The Effect of Electronic Word-of-Mouth in Social Media toward Consumer Purchase Decision with Brand Image as Moderating Variable

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Abstract
Social media has made it possible for users to exchange information and discuss their opinions and experiences about products or services through online on their social media platform with their peers. This kind of communication is called as electronic word-of-mouth (e-WOM) where the information can be spread faster and has the potential for greater impact on consumers purchase decision. Therefore, the aim of this research is to know the effect of e-WOM (including quality and quantity of e-WOM as well as sender’s expertise) in social media on consumers’ purchase decisions moderated by brand image. The research methodology used for this study is a case study with survey research method. Convenience sampling technique derived from non-probability sampling techniques are used for sample selection. The sample of this research is 175, from people who have purchased and used Etude House product. Statistical software SPSS and AMOS is used to analyze the data. The findings in this area will help Etude House and other marketers to reach out its potential customers and align their marketing effort in efficient way by pay attention on the marketing policies about eWOM. The limitations of the research is some respondents not read and answer the question clearly and made it not represent their exact perception.

Keywords
Electronic word-of-mouth; Brand Image; Social Media; Purchase Decision

INTRODUCTION
Today, consumers can discuss and exchange their opinion about the product and online, because of the emergence of internet and Web 2.0. These systems allow consumers discuss product information’s online or electronic word-of-mouth (e-WOM) in their social media platform including of buddies, family, classmates and other associates (Sharifpour, et al., 2016).
Since people nowadays tend to use social media to purchase products by online they could not see the products directly, smell or even try it as would be possible in the official stores, so the consumers’ valuation about the products must be from the information and reviews provided online or reviews from the previous consumers (Lin, et al., 2013). This is the reason why social media websites are considered to be very appropriate platforms for e-WOM (Canhoto and Clark, 2013). E-WOM becomes a “venue” or a very important place for consumers to give their opinions and considered to be more effective than WOM because of its broader level of accessibility than WOM traditional offline media (Jalilvand and Samiei, 2012).
The fact that word of mouth communication is done with media which is interactive and "live" as within the internet, WOM could generate a very strong influence in the mind of consumers’ perception and brand image also their consideration of a product, so all of these factors eventually will effect consumers’ decision to purchase (Gunawan, et al., 2016).
To develop previous researches, this research will analyze the effect of electronic word-of-mouth in social media and the influence to purchase decision on Etude House Korean beauty product with brand image as moderating variable. According to the results of an online survey by Jajakpendapat.net to 497 respondents in Indonesia revealed that 71.17% respondents in Indonesia revealed that 71.17% respondents claimed to have purchased and used the Etude House product.
The fact that these Korean beauty products never do such a massive marketing strategy or advertisement, yet the Indonesian
consumer still reach the information about these Korean beauty products and choose to buy Etude House product instead of other Korean beauty product.

This research will analyze the effect of electronic word-of-mouth (including quality and quantity of eWOM as well as sender’s expertise) toward consumers purchase decision on Etude House through social media with brand image as moderating variable.

LITERATURE REVIEW AND HYPOTHESES

Purchase Decision
Purchase decision is a cognitive process of selecting a course of action from among multiple alternatives done by consumers in order to do a potential market activity before, during, and after the purchase of a product or service (Altekar, et al., 2014). Peter and Olson (2010) argued that purchase decision is an integrated process which is being undertaken to combined knowledge in order to evaluate two or more alternatives and choose one of them, so that the purchase decision can be defined as the determination of the choice by the consumer toward two or more alternative choice to fulfill their needs.

Purchase Intention
Purchase intention defined as someone's intention to buy a particular brand which they choose themselves after going through various evaluations (Laroche et al., 1996). While Assael (2004) argues, purchase intention is a tendency of a consumer to buy and take action associated with the purchase that appears in response to the assessment of an object. Similar to the above opinion, according to Kotler (2012) consumer behavior occurs when consumers stimulated by external factors and ultimately lead to decision purchases based on personal characteristics and retrieval processes decision.

