THE EFFECT OF CONSUMER CONFUSION PRONENESS ON WORD OF MOUTH, TRUST, AND CUSTOMER SATISFACTION

Malisa Rosadi
Universitas Atma Jaya Yogyakarta

Fandy Tjiptono
Universitas Atma Jaya Yogyakarta
Email: fandy.tjiptono@gmail.com

Abstract

High-tech products (such as smartphones, notebooks, and tablets) have been characterized as being increasingly similar between brands, having too many slightly different choices, and providing complex information. In buying these products, many consumers find it difficult to differentiate between brands, evaluate over alternatives, and make a good purchase decision. Such situation is known as consumer confusion phenomenon. Previous studies have revealed that consumer confusion is becoming a problem for both consumers and marketers. However, the topic still needs further examination, especially in the context of a developing country.

The present study aims to examine consumers' general tendency to become confused and its effect on word of mouth, trust and consumer satisfaction. The product context is smartphones, while the sample consists of 150 university students who had experiences in using or buying smartphones. Nine research hypotheses were tested using multiple regression analyses. The results indicate that only two of the three consumer confusion dimensions (i.e. similarity confusion and overload confusion) have significant negative impacts on word of mouth, trust and consumer satisfaction. The other dimension (i.e. ambiguity confusion) was found to have insignificant impacts on the three dependent variables.

Keywords: Consumer confusion, word of mouth, trust, consumer satisfaction, smartphone.

1. INTRODUCTION

Consumer confusion is a relatively new concept in marketing research (Matzler and Waiguny, 2005). It is not yet considered in well-established consumer behavior textbooks (Schweizer, Kotouc and Wagner, 2006) and the topic itself remains under researched (Walsh, Hennig-Thurau and Mitchell, 2007).

The increasing product proliferation, the growing adoption of product imitation strategies, and the increasing amounts of marketplace information make purchasing products, particularly high-tech products, very confusing (Leek and Kun, 2006). Many consumers are trapped in the so-called "tyranny of choice", where more choices make consumers suffering from making decisions efficiently (Schweizer, Kotouc and Wagner, 2006, p. 184). Reports of consumer confusion cases can be found in many countries (e.g. the US, the UK, Germany, France, Netherlands, China, South Korea, and India) and across several product categories (such as telecommunications, watches, washing powder, fashion, and private labels) (Walsh, Hennig-Thurau and Mitchell, 2007; Walsh and Mitchell, 2010).

Nevertheless, as noted by Leek and Kun (2006), the majority of consumer confusion research has focused on Western cultures, while only a few studies have examined the phenomenon in Eastern cultures. They argue that it is important to conduct a study in an Eastern culture to provide further understanding and validate the existing

findings. This research call provides a strong justification to the present study that aims to investigate the issue in the Indonesian context, particularly the Indonesian smartphone market.

The Indonesian smartphone market is a logical choice for examining consumer confusion. The Indonesian huge number of population (about 237 million people in 2010) and high economic growth (6.0% in 2010) has attracted many multinational companies to enter the country (Safra and Aguilar-Cauz, 2011). According to a report, in 2011 there were more than 240 million cellular phone subscribers in Indonesia (Firman and Sukirno, 2012), where smartphone usage and ownership have grown rapidly (Suling, 20 July 2010). For example, BlackBerry users increased from 1 million people in 2010 to 5 million people in 2011 and were predicted to reach 9.7 million people in 2015 (www.suarapembaruan.com, 3 January 2012).

The current study aims to replicate with some modifications Walsh and Mitchell's study (2010) which investigated the effect of consumer confusion proneness on word of mouth, trust, and customer satisfaction. Three dimensions of consumer confusion (i.e. similarity confusion, overload confusion and ambiguity confusion) were adopted since they have been validated in previous research (e.g. Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Walsh and Mitchell, 2010). Specifically, the research question is: "how does consumer confusion proneness affect word of mouth, trust and customer satisfaction?"

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Defining consumer confusion

There have been several definitions of consumer confusion in the consumer behavior literature. Foxman, Berger and Cote (1992, p. 125), for instance, define consumer confusion as "*one or more errors in inferential processing that lead a consumer to unknowingly form inaccurate beliefs about the attributes or performance of a less-known brand based on a more familiar brand's attributes or performance*." This definition highlights that errors can happen in all stages of information processing. Similar emphasis was also found in another definition provided by Turnbull, Leek and Ying (2000, p. 145) who define it as "*consumer failure to develop a correct interpretation of various facets of a product/service, during the information processing procedure. As a result this creates misunderstanding or misinterpretation of the market.*"

Schweizer, Kotouc and Wagner (2006, p. 185) define consumer confusion as "*a result of a temporary exceedance of an individual capacity threshold for absorbing and processing environment stimuli*". In other words, consumer confusion is believed to be an emotional state where consumers find it difficult to select and interpret stimuli, which in turn may lead to lower decision quality.

Furthermore, based on an extensive review of 52 definitions, Lakotta and Jacob (2008, p. 3) offer their own definition, where consumer confusion is defined as "*difficulties for a decision-maker to compare, evaluate and rank options for a decision to be made."* They state that the confusion is caused by product similarity, product complexity, marketplace information similarity, marketplace information complexity, and/or consumers' cognitive limitations.

In summary, all these definitions can be integrated into the concept of consumer confusion proneness formulated by Walsh, Hennig-Thurau and Mitchell (2007, p. 699). They view it as "*a consumers' general tolerance for processing similarity, overload or ambiguity information, which negatively affects consumers' information processing and decision-making abilities*". This conceptualization is adopted in the current study.

2.2. Consumer confusion dimensions

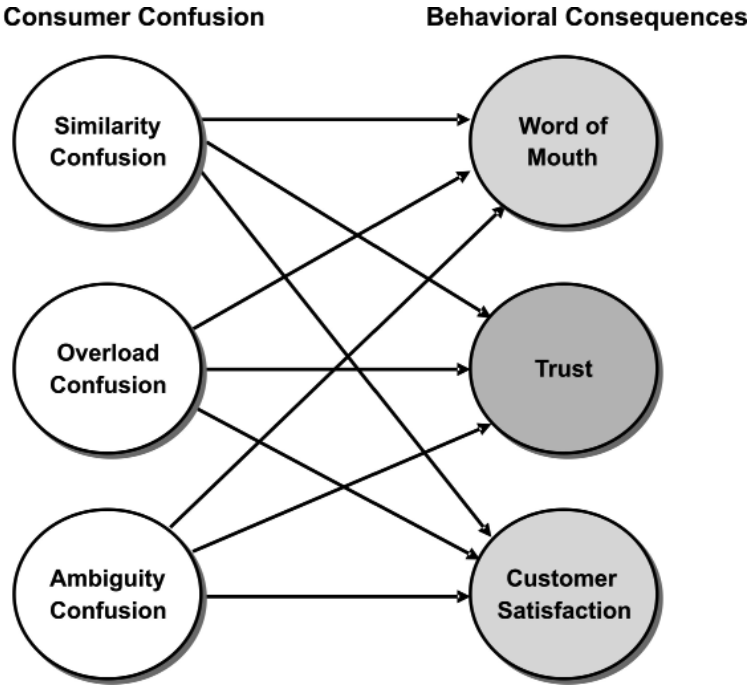
Efforts have been made to operationalize the consumer confusion concept. Schweizer, Kotouc and Wagner (2006), for example, developed a 25-item and six-factor model to measure consumer confusion. They named the six factors as follows: stimuli variety, stimuli novelty, stimuli complexity, stimuli conflict, stimuli comfort, and stimuli reliability. However, to the best of our knowledge, their scale has not yet been further validated.

Another measure was provided by Walsh, Hennig-Thurau and Mitchell (2007). In their study of 264 German shoppers, these three marketing professors identified and validated three dimensions of consumer confusion

proneness, i.e. similarity confusion, overload confusion, and ambiguity confusion. In their subsequent study, Walsh and Mitchell (2010) further validated the scale and found that consumer confusion proneness has a significant impact on word of mouth, trust, and customer satisfaction. The following sub-section discusses the three dimensions and their impacts as the basis for the current study's hypothesis development.

2.3. Hypotheses development

Since the present research is a modified replication of Walsh and Mitchell's study (2010), the following hypotheses were adapted from the original study. Figure 1 summarizes the three dimensions of consumer confusion proneness and their behavioral consequences.



Source: Adapted from Walsh and Mitchell (2010)

Figure 1. *Consumer Confusion Proneness and Its Behavioral Consequences*

Similarity confusion

Similarity confusion is "*consumers' propensity to think that different products in a product category are visually and functionally similar*" (Walsh, Hennig-Thurau and Mitchell, 2007, p. 702). This kind of confusion may occur due to decreasing inter-brand differences, increasing number of parity products and increasing number of 'me-too' products. Many manufacturers desperately seek for competitive advantages by developing minor differentiations and/or imitating market leaders' products or brands. As a result, consumers face an overchoice of similar products. The similarity can be in terms of the style and color of the name or packaging (Foxman, Berger and Cote, 1992).

In their study, Walsh and Mitchell (2010) postulated an insignificant impact of similarity confusion on word of mouth; however, their results indicated that the impact was significant negative. They offered two explanations for this finding. First, when consumers perceived products as being similar, they are more reluctant to offer word of mouth because the situation gives them less to talk about to their friends and family members. Second, similarity-prone consumers may find it embarrassing to admit their mistakes and inability to differentiate between brands. Therefore, hypothesis 1 can be formulated as follows:

H_1. *Similarity confusion proneness has a significant negative impact on consumer word of mouth.*

The attribution theory explains how people determine whether the cause for an action or an event resulted from something internal or external to him/herself or object in question (Schiffman and Kanuk, 2010). In general, people tend to credit him/herself for success (internal attribution) and blame others for product failure (external attribution) (Peter and Olson, 2010). Therefore, when they get confused with too many similar products within a product category, they will blame the company. The trust they have in the products and their manufacturers will lessen. In their research, Walsh and Mitchell (2010) indicated that similarity confusion has a negative impact on trust. Hence, hypothesis 2 can be stated as follows:

H_2. *Similarity confusion proneness has a significant negative impact on consumer trust.*

When consumers find it difficult to choose between brands or products, their overall (or macro) satisfaction will be decreasing. They have to spend more time, energy, and money to collect information, evaluate alternatives, and make decisions. Walsh and Mitchell (2010) found support for the negative impact of similarity confusion proneness on macro customer satisfaction. In line with this, hypothesis 3 can be postulated as follows:

H_3. *Similarity confusion proneness has a significant negative impact on macro satisfaction.*

Overload confusion

Overload confusion is "*consumers' difficulty when confronted with more product information and alternatives than they can process in order to get to know, to compare and to comprehend alternatives*" (Walsh, Hennig-Thurau and Mitchell, 2007, p. 704). When consumers are in such situation, they may engage in more communication with reference group members (e.g. family members, friends, and colleagues) to clarify some of the information they have and/or to work through some of their confusion. Support was found in Walsh and Mitchell's study (2010) that overload-prone consumers involve others in the purchase decision making to help them solve some of their overload confusion. Thus, hypothesis 4 can be stated as follows:

H_4. *Overload confusion proneness has a significant positive impact on consumer word of mouth.*

Information overload is a situation in which a consumer is presented with too much product- or brand-related information (Schiffman and Kanuk, 2010). Consumers may get confused in evaluating alternative brands and/or products. Consistent with external attribution theory, consumers tend to blame the companies for the complexity and difficulty to understand marketplace information provided to them and they will question the companies' motives. It will lead to the decreasing trust in the companies and their products. Despite Walsh and Mitchell's (2010) found no support for the relationship between overload confusion proneness and consumer trust, at least theoretically hypothesis 5 can be formulated as follows:

H_5. *Overload confusion proneness has a significant negative impact on consumer trust.*

Overload confusion makes consumers feel overwhelmed and dissatisfied, or choose not to make a choice at all (Huffman and Kahn, 1998). They may also blame the companies for their inability to process all the information. Walsh and Mitchell (2010) reveal that overload confusion has a negative impact on customer satisfaction because too much information can cause consumer anxiety, frustration, and stress that will lead to dissatisfaction. Consequently, hypothesis 6 can be proposed as follows:

H_6. *Overload confusion proneness has a significant negative impact on macro satisfaction.*

Ambiguity confusion

Ambiguity confusion is "*consumers' tolerance for processing unclear, misleading, or ambiguous products, product-related information or advertisements*" (Walsh, Hennig-Thurau and Mitchell, 2007, p. 705). In an earlier work, Mitchell, Walsh and Yamin (2005) used the term "unclarity confusion" to refer to this type of confusion. In general, ambiguity confusion may arise from four factors: technological complexity, ambiguous information/dubious product claims, conflicting information, and incorrect interpretation (Leek and Kun, 2006).

When consumers face multiple interpretations of product quality from different sources, they can get confused. Such confusion can be even more problematic if the information is conflicting and inconsistent with the consumer's prior beliefs and knowledge. To overcome the confusion, a consumer may seek support or help from important others (such as family members, friends, co-workers, experts, and so forth) to establish which information is more credible. Once they understand the ambiguity or conflicting information, they may share their new knowledge to others which in turn will increase their word of mouth (Walsh, Hennig-Thurau and Mitchell, 2007). In their study, Walsh and Mitchell (2010) found support for a significant positive impact of ambiguity confusion proneness on word of mouth. As a result, hypothesis 7 is formulated as follows:

H_7. *Ambiguity confusion proneness has a significant positive impact on consumer word of mouth.*

Inability to choose among many very similar products with ambiguous information about their differences may cause confusion and frustration which lead to purchase decision delay. Consumers are likely to take time to overcome some of their confusion. In addition to uncertain feeling, in some situations ambiguity is likely to cause consumers to suspect that the companies providing conflicting product information attempt to take advantage of them. As a result, ambiguity-prone consumers may have less trust in the companies and their products. Following the original formulation in Walsh and Mitchell (2010), hypothesis 8 is stated as follows:

H_8. *Ambiguity confusion proneness has a significant negative impact on consumer trust.*

Complex and ambiguous information is likely to cause consumers to be uncertain and anxious as to which information to believe. To reduce the ambiguity, consumers need extra time, efforts and sometimes money to obtain the needed additional information. Such extra processing will result in the reduction of consumers' satisfaction with the companies and products. As argued in Walsh and Mitchell (2010), this reasoning leads to the following hypothesis 9:

H_9. *Ambiguity confusion proneness has a significant negative impact on macro satisfaction.*

3. RESEARCH METHOD

3.1. Research context

A survey using self-administrative questionnaires was conducted to address the research question of interest. The research context of the present study is how consumer confusion proneness affects word of mouth, trust, and customer satisfaction. While most consumer confusion studies have been focused on the Western cultures context (with exceptions of Thailand, South Korea, China, and India), the present study investigates similar issue in the Indonesian context—one of the most populated countries in the world. The specific research procedures were modified and replicated from Walsh and Mitchell (2010) who studied consumer confusion proneness effects in Germany.

Nevertheless, the product context is different from the general unspecified product category investigated in Walsh and Mitchell (2010). The present study focuses on the Indonesian smartphone market. The specific product

was chosen to address to the research call recommended by Walsh, Hennig-Thurau and Mitchell (2007). They suggested a further study to test their consumer confusion proneness in a specific product context.

Another reason is that respondents are more likely to better understand the topic if a specific product (in this case, smartphones) is provided. Mass media has reported that the popularity of smartphones has grown rapidly in Indonesia (see for instance, Suling, 2010; www.suarapembaruan.com 3 January 2012; Firman and Sukirno, 2012). Although there is no generally accepted definition of the term 'smartphone', generally a smartphone is "*a phone that has extra functionality and advanced application so that it is almost like a small computer or more of a mini portable computer*" (www.smartphonebasics.com, accessed on 12 January 2012; see Figure 2 for examples of smartphones). The ever growing features, applications, and operating systems of smartphones may cause consumers to be confused as to which brand to choose. Therefore, it is a relevant and appropriate context for studying consumer confusion.

Source: Sunny (2011)

Figure 2. *Examples of Smartphones*

3.2 Sample and sampling methods

While Walsh and Mitchell (2010) used 355 German shoppers in a major northern German city as their samples, the present study focuses on university students in the Daerah Istimewa Yogyakarta (DIY). Student samples were used because smartphone users in Indonesia are mostly those who aged between 18 to 24 years—university students (Firman, 2010). A combination of convenience sampling and purposive sampling was used to select the sample of university students in DIY in order to examine the hypotheses stated in the present study. The criterion used for the purposive sampling was university students who used and/or owned a smartphone. This resulted in 150 university students participated in the survey.

3.3 Data collection

A structured questionnaire was used as the research instrument in this study. It consists of three parts. The first part was used to identify the respondent profiles in terms of their gender, university, and smartphone ownership.

The second part measuring consumer confusion proneness was adapted from Walsh, Hennig-Thurau and Mitchell's (2007) scale. Respondents were asked to indicate the degree of their agreement with the three similarity confusion proneness statements, four overload confusion proneness statements, and five ambiguous confusion proneness statements on a 5-point Likert scale (ranging from 1 = "strongly disagree" to 5 = "strongly agree"). It is important to note that the questionnaire items were adapted from a general unspecified product category context into the smartphone context. For example, the original statement of "*Products such as CD players or VCR often have so many features that a comparison of different brands is barely possible*" was adjusted to "*Smartphones often have so many features that a comparison of different brands is barely possible*".

In the final section, respondents were asked to evaluate their levels of trust, satisfaction, and word of mouth. These three behavioral consequences of consumer confusion proneness were adapted from Walsh and Mitchell (2010) and consisted of six word of mouth statements, three trust statements, and one satisfaction statement. A 5-point Likert scale (1 = "strongly disagree", 5 = "strongly agree") was used for all statements.

4. ANALYSIS AND DISCUSSION

4.1. Profiles of the respondents

There were 200 questionnaires distributed at four major universities in the Daerah Istimewa Yogyakarta, i.e. Universitas Atma Jaya Yogyakarta (UAJY), Universitas Pembangunan Nasional (UPN), Universitas Sanata Dharma (USD), and Universitas Kristen Duta Wacana (UKDW). However, only 150 of them were returned and complete (a response rate of 75%). These 150 questionnaires were used for the analysis.

Respondent profiles are summarized in Table 1. It can be observed that female and male respondents were almost equal (50.67% and 49.33%, respectively). UAJY students were dominant (59.33%), followed by UPN students (21.33%), UKDW (12%), and USD (7.33%).

It is apparent from Table 1 that all respondents had smartphones. BlackBerry, Nokia, and Samsung were the top three, followed by iPhone, Sony, LG, and other brands. It is slightly different from the five most widely used smartphone brands in Indonesia based on the Nielsen survey (cited in Karina, 2011): Nokia 41%, Blackberry 21%, Samsung 9%, Nexian 7%, and Sony Ericsson 7% (Karina, 2011).

Table 1. *Profiles of Respondents*

Description	Number	Percentage (%)
Gender		
Male	74	49.33
Female	76	50.67
University		
Universitas Atma Jaya Yogyakarta (UAJY)	89	59.33
Universitas Pembangunan Nasional (UPN)	32	21.33
Universitas Sanata Dharma (USD)	11	7.33
Universitas Kristen Duta Wacana (UKDW)	18	12
Smartphone Ownership		
Blackberry	86	57.33
Nokia	21	14
Samsung	20	13.33
iPhone	11	7.33
Sony	5	3.33
LG	4	2.67
Beyond	1	0.67
HTC	1	0.67
Motorola	1	0.67

4.2. Reliability and validity of the multiple-item measures

Reliability and validity tests were conducted using Cronbach's alpha and item-to-total correlations (refer to Table 2). All multiple-item measures had good reliability, with Cronbach's alphas larger than 0.60 (Hair, *et al*., 2009). Similarly, good validity was found for all measurement items, with item-to-total correlations larger than 0.16 ($r\text{-}_{table}$ value for α = 0.05 and degree of freedom = 148). Therefore, it can be concluded that all measures used in the present study are reliable and valid.

Table 2. *Reliability and Validity of the Multiple-Item Measures*

Variable	Item	Cronbach's Alpha	Item-to-Total Correlation	Conclusion
Similarity Confusion Proneness	SC_1	0.772	0.656	Reliable and Valid
	SC_2		0.586	
	SC_3		0.579	
Overload Confusion Proneness	OC_1	0.750	0.521	Reliable and Valid
	OC_2		0.677	
	OC_3		0.499	
	OC_4		0.493	
Ambiguity Confusion Proneness	AC_1	0.627	0.287	Reliable and Valid
	AC_2		0.438	
	AC_3		0.333	
	AC_4		0.433	
	AC_5		0.408	
Word of Mouth	WOM_1	0.830	0.496	Reliable and Valid
	WOM_2		0.678	
	WOM_3		0.592	
	WOM_4		0.586	
	WOM_5		0.628	
	WOM_6		0.636	
Trust	T_1	0.726	0.584	Reliable and Valid
	T_2		0.698	
	T_3		0.388	

Notes: The cut-off rate for Cronbach's alpha is 0.6 (Hair, *et al*., 2009).
$r\text{-}_{table}$ value (α = 0.05 and degree of freedom = 148) is 0.16.
Consumer satisfaction is a single-item measure, so it does not need reliability and validity tests.

4.3 Behavioral effects of consumer confusion proneness

The effects of consumer confusion proneness on word of mouth, trust, and customer satisfaction were examined through three multiple regressions. The three dimensions of consumer confusion proneness (i.e. similarity confusion, overload confusion, and ambiguity confusion) were treated as the independent variables in the three regressions, while each of the behavioural consequences (word of mouth, trust, and customer satisfaction) was used as the dependent variable in each regression, respectively. Table 3 summarizes the multiple regression results.

As predicted by H_1, a significant negative effect was found (β = -0.218, = 0.071). It suggests that high degrees of perceived similarity confusion proneness are associated with low levels of word of mouth, and vice versa. Supporting H_2, the effect of similarity confusion proneness on consumer trust was negative and significant (β = -0.229, = 0.052). Consumer trust in a product and its manufacturer will lessen when consumers perceive a high degree of similarity confusion, and vice versa. Meanwhile, H_3 postulated that similarity confusion proneness has a significant negative impact on macro satisfaction. A significant negative effect was found (β = -0.282, = 0.009). Hence, H_3 is supported.

Table 3. *Behavioral Consequences of Consumer Confusion Proneness Dimensions*

Dependent Variable	Independent Variable	Standardized Beta	t		Adj. R Square	F	
			Value	Sig.		Value	Sig.
Word of mouth	Similarity Confusion	-0.218	-1.820	0.071*	0.233	16.047	.000***
	Overload Confusion	-0.366	-3.192	0.002***			
	Ambiguity Confusion	0.71	0.655	0.514			
Trust	Similarity Confusion	-0.229	-1.956	0.052*	0.269	19.312	.000***
	Overload Confusion	-0.401	-3.583	0.000***			
	Ambiguity Confusion	0.083	0.783	0.435			
Customer Satisfaction	Similarity Confusion	-0.282	-2.650	0.009***	0.395	33.464	.000***
	Overload Confusion	-0.426	-4.187	0.000***			
	Ambiguity Confusion	0.035	0.362	0.718			

Notes: *** significant at α = 0.01
* significant at α = 0.1

The current research has found that overload confusion proneness has a significant negative effect on word of mouth (β = -0.366, = 0.002). However, this contradicts the hypothesized positive impact. As a result, H_4 was not supported.

Consistent with H_5, overload confusion proneness was found to have a significant negative impact on consumer trust (β = -0.401, = 0.000). Support was also found for H_6, in which higher overload confusion proneness was associated with lower macro satisfaction (β = -0.426, = 0.000), and vice versa.

However, no significant effects of ambiguity confusion proneness on word of mouth (β = 0.71, = 0.514), trust (β = 0.083, = 0.435), and customer satisfaction (β = 0.035, = 0.718) were found. Hence, so H_7, H_8, and H_9 were not supported.

Table 4 presents the summary of hypothesis testing results. Overall, five of the nine hypotheses were supported (i.e. H_1, H_2, H_3, H_5, and H_6).

Table 4. *A Summary of Hypothesis Testing Results*

	Hypothesis	Result
H_1	Similarity confusion proneness has a significant *negative* impact on consumer word of mouth.	Supported
H_2	Similarity confusion proneness has a significant *negative* impact on consumer trust.	Supported
H_3	Similarity confusion proneness has a significant *negative* impact on macro satisfaction.	Supported
H_4	Overload confusion proneness has a significant *positive* impact on consumer word of mouth.	Not Supported
H_5	Overload confusion proneness has a significant *negative* impact on consumer trust.	Supported
H_6	Overload confusion proneness has a significant *negative* impact on macro satisfaction.	Supported
H_7	Ambiguity confusion proneness has a significant *positive* impact on consumer word of mouth.	Not Supported
H_8	Ambiguity confusion proneness has a significant *negative* impact on consumer trust.	Not Supported
H_9	Ambiguity confusion proneness has a significant *negative* impact on macro satisfaction.	Not Supported

4.4. Discussion

Choosing a smartphone might be confusing for many consumers. The rapid technology changes have contributed to the availability of so many smartphone brands with slightly different features, styles, designs, and operating systems. However, the present study found that the average scores of similarity confusion proneness, overload confusion proneness, and ambiguity confusion proneness were 3.11, 3.21 and 3.22 in a 5-point Likert scales, respectively. It may suggest that the degree of consumer confusion proneness among the student samples was close to neutral. It may be the case that even though they were confused when confronted with similar, overload, and/or ambiguous information, they relied on their friends as to which brands and types of smartphones to purchase. Previous study in the area of peer influence has suggested that peer groups are highly influential in young adults' products purchase decisions (Makgosa and Mohube, 2007; Lingga and Tjiptono, 2011).

The present study provided support for five of the nine hypotheses formulated in Walsh and Mitchell (2010). It is found that similarity confusion proneness is negatively associated with word of mouth, trust, and customer satisfaction (H_1, H_2, and H_3 being supported). This finding is in line with Walsh and Mitchell's study (2010). Overload confusion proneness was found to have a negative impact on consumer trust (H_5) and customer satisfaction (H_6).

Nevertheless, the present study failed to support four hypotheses. Ambiguity confusion proneness had no effect on word of mouth (H_7), trust (H_8), and customer satisfaction (H_9). It raises a question about the appropriateness of this dimension of consumer confusion proneness. In their study, Walsh and Mitchell (2010) found no support for the impact of ambiguity confusion proneness on customer satisfaction (H_9), and an unexpected positive impact on trust (H_8). Further research is needed to clarify this issue.

The present study also found that overload confusion proneness had a negative impact (instead of the predicted positive effect) on word of mouth. It may suggest that overload-prone consumers did not involve others in their smartphone buying decision. Hence H_4 was not supported.

Furthermore, a comparison between the research findings of and the present research is presented in Table 5. Both studies found support for the behavioural consequences of similarity confusion proneness. The negative impact of overload confusion proneness on customer satisfaction was also consistent in both researches. The two studies also found insignificant effect of ambiguity confusion proneness on customer satisfaction.

However, both studies provided different results for the effects of overload confusion proneness and ambiguity confusion proneness on word of mouth and trust. A plausible explanation for these differences may lie in the different samples (non-student samples in Walsh and Mitchell's study (2010) versus student samples in the present research), different product contexts (general and unspecified product category versus smartphones), and different cultures (German low context culture versus Indonesian high context culture).

Table 5. *A Comparison between Previous and Present Research Findings*

Hypothesized Effects		Previous Research (Walsh and Mitchell, 2010)		Present Research	
		Results	**Effects**	**Results**	**Effects**
H_1	*Negative* effect of similarity confusion proneness on word of mouth	Significant	Negative	Significant	Negative
H_2	*Negative* effect of similarity confusion proneness on trust	Significant	Negative	Significant	Negative
H_3	*Negative* effect of similarity confusion proneness on customer satisfaction	Significant	Negative	Significant	Negative
H_4	*Positive* effect of overload confusion proneness on word of mouth	Significant	Positive	Significant	Negative
H_5	*Negative* effect of overload confusion proneness on trust	Insignificant	-----	Significant	Negative
H_6	*Negative* effect of overload confusion proneness on customer satisfaction	Significant	Negative	Significant	Negative
H_7	*Positive* effect of ambiguity confusion proneness on word of mouth	Significant	Positive	Insignificant	-----
H_8	*Negative* effect of ambiguity confusion proneness on trust	Significant	Positive	Insignificant	-----
H_9	*Negative* effect of ambiguity confusion proneness on customer satisfaction	Insignificant	-----	Insignificant	-----

5. CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

5.1. Conclusion

The present study has addressed the issue of how consumer confusion proneness affects word of mouth, trust, and customer satisfaction in the Indonesian smartphone market. Nine hypotheses were tested, but only five of them were supported. Overall findings indicate that similarity confusion proneness has a negative effect on word of mouth, trust, and customer satisfaction. Overload confusion proneness was also found to be negatively associated with word of mouth, trust, and customer satisfaction. However, it is found that ambiguity confusion proneness has no effect on the three behavioral consequences (word of mouth, trust, and customer satisfaction).

This study contributes to the understanding of the behavioral consequences of the three dimensions of consumer confusion proneness in the Indonesian smartphone market. It has answered the research call put forward by Leek and Kun (2006), Walsh, Hennig-Thurau and Mitchell (2007), and Walsh and Mitchell (2010) who recommended similar studies in a different cultural context.

5.2. Limitations and Future Research

Despite its contribution, the present study has some limitations. First, the results may have limited generalizability due to the usage of student samples and non-probability sampling methods. Second, the geographical scope (only in Daerah Istimewa Yogyakarta) and the product context (smartphones) may also limit its generalizability. Third, the current study provides only a partial support for the nine hypotheses formulated in Walsh and Mitchell's study (2010). An issue of interest is that one of the three dimensions of consumer confusion proneness (i.e. ambiguity confusion proneness) was found to be an insignificant predictor of word of mouth, trust, and customer satisfaction.

Furthermore, it is both interesting and important to investigate whether different research contexts (i.e., cultural settings, product choices, and sample composition) might contribute to divergent empirical findings. Therefore, more studies are needed to enrich the understanding of the dimensions of consumer confusion proneness and their behavioral consