for leisure farm tour, which implies that high knowledge consumers will be more attentive to negative eWOM of experience goods. Hence, marketers should be extremely cautious about the harm of negative eWOM spreading for experience goods or services. Knowledgeable consumers may perceive the negative cue more concrete and credible given its nature of vividness and extremity while exposed to the negative eWOM that details experiential attributes. On the other hand, in situations where advertisers or retailers seek to introduce search goods with standardized attributes, the positive message cues will generate more information richness toward eWOM communications than the negative message cues. Therefore, the key to effective eWOM communication lies in how to leverage the ingrained association between message valence and product category to influence the opinion leaders who have major influence on the novices. Another possible solution is to proactively provide more concrete, clear, certain attributes across product category that may help attenuate the harm caused by the unfavourable eWOM that negatively concretizes the experiential attributes of products or services. Finally, to successfully integrate eWOM characteristics and product category, the marketers need to dynamically evolve by adjusting valence of eWOM communications to adapt to consumers with varied product knowledge.

## 5.2 Limitations and future research

Although the present study has rendered findings that have both theoretical and managerial implications, some limitations need to be taken into consideration. First, this study only examined the antecedents of eWOM valence and product type, future research may consider investigating other message characteristics in depth and either harmful or beneficial consequences of information richness. For instance, less knowledgeable consumers may have difficulty in processing rich information due to limited capacity and thus are likely to be hurdled by cognitive overloading (Eppler and Mengis 2002; Reutskaja and Hogarth 2009). Additional research focusing on these aspects will be of great interest and value in understanding the causes and consequences of information richness.

Second, the present study verified that consumers varying in product knowledge will respond differently in perceiving information richness of valenced eWOM of experience goods (leisure farm tour) vs. search goods (digital camera). In addition to product knowledge, it is plausible for future research to further identify other individual difference factors of information richness perception, such as regulatory focus tendency in processing information of valences. The regulatory focus theory (RFT) suggests that people can achieve their goals in either promotional or preventive ways (Higgins 1998). As positive reviews are found more persuasive for promotional consumers, while negative reviews are more convincing for preventive consumers (Zhang et al. 2010), it is interesting to look into how such enduring disposition of individuals' processing focus may alternate the reception effectiveness of positive and negative cues for search vs. experience products in eWOM communications.

Finally, this study is confined to the adoption of global assessment of information richness perception from Chen and Tan (2004), which falls short of detailing the different aspects of information richness. More research work is in need to develop and measure information richness in terms of the four dimensions proposed by the information richness theory (i.e. feedback immediacy, multiple cues, language variety and personal focus). While this study has the above limitations, it is hoped that it can serve as an important groundwork for further study in eWOM communication richness when different types of products are concerned.

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