Brand Image
Kotler (2012) explained that brand image is a set of beliefs, ideas, and impressions that a person possesses towards a brand. Therefore the attitude and actions of consumers against a brand is determined by the brand image. Kotler also adding that brand image is a requirement of a strong brand. The brand must have a high reputation, unique, known by many people, trustworthy, credible and deliver best services in order to generate a good impression in consumers' mind.

Electronic Word-of-Mouth
Hennig-Thurau (2004) explained, Electronic Word of Mouth (e-WOM) is a form of marketing communication that contains positive or negative statements made by potential customers, customers or former customers about a product or company available to many people or institutions through internet media. This new form of online communication is eventually identical to traditional word of mouth also considered as the development of traditional WOM in a virtual setting (Yeap et al., 2014). According to Lin et al. (2013), in measuring the influence of Electronic Word of Mouth (e-WOM) using the following dimensions including e-WOM quality, e-WOM quantity, and sender's expertise.

E-WOM Quality
E-WOM quality refers to the power of persuasive comments embedded within message information (Bhattacherjee, 2006). Information quality that received by the consumer could determine their willingness to purchase and if some criteria and requirement meet their expectations and needs as a result it will affecting the purchase decision of the consumer (Cheung, 2008).

E-WOM Quantity
E-WOM quantity refers to the total posted number of comments (Cheung and Thadani, 2010). To determine whether the product is popular and favored is by looking at the amount of online comments, it is the reflection of the products performance (Chevalier and Mayzlin, 2003). According to Lin et al., (2013) consumers also need a recommendation and advices to amplify their assurance when shopping in order to reducing feelings of making mistakes or risks. Particularly, consumers considered that the more reviews or comments reflect the popularity of a product.

Sender's Expertise
Sender’s expertise defined as a reliableness of information gained among consumers, because the expertise of the senders is an individuals that consist of an insight or knowledge against certain products which provide credible and reliable information (Wang et al., 2015).
Recommendations also advise from sender's expertise will entice users to adopt information and make a decision to buy. It also shown that the sender's expertise positively influence the receiver's search extent (Lin et al., 2013).

METHODS
Type of research is causal quantitative research with survey method using questionnaires for 175 respondents who ever made purchases on Etude House Korean beauty product. The measurement scale used in this study is Likert scale type. The answer of each instrument using Likert scale with 7 scales have gradations from strongly positive to strongly negative.

Figure 1. Research Model

H1: eWOM quality has a positive effect on consumer purchase intention.
H2: eWOM quantity has a positive effect on consumer purchase intention.
H3: Sender's expertise has a positive effect on consumer purchase intention.
H4: Brand image has moderating effect between eWOM quality and consumer purchase intention.
H5: Brand image has moderating effect between eWOM quantity and consumer purchase intention.
H6: Brand image has moderating effect between sender's expertise and consumer purchase intention.
H7: Consumer purchase intention has a positive effect on consumer purchase decision.

RESULTS AND DISCUSSION
As shown in the Table 1, the result of validity and reliability test is done using discriminate analysis factor. Table 1 shows that loading factor value of each indicator of eWOM quality, eWOM quantity, sender's expertise, brand image, purchase intention, purchase decision, first interaction, second interaction as well as third interaction variable are greater than the critical value (0.500). Therefore, all indicators of these variables are valid and it can be used as data collection instrument of this research.

Table 1. Validity and Reliability Test

| Construct | Indicators | Factor loading | CR  |
|-----------|------------|----------------|-----|
| eWOM Quality | x1 | 0.904 | 0.987 |
| | x2 | 0.922 |
| | x3 | 0.941 |
| | x4 | 0.936 |
| | x5 | 0.930 |
| | x6 | 0.947 |
| eWOM Quantity | x7 | 0.925 | 0.974 |
| | x8 | 0.929 |
| | x9 | 0.935 |
| Senders' Expertise | x10 | 0.913 | 0.982 |
| | x11 | 0.927 |
| | x12 | 0.937 |
| | x13 | 0.918 |
| | x14 | 0.917 |
| Brand Image | x15 | 0.649 | 0.758 |
| | x16 | 0.619 |
| | x17 | 0.607 |
| Purchase Intention | x18 | 0.878 | 0.950 |
| | x19 | 0.771 |
| | x20 | 0.873 |
| | x21 | 0.874 |
| Purchase Decision | x22 | 0.889 | 0.947 |
| | x23 | 0.775 |
| | x24 | 0.808 |
| | x25 | 0.894 |
| First Interaction | x26 | 0.852 | 0.831 |
| Second Interaction | x27 | 0.822 | 0.791 |
| Third Interaction | x28 | 0.866 | 0.848 |

