Relationship and impact of e-WOM and brand image towards purchase intention of smartphone?

Irwan Shahrinaz 1,*, Jati kasuma 2, Yusman Yacob 3, Dayang Hummida Abang Abdul Rahman 4
Ahmad Faisal Mahdi 4

1Postgraduate Student, Faculty of Business Management, Universiti Teknologi Mara Sarawak
2Senior Lecturer, Faculty of Business Management, Universiti Teknologi Mara Sarawak
3Lecturer, Malaysian Cooperative College, Kuching, Sarawak
4Lecturer, Faculty of Business Management, Universiti Teknologi Mara Sarawak

Abstract: The purpose of this study is to investigate the purchase intention of students in Kota Samarahan and its association with electronic word of mouth and brand image. Also, this study aims to identify which of the independent variables (electronic word of mouth and brand image) provide more impact toward purchase intention. The data set is collected through self-administered questionnaire and conveniently collected using non-probability random sampling method. A sample of 380 was collected from Kota Samarahan, Sarawak, Malaysia. The findings revealed that there is a significant relationship between brand image and purchase intention but an opposite for electronic word of mouth. Based on the results, it can be said that brand image provide more impact toward purchase intention compared to electronic word of mouth. This study is more important for marketers to understand the consumer's smart phone purchase intention to be more competitive. This study explores the contribution of interpersonal influence and brand image on purchase intention in smart phone industry. In addition, research showed that e-WOM has no direct effect on purchase intention. As compared to other previous studies carried out, the result is unique as most studies show that e-WOM has a strong direct effect on purchase intention.

Key words: e-WOM; Brand image; Purchase intention; Smart phone; Kota Samarahan

1. Introduction

Smartphone industry belongs in between the software publishers and computer system design industry of which two of the most dynamic industries in the world (Blery, 2014) and its evolution is closely linked to the development of new technologies. In addition to this technological revolution, more and more consumer are exposed to the usage of internet regardless the purpose of it. Some use it for entertainment while other uses it to increase productivity. Despite all that, some group of consumers' uses internet as a form of reference by taking other peoples' opinions as the base of their offline purchase decisions through data acquired online (Chatterjee, 2001).

Internet had presented us with the revolution of information technology that had affect how information flow today compared to the old days of no internet (Hamill, 1997). With internet now widely available, the marketing communications had improve a lot with more versatile and highly customizable tools like e-mail and short-messaging-system (SMS), and also personal selling direct-marketing channels of door-to-door visits and telemarketing (Danaher and Rossiter, 2011). To better understand the functions and importance of electronic word-of-mouth, we must first understand the basic structures that once combined together will create this electronic word of mouth (e-WOM).

As the name defined itself, electronic word-of-mouth is a combination of electronics and word-of-mouth. Word of mouth (WOM), or viva voce, is the passing of information from person to person. It is also distinct from the study of morality, which can be defined as thought and believes (Zainoren et al., 2015). Word-of-mouth has been recognized as one of the most influential resources of information transmission. Advances in information technology and the emergence of online social network sites have changed the way information is transmitted. This phenomenon impacts consumers as this easily accessible information could greatly affect the consumption decision.

Many industries had placed the issues of branding as their primary capital. A brand that is strong, able to increase customers’ trust in the product or service purchased and enabling them to better visualize and understand intangible factors (Jalilvand and Samiei, 2012). A brand image has the ability to influence company’s future profit and long-term cash flow by enhancing customer’s willingness to pay premium prices, merger and acquisition decision making, stock prices, sustainable competitive advantage and marketing success (Yoo and Donthu, 2001).
According to (Aydin and Ozer, 2005), consumer based their images of brand based on their experiences, and perceived service quality had been the function of these experiences. Because of that, customer perception regarding service quality is proven to have direct effect on brand image. However, after sales service that is an intangible could not be evaluated before customer experience the consumption; therefore purchasing product and services that are intangible provide higher risk and this had lead customer to depend more on interpersonal influence of e-WOM (Lewis and Chambers, 2000; Litvin et al., 2008). Thus, this study was conducted to identify the relationship between e-WOM and brand image towards purchase intention of smart phone among students and which one affect purchase intention the most.

