EFFECT OF ELECTRONIC WORD-OF-MOUTH ON CONSUMER PURCHASE INTENTION: THE PERSPECTIVE OF GENDER DIFFERENCES

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ABSTRACT

Electronic word of mouth is available to customers in different types of online consumer reviews, which can be used to help them make e-commerce purchasing decisions. Customers acknowledge that online consumer reviews help them to determine eWOM credibility and to make purchasing decisions. This study uses surveys and multiple regression analysis to create an extended Elaboration Likelihood Model that describes the relationship between customer expertise, involvement, and rapport to acceptance and use of electronic word of mouth in making purchasing decisions. The study focuses on the cultural effects of gender on the extended Elaboration Likelihood Model and purchasing decisions in e-commerce virtual communities. Study results show that involvement has the most significant effect on perceived eWOM credibility. Study results show that perceived eWOM credibility has a significant effect on eWOM acceptance and intent to purchase. Study results also show the male customers have different e-commerce shopping behaviors than female customers.

Keywords: eWOM, E-commerce, Gender

1. INTRODUCTION

Customers read electronic word-of-mouth (eWOM) to make purchasing decisions. Studies show that social factors affect acceptance of eWOM [12,18]. eWOM can be found in virtual communities: consumer reviews, blogs, forums, and social networks. Social norms or opinions in the virtual communities affect acceptance of eWOM, particularly among regular internet users [13,14].

Personal attributes also affect acceptance of eWOM. Expertise and involvement can help customers determine eWOM quality [3,20]. Trust is an important antecedent of behaviors, such as accepting advice, that require dependence on others [15]. Customers depend upon trust to overcome high-level risks associated with online shopping [22]. As a result, trust affects purchasing decisions [4]. Credibility is an element of trust. If customers believe that advice is credible, they are more willing to accept and use the eWOM to make purchasing decisions [6,16].

Cultural factors, such as gender, also affect use and acceptance of eWOM [10]. Women generally use virtual communities to give and receive social support; men generally use virtual communities to increase and protect social standing [1].

This study investigates social factors, personal attributes, and cultural factors that can affect use and acceptance of eWOM. The study shows that gender differences affect use and acceptance of eWOM and purchasing decisions.

2. THEORY AND HYPOTHESES

2.1 The Elaboration Likelihood Model

This study uses the Elaboration Likelihood Model (ELM) to describe customer acceptance and use of eWOM [20]. The ELM states that individuals who are able and willing to process a message are more likely to use central concepts to consider persuasive information. In other words, they are more likely to generate their own thoughts in response to persuasive information. The ELM states that individuals who are not able or willing to process a message are more likely to use peripheral concepts to consider persuasive information. In other words, they are more likely to generate mental shortcuts in response to persuasive information.

In the ELM, expertise is associated with ability to process information; involvement is associated with willingness or motivation to process information [21]. Expertise gives individuals the ability to process information; involvement gives individuals the motivation to process information. Customers that have more expertise have more confidence to make

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purchasing decisions; they refer less to outside opinions. [3] Consumers that have higher involvement have more motivation to understand products; they refer more to outside opinions.

2.2 Credibility

Trust determines what people expect from a situation. Trust also reduces uncertainty in both social and business interactions [1] However, in virtual communities, customers cannot touch products or meet eWOM senders to develop trust. As a result, when customers read product information, reviews, and recommendations, they must depend upon their own expertise and involvement to determine eWOM credibility. eWOM credibility is the extent to which customers perceive that product information, reviews, or recommendations are factual, true, or believable [6].

In the ELM, expertise is associated with ability to process information. Customers that have high levels of expertise can process information based upon their own related knowledge and experiences [19]. As a result, expertise affects perceived eWOM credibility. The first hypothesis of this study is that higher levels of expertise create lower levels of perceived eWOM credibility:

H1: Higher levels of expertise create lower levels of perceived eWOM credibility.

In the ELM, involvement is associated with motivation to process information. Involvement can be situational or enduring [5]. Situational involvement is a temporary involvement with a product when making a purchasing decision. Enduring involvement is a stable involvement with a product over a long period of time, due to personal interest. Customers with higher levels of involvement are motivated to read more reviews and recommendations. The second hypothesis of this study is that higher levels of involvement create higher levels of perceived eWOM credibility:

H2: Higher levels of involvement create higher levels of perceived eWOM credibility.

2.3 Rapport

Customers trust eWOM more if it is from close relatives or friends, people with whom they have high tie strength [3,24]. However, in online communities, customers sometimes trust eWOM even if it is from people with whom the have low tie strength. The findings show that trust can also be based upon rapport. Rapport is the perceived level of similarity between eWOM readers and senders.