It also can be seen that the reliability values of eWOM quality variable (0.987), eWOM quantity (0.974), sender’s expertise (0.982), brand image (0.758), purchase intention (0.950), purchase decision (0.947), first interaction (0.831), second interaction (0.791) and third interaction variable (0.848) are greater than the critical value of 0.700. Therefore, the construct of these variables are reliable.

The Goodness of Fit Test
The adequacy of the model fit is determined by several goodness of fit statistic, including Chi-square, The Minimum Sample of Discrepancy Function with Degree of Freedom (CMIN/DF), Root Mean Square Error of Approximation (RMSEA), Adjusted Goodness of Fit Index (AGFI), Goodness of-
Fit Index (GFI) and Comparative Fit Index (CFI), with the result summary can be seen in Table 2.

Table 2. Goodness of Fit Test

| Indices          | Cut of Value | Results | Category |
|------------------|--------------|---------|----------|
| X²-Chi-Square    | < 221.438    | 2,170.829 | Marginal |
| Probability      | > 0.05       | 0.000   | Marginal |
| CMIN/DF          | < 2.00       | 6.461   | Marginal |
| GFI              | > 0.90       | 0.768   | Marginal |
| AGFI             | > 0.90       | 0.878   | Marginal |
| TLI              | > 0.95       | 0.846   | Marginal |
| CFI              | > 0.95       | 0.886   | Marginal |
| RMSEA            | < 0.08       | 0.077   | Good     |

The result summary can be seen in Table 2 shows the result of goodness fitting indexes for the structure model and provides a reasonably good fit for the data 2,170.829 is greater than chi-square table value with degree of freedom n = 175 and α = 0.01 of 221.438. Hence, chi-square statistic value within study is accepted in a marginal category because of it produces a probability value of 0.000 is less than α (0.05).

Hypotheses Testing

Based on the confidence level of 95% (α = 0.05) and degree of freedom (n - k) with one tailed test, it known the t table value is 1.660. From the result of Structural Equation Modeling (SEM) analysis shown in table 3, it is obtained the CR value of eWOM quality (2.702), eWOM quantity (5.434), sender’s expertise (8.363) are greater than than t table value (1.660) all have a significant effect on consumer purchase intention, supporting H1, H2, and H3. Besides, brand image do not have a significant effect between both eWOM quality and consumer purchase intention. As well as the relationship between eWOM quantity and consumer purchase intention.

CONCLUSION

The research shows eWOM quality, eWOM quantity, as well as sender’s expertise has a positive and significant effect on purchase intention. It means, the better the quality and quantity eWOM as well as sender’s expertise in social media could bring more positive perception on consumers’ mind, and will lead them to purchase intention. Moreover, purchase intention has positive effect on purchase decision. It means, the higher intention of consumer in purchasing product, it will build a positive impact towards consumers decision to purchase. Hence, the higher level of purchase intention, followed by the increasing of consumer purchase decision. Meanwhile, brand image shown to have a significant effect on moderating the relationship between sender’s expertise and purchase intention. The result of assessment with brand image as moderating variable in the effect of eWOM quality (1.166) and quantity (1.639) are considered to have no significant effect on purchase intention.
LIMITATION AND FURTHER RESEARCH
This study still has a limitation which difficult to be avoided, which is there are several respondents who did not read the question clearly because of their mobility during the process of answering questions, so some of the collected answers are not exactly represent to their perception.

Researcher suggested to expand research models, and combine more factors to examine consumers purchase intention and decision. It would be interesting to investigate the effect of ewom on consumer decision for more brands and other product categories such as fashion sectors or other areas including political candidates, tourism sectors or travel destinations. Besides, for future research should involve another indicator variable such as negative ewom to analyze the effect on consumer purchase decision.

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