2. Literature review

2.1. Purchase intention

To understand reason for consumer purchase smart phone, it is necessary to begin by looking at two basic behavior theories called Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB). The TRA was developed by Ajzen and Fishbein (1980) followed by TPB developed by Ajzen I. (1991). Both theories explain how a person carries out a certain behavior. The main factor in these theories is the individual's intention to perform a given behavior. As mentioned by Ajzen (1991), intentions are assumed to capture to motivational factors that influence a behavior, they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior”. Later he makes further emphasis that “when people have the stronger intention to engage in the behavior, they will more likely to perform the behavior” (Ajzen, 1991).

Purchase intention could be also define as the decision to act or psychological action that shows an individual’s behavior according to the product (Samin et al., 2012). Based on the TRA, there are two bases which determine a person’s behavioral intention, and the first is attitude toward behavior and second is subjective norm. Ajzen (1991) defines attitude toward behavior as “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question”. If a person believes that positive outcome will be mostly achieved, that person will hold favorable attitude towards performing it and vice versa (Suddin et al., 2009). Also, Ajzen (1991) refers subjective norms as “the perceived social pressure to perform or not to perform the behavior”. However, TRA failed to explain the reason for is some cases, a person that holds a very favorable attitude towards performing behavior as well as perceives very strong social pressure to perform it; yet the person still have low or no intention to carry out the behavior.

Due to that, the TPB was created by Ajzen in 1991. TPB model mentioned that an individual's behavioral intention is a function with three fundamental components. Those components are attitude towards the behavior, subjective norms and perceived behavioral control. Those scenarios that could not be explained by TRA can be explained by TPB. TPB explained that in some scenario, people hold a great favorable attitude towards performing the behavior along with strong perceived social pressure to carry out the behavior but people still did not do it. This is because; people perceived obstacle or difficulty in performing the behavior. The perception of having low capacity to carry out the behavior lowers a person’s behavioral intention and thus carrying out the behavioral seemed impossible. This is called a perceived behavioral control.

Consumer purchase intention was constructed based on several factors namely consumer’s attitude, consumer’s assessment and external factors (Ajzen and Fishbein, 1980). The possibility of consumer to buy a product can be measured by purchase intention as the higher the purchase intention is, the higher the willingness of consumer to buy a product (Schiffman and Kanuk, 2000). As presented by (Kasuma, 2012) in a conceptual framework study, before making any final decision – customer constantly search for information regarding any company or services. As more consumer today are more educated in term of information search, many refer to online searches and published sources as the medium of gathering information about any company, products and services.

“Purchase intention indicates that consumer will follow their experience, preference and external environment to collect information, evaluate alternative, and make purchase decision” (Schiffman and Kanuk, 2000). A study carried out by Zhang et al. (2004) investigate the direct effects of store image and service quality on brand image and purchase intention for a private label brand and revealed that there is a positive relationship of purchase intention being influenced by store image. This shows that external factors have influence on purchase intention. Another study carried out by Shukla, (2010) found that the communication between person-to-person or word-of-mouth can be effective in influencing purchase intention. As WOM can be considered as an external factor, the study also support that there are positive relationship between external factors and purchase intention. This means, WOM have positive impact on purchase intention.

2.2. e-WOM

Today is the age of modern technology where information is being shared everywhere and this resulted in consumer to use internet more often in order to seek out information about a particular product in interest or a profile of some company which will then causing the emergence of e-WOM (Jalilvand and Samiei, 2012). Electronic word-of-mouth (e-WOM) communication is any positive or
negative statement made by potential, actual, or former consumers about a product or company, which is made available to a multitude of people and institutions via the Internet (Hauser, 2000).

In a research carried out by Hauser, (2004) with the use of 2,000 online consumer as samples, the results shows that consumer desire for social interactions, concerns for other consumers, and the potential to enhance their own self-worth is the primary factors leading consumer towards e-WOM behavior. Furthermore, it is also suggested that firms may need to develop different strategies for encouraging positive e-WOM behavior among the consumer that uses their product (Hauser, 2004). Anderson and Eugene, (1998) prove that managers could obtain competitive advantage upon competitors through gaining knowledge regarding what consumer needs and wants.

Another research conducted by Cheung, Lee, and Rabjohn, (2008) suggested that companies should actively get involved in some major online communities (for example, cnet.com) by providing relevant and complete information about the company that will lead to greater information adoption so that consumer will become more clearer regarding the company and this will leads to a positive e-WOM among consumer. Since online review had become one of the most popular way for consumer to obtain information, this is one of the most efficient ways for company to increase their brand awareness and build respectable reputation (Wu, 2014). Also in the article written by Arenas-Gaitan, (2013) from the point of view of management it is important for travel industry leaders to promote actions that reaffirm individuals’ social position by providing them with the opportunity to share their participation in tourist activities and other services with their social networks. This will then help companies to achieve positive e-WOM communication from clients who shared their experiences to their social network contacts (Arenas-Gaitan et al., 2013).

The benefits of e-WOM excel during time when purchase decision could not be made due to lack of information and awareness on a product or brand which cause consumer to seek out information on the internet. Thus making e-WOM messages an important source of information about product or service quality (Chevalier and Mayzlin, 2006). Moreover, when purchasing products or services, the risk of uncertainty can be effectively reduce with this kind of message, thus furthering the influence on decision-making and purchase intention (Chatterjee, 2001).

2.3. Brand image

The brand image (or sometimes brand knowledge or brand description) is defined as any information related to the brand within the consumer's memory (Keller, 1993) or in other word the associations and beliefs that the consumer has towards a certain brand. The creation and development of brand had been markedly increased in investment by firms for the last few decades. "Positioning the brand and creating brand awareness of the intended product involve a great deal of planning and execution of advertising campaigns that will assist customers in recognizing the brand and creating brand loyalty", (Kasuma, 2012).

With the intention of enhancing target groups ability to link a set of associations with brand image, firms had created a method of communication in a form of a brand. Brand equity can be conceptualizes as “a set of brand and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s consumers” (Jalilvand and Samiei, 2012).

A thesis written by Lim, (2009) examined brand extension within a tourist’s destination context. The destination preferences was said to be influenced by the image of consumer-based brand equity. He then further added that this relationship further extends to products that are associated with the destination. He also mentioned that there are a positive relationship between images of destination and the preference for product associated with a destination brand (Lim, 2009). This clearly shows that the brand image has influence on consumer reference in a product. This statement was also supported by Petrauskaite (2014) where he mentioned that the purchase decision can be stimulated by knowledge of a brand and most consumer are more likely to rely on the brand image that are familiar to them.

Advertising, word-of-mouth, celebrities and media are some of the tools used to create brand image. Consumer are more likely felt to be in a part of cultural environment as well as certain groups when the brand that they are associated with contains specific meaning. Brand is differed from the other brands and consumer can easily recognize them. With this, consumers are willing to pay premium price for branded items and also encourage the spread of loyalty towards a brand among the consumer’s closest group of people such as family members, friends and social (Petrauskaite, 2014).

Brand image consists of attributes and benefits offered by a brand in order to distinguish it from other competitors (Webster and Keller, 2004). Attributes is a descriptive feature of a brand that consumer perceived the brand has and what is involved with its purchase or consumption. The benefits of brand image is the personal value that consumer attach to the brand attributes. This is what consumers think the brand can do for them (Keller, 1993).

2.4. Smartphone

A mobile phone with an advance mobile operating system is called a smart phone (Nusca, 2009). This item combines the features of cell phone with some other popular mobile devices features like personal digital assistant (PDA), global positioning
system (GPS), touch screen interface, camera, internet connection, web browsing, motion sensors and some other major and minor addition. However, a smart phone will not be smart if it does not have the operating system (OS) that will help it. Some of the major operating systems available today are Android, iOS (apple product), Microsoft (Windows phone) and some other minor operating system like Firefox OS, Sailfish OS, Ubuntu-Touch and of course the once famous brand the BlackBerry (pcmag.com, 2015).

3. Methodology

3.1. Research design and framework

The study is primarily an exploratory research. In this research, the researcher uses a questionnaire as the major instrument for gathering data. A questionnaire is chosen as the main technique to collect data in this research because it is self-administered and is simple to use (Fig. 1).

![Brand Image, e-WOM, Purchase Intention](image)

*Fig. 1: Adopted from [Jalilvand and Samiei, 2012]*

3.2. Data collection and analyses

Data for the study is collected from the respondents by using a structured questionnaire that is distributed by hand to the respondents in the Kota Samarahan area. Data that is collected, including facts, knowledge, opinion, intention, and motives, are generally categorized into two main classes, primary and secondary data. Descriptive method is used to describe behavioral data in general and some inferential analysis is performed to understand the relationship among variables. All primary data collected from respondents in this study is processed using the Statistical Packages for Social Science (SPSS) version 22 software for interpretation and analysis. G-power analysis software 3.1.9.2 is used to determine the sample size of this study. Therefore, by using G-power analysis software 3.1.9.2, effect size of f square 0.15, α error prob 0.05, power Gf 0.8 with number of 2 tested predictors, therefore 68 respondents is the minimum sampling for this study. Judgmental sampling method is used for data collection. A pilot test was also conducted to ensure the questionnaire was well designed and to measure consistency. Likert scale from range 1 to 5 to assess respondents' level of agreement.

The use of SPSS requires that the data collected to be numerically coded. All data from the questionnaire is analyzed one by one starting from the demographic profile to all variables. The author has analyzed the frequency distribution of respondents' demographic profiles, as well as conducting reliability analysis on dimensions and items, validity analysis, regression analysis and mean analysis. Descriptive statistics such as mean and standard deviation are generated to provide an overview of the data.

Frequency distribution is used to scrutinize the factors influencing intention to purchase smart phone among students in Kota Samarahan, and also the demographic profile. The standardized multiple-regression analysis is used to examine the linear relationship between the exploratory/independent variables (e-WOM, brand image) and the criterion/dependent variable (purchase intention). Correlation coefficient test and observation of significant levels are done to check the strength of the linear relationships between the 2 types of variables. Cronbach’s alpha coefficient is used to determine the items’ reliability and internal consistency (Malhotra, 2007).

4. Data analyses and findings

4.1. Respondent's profile

A total of 500 questionnaires were distributed and 380 are usable. Out of the 380 respondents in the study, 307 were females and 73 were males. There were 80.8 percent and 19.2 percent respectively. In terms of age, 91.6 percent of respondents were below 25 years old whereas the other 8.4 percent were 26 years old and above. 51.3 percent respondents were from UiTM and the remaining 48.7 percent were from Unimas. 75.8 percent of respondents were Malay followed by Iban with 18.4 percent, Melanau with 2.6 percent and Chinese with 3.2 percent. Most respondents were single with 91.9 percent and the remaining 8.9 percent were married.

4.2. Correlation analyses

4.2.1. Research objective 1: To determine the relationship of e-WOM and brand image towards purchase intention of smart phone.

Two separated analysis was carried out in order to identify the precise results for each independent variable. The first analysis includes the correlation between e-WOM and purchase intention. The second analysis is between brand image and purchase intention (Table 1).

| Table 1: Correlation test between e-WOM and purchase intention |
|-----------------------------|------------------|
|                            | Purchase Intention |
| e-WOM                      | Pearson Correlation | Sig (2-tailed) |
|                            | .077              | .136           |
|                            | 380               | **Correlation is significant at 0.01 level (2-tailed)** |
The objective of this study is to determine the relationship between e-WOM and purchase intention of smart phone among students in Kota Samarahan was answered as the result shows that purchase intention of student is not affected by e-WOM. Based on Table 1, e-WOM and purchase intention has a negative and insignificant relationship (p=0.136) with regards to students in Kota Samarahan. Based on the findings, correlation is not significant at the 0.01 level (2-tailed). This result conforms to the study carried out by Zheng X (2008) where the empirical study revealed that the influence of eWOM information on consumer purchase decision is insignificant. He explained that by comparing between fast-depreciating product and slow-depreciating products, different kind of product have different kind of level influenced by e-WOM. Therefore, the effect of e-WOM on fast-depreciating product like smart phone is insignificant (Table 2).

Based on the Table 2, it has proved that brand image and purchase intention of smart phone among students in Kota Samarahan has a positive relationship. The result shows that there is a positive relationship between these two variables (p<0.01). This means that the positive influence from brand image will leads to positive purchase intention of smart phone among student in Kota Samarahan. This result is consistent with the study carried out by Shwu-Lng, W.and L. Chen-Lien, (2009), where it says that major components of core-brand image are awareness and preference of the brand. These two components have a direct impact on core-brand image and are positively associated with purchase attitude. Thus, this finding answered one of the research objectives which are to determine the relationship between brand image and purchase intention.

4.2.2. Research objective 2: To identify which factors has more impact towards purchase intention of smart phone among students in Kota Samarahan (Table 3)

The r² value of 0.456 explains that 45.6 percent of changes in the dependent variable value (purchase intention) can be explained by the independent variables included in the regression equation (e-WOM and brand image). This means that the remaining 54.4 percent of r² can be explained by other factors that are not discussed in this study. Referring to a study carried out by Hsiang-tai, (2008), there are several factors that influence the decision to purchase fresh potatoes in the market of New England. They manage to purpose eight key factors affecting purchase decision of consumer; appearance, price, size, region, type, product inspection certificate, previous experience and money back guaranteed if not satisfying. Based on their research, those key factors may be implemented within this research as future research (Table 4).

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.676**</td>
<td>.456</td>
<td>.453</td>
<td>.45684</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Brand image, e-WOM

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficient</th>
<th>Standardized Coefficient</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(constant)</td>
<td>1.583</td>
<td>.195</td>
<td>8.103</td>
</tr>
<tr>
<td></td>
<td>e-WOM</td>
<td>-.151</td>
<td>.043</td>
<td>-.140</td>
</tr>
<tr>
<td></td>
<td>Brand image</td>
<td>.748</td>
<td>.042</td>
<td>.705</td>
</tr>
</tbody>
</table>

From Table 4, The Beta column under standard coefficient shows that the highest beta value of 0.705 for Brand image which is at 0.001 significant levels. As compared to the other independent variable (e-WOM) with the Beta result of -0.140, it is clearly shown that brand image with 0.705 has more impact towards purchase intention. Thus answering the research Objective 2 to identify which independent variables has more impact towards purchase intention.

5. Conclusions and Recommendations

The starting point of this paper is the increasing popularity of consumers’ tendency to share their experience and views regarding product or brand online (e.g. Facebook.com) along with their tendency of reflecting the image of themselves through brands. In addition, practical experience and previous research suggested that consumer loves to read and write pleasant and unpleasant experiences.

From a marketers’ perspective, the question that came by is what effects does e-WOM and brand image might have on dependent variables that are relevant in marketing. The dependent variables chosen in this study is purchase intention. This research explores the contribution of interpersonal
influence and brand image on purchase intention in smart phone industry. In addition, research showed that e-WOM has no direct effect on purchase intention.

As compared to other previous studies carried out, the result of this study is unique as most studies showed that e-WOM has a strong direct effect on purchase intention (Jalilvand and Samiei, 2012). The results of this research have several important implications. With the finding that e-WOM communication does not cause purchase intention is particularly important to smart phone manufacturers. Even though the availability of internet had given consumers to ability to read online recommendations for the product that they are interested in, still it is proven that consumers rely more on brand image rather that e-WOM to initiate purchase intention. Therefore, managers could focus more on enhancing brand image rather than initiating point-of-sales activities (Jalilvand and Samiei, 2012). Based on that, managers could improve brand image through increasing product variety, enhancing product quality, offering value-for-money products and also providing after sales services. These will greatly increase the purchase intention of products.

References