Rapport is an affective bond that a person feels toward another person, which arises from shared preferences, tastes, and lifestyles [22]. Rapport affects interpersonal communication and customer trust [11]. The third hypothesis of this study is that higher levels

of rapport create higher levels of perceived eWOM credibility:

H3: Higher levels of rapport create higher levels of perceived eWOM credibility.

2.4 Acceptance

Acceptance of eWOM is based upon social norms or opinions in virtual communities. Readers establish eWOM credibility early in the evaluation process [26]. If readers establish that a review or opinion is credible, they have more confidence to accept the eWOM contained in the review or opinion [23]. They also have more confidence to use the eWOM to make purchasing decisions [16]. The fourth hypothesis of this study is that higher levels of perceived eWOM credibility create higher levels of eWOM acceptance:

H4: Higher levels of perceived eWOM credibility create higher levels of eWOM acceptance.

The fifth hypothesis of this study is that higher levels of eWOM acceptance create higher levels of intention to purchase:

H5: Higher levels of eWOM acceptance create higher levels of intention to purchase.

2.5 Gender

According to sociolinguistic theory, cultural factors, in particular gender, affect communication [7]. In virtual communities, gender plays an important role in communication and e-commerce transactions [25]. Women communicate differently than men [10]. Women use the internet to give and receive social support. Their communication is typically focused on cooperation and network-oriented collaboration [28]. Their e-commerce transactions are more emotional [8]. Men use the internet to increase and protect social position [1]. Their communication and e-commerce transactions are more pragmatic [8].

Women are more concerned about privacy when using the internet. They are also more concerned about risk during e-commerce transactions [9]. As a result, it is important to consider the gender differences in e-commerce transactions to support female participation and to thereby promote the sustainable growth of online shopping [2]. Women are more involved in traditional shopping than men. With proper virtual community design and support, women can become as involved in online shopping as men [27].

Online consumer reviews can be used to reduce perceived risk and increase intent to purchase in online shopping [20]. The goal of this study is to show that gender differences affect acceptance and use of eWOM in e-commerce transactions. The study uses an

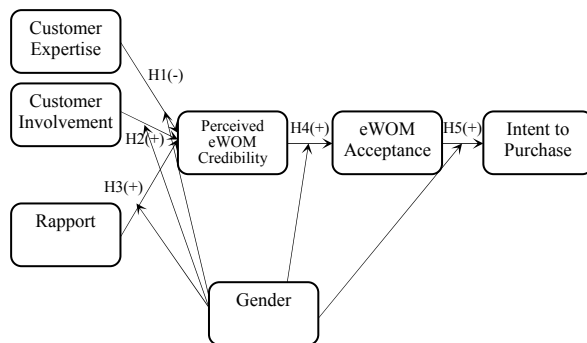expanded model to describe customer acceptance and use of eWOM. Figure 1 shows the expanded model.

Figure 1: Expanded Model

3. RESEARCH METHOD

Previous studies showed that customers frequently purchase electronic products in online shopping malls. The studies also showed that electronic products are usually complicated. As a result, customers rely on product reviews from experienced users to make purchasing decisions [20,19].

In this study, twenty different types of electronic products were chosen from an online shopping mall (http://shopping.pchome.com.tw). Fifty-one customers were surveyed to determine the products for which they used eWOM most to make purchasing decisions. Table 1 survey results show that the customers used eWOM most to make purchasing decisions for smart phones.

Table 1: eWOM products (51 customers)

Product	Count	Product	Count
Smart phone	31	Digital voice recorder	9
Laptop computer	26	MP3 player	9
Digital camera	26	Sub-notebook computer	7
Desktop computer	18	2.5 inch hard disk	7
Flash drive	18	3.5 inch hard disk	6
Traditional cell phone	17	Electronic dictionary	6
Tablet computer	15	Inkjet printer	4
Computer mouse	14	Laser printer	3
Computer keyboard	12	Digital video recorder	3
LCD monitor	11	Earphone	1

A second survey was developed based upon results from the first survey and a review of previous studies. The iPhone was used as an example smart phone to decrease product differentiation. The second survey was posted on three iPhone-related public forums:

telnet://ptt.cc
http://www.mobile01.com
http://www.sogi.com.tw

One- hundred-seventeen customers were surveyed to collect information concerning their eWOM experiences. One- hundred-seventeen responses were received. One-hundred-sixteen responses were useable. Table 2 survey results show that forty-two of the responses were by male customers and seventy-four of the responses were by female customers. Table 2 survey results also show that customer ages ranged from less than 18 years to greater than 55 years.

Table 2: Customer characteristics

|	Gender	
	Frequency	**Percent**
Male	42	36.2
Female	74	63.8
Total	116	100
	Age	
	Frequency	**Percent**
Below 18	6	5.2
18-24	54	46.5
25-34	50	43.1
35-44	4	3.4
45-54	1	0.9
55 and over	1	0.9
Total	116	100

4. DATA ANALYSIS

Confirmatory factor analysis was performed on the survey results to establish reliability and validity. The reliability indicator α values were all between 0.9127 and 0.9797. The reliability indicator α values values were all greater than 0.7, the reliability indicator α value acceptance level [17]. The results showed that the survey questions were all reliable. The convergent validity factor loading β values were all greater than 0.5. The results showed that the survey questions were related to each other. The discriminant validity factor loading β values were all greater than 0.5 for their factors and less than 0.5 for other factors. The results showed that all of the survey questions could be used to determine the desired information.

5. RESULTS

SPSS 12.0 was used to complete a multiple regression analysis of the survey results. The expanded model, with β values, for all customers (n = 116) is

shown in Fig. 2. In the expandcd model, expertise (β = -0.223, *p* < .024), involvement (β = 0.602, *p* < .000), and rapport (β = -0.270, *p* < .006) all had significant effects on perceived eWOM credibility. The results supported hypotheses H1, H2, and H3. Credibility had a significant effect on eWOM acceptance (β = 0.680, *p* < .000). The result supported hypothesis H4. eWOM acceptance had a significant effect on intent to purchase (β = 0.666, *p* < .000). The result supported hypothesis H5.
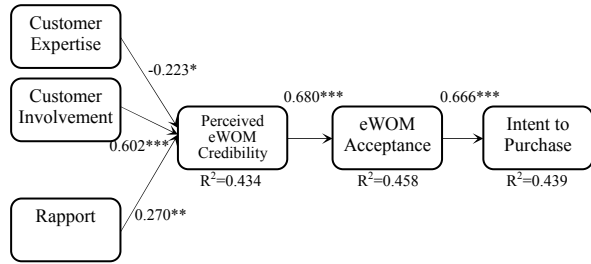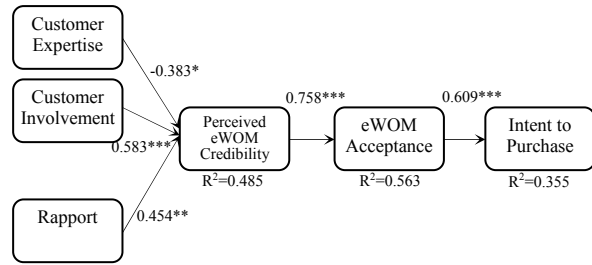

n=116; * *p* < .05, ** *p* < .01, *** *p* < .001
Figure 2: Expanded model (All customers)

Expanded models were also created for male customers (n = 74) and female customers (n = 42). The expanded model for male customers (n = 74) is shown in Figure 3. The expanded model for female customers (n = 42) is shown in Figure 4. In the expanded model for male customers, involvement (β = 0.656, p < .000) had the greatest effect on perceived eWOM credibility. Expertise (β = -0.203, p < .141) and rapport (β = 0.182, p < .170) did not have significant effects on perceived eWOM credibility. In the expanded model for female customers, involvement (β = 0.583, p < .000) had the greatest effect on perceived eWOM credibility. Expertise (β = -0.383, p < .017) and rapport (β = 0.454, p < .006) also had significant effects on perceived eWOM credibility.

The results show that gender had a significant effect on perceived eWOM credibility. In the expanded model for male customers, involvement was the only factor that had a significant effect on perceived eWOM credibility. The results supported hypotheses H2, H4, and H5. In the expanded model for female customers, expertise, involvement, and rapport all had a significant effect on perceived eWOM credibility. The results supported bypotheses H1, H2, H3, H4, and H5.
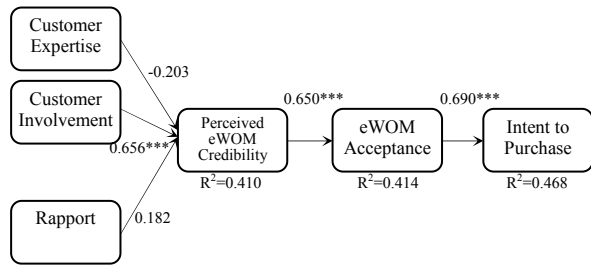
n = 74; * *p* < .05, ** *p* < .01, *** *p* < .001
Figure 3: Expanded model (Male customers)

n = 42; * *p* < .05, ** *p* < .01, *** *p* < .001
Figure 4: Expanded model (Female customers)

6. CONCLUSIONS

This study investigates social factors, personal attributes, and cultural factors that can affect use and acceptance of eWOM. The study shows that gender differences affect perceived eWOM credibility, use and acceptance of eWOM, and purchasing decisions. The study shows that males and females develop trust in different ways from online consumer reviews. The study shows that involvement has the most significant effect on perceived eWOM credibility. The results show that customers that are more involved with a product are more likely to accept and use positive consumer reviews.

Previous studies showed that female customers generally use the internet to give and receive social support [10]. Study results confirmed the finding. Female customers that had more rapport on social networks (β = 0.454, p < .006) put a greater emphasis on eWOM credibility than male customers (β = 0.182, p < .170). Previous studies showed that men are more pragmatic during the purchasing process; women are more emotional during the purchasing process [8]. Study results confirmed the finding. Expertise (β = -0.203, p < .141) did not have a significant effect on eWOM credibility for male customers; expertise (β = -0.383, p < .017) did have a significant effect on eWOM credibility for female customers.

Study results showed that perceived eWOM credibility had a significant effect on acceptance and use of eWOM for both male customers and female customers. Study results showed that perceived eWOM credibility had a greater effect on acceptance and use of eWOM for female customers (β = 0.758, R2 = 0.563) than for male customers (β = 0.650, R2 = 0.414). Study results showed that female customers are more likely to use credible eWOM to make purchasing decisions than male customers.

Study results showed that eWOM acceptance had a significant effect on intent to purchase for both male customers and female customers. However, eWOM acceptance had a smaller effect on intent to purchase for female customers (β = 0.609, R2 = 0.355) than for male customers (β = 0.690, R2 = 0.468). Study results showed that female customers may perceive more risk when shopping online than male customers

[9]. As a result, they may be more reluctant to make purchasing decisions than male customers.

The study created an expanded Elaboration Likelihood Model (ELM) that considers expertise, involvement, rapport, perceived eWOM credibility, eWOM acceptance, and intent to purchase. The expanded model also considers the effects of gender differences on intent to purchase. Study results showed that gender differences did have a significant effect on eWOM credibility, eWOM acceptance, and intent to purchase. Study results showed that expertise and rapport have significant effects on eWOM credibility for female customers. In addition, study results showed that perceived eWOM credibility had a significant effect on eWOM acceptance and intent to purchase. Study results showed that gender-based social sciences research can be applied to virtual communities and e-commerce transactions.

Study results show that companies can use consumer reviews by female customers to increase rapport, perceived eWOM creditability, and intent to purchase for other female customers. Study results also show that companies can provide more online product information to increase the balance between actual product information and consumer reviews. Study results also show that increased expertise and involvement leads to increased eWOM credibility, eWOM acceptance, and intent to purchase. As a result, study results show that companies can provide more online product information to increase expertise and involvement, to increase eWOM credibility, eWOM acceptance, and intent to purchase, in particular, for female customers.

7. LIMITATIONS

The expanded models used in this study had several limitations. Online surveys were used to collect model data. Therefore, the models were susceptible to self-selection bias. Survey respondents were asked to consider their most recent experiences when reading online consumer reviews. Therefore, the models were not derived from consistent controlled eWOM data for each respondent. The models did not consider the moderating effects of gender differences due to the small sample sizes. As a result, the models did not provide strong evidence that gender differences had effects on eWOM credibility, eWOM acceptance, and intent to purchase. Finally, the models only considered one type of product. Future work is needed to verify the study results for other types of products.

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網路口碑對消費者購買意願之影響：性別差異觀點

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摘要

消費者在購物前可以在網路上獲得各式各樣的線上口碑，以協助他們做出購買決策。而消費者過去的經驗可以幫助他們判斷網路口碑的可信度，以及進一步決定購買與否。本研究採用推敲可能性模式作為理論基礎，探討消費者的專業度、涉入度、以及與口碑提供者的認同度，如何影響消費者對於網路口碑的信任、與後續的口碑採納和購買意願。另外，本研究亦探討了性別對於購買決策過程當中的影響。在研究結果中顯示，消費者對商品的涉入程度是影響其後續購物決策過程中最重要的一項因素，而男性與女性的決策模式也的確呈現出性別差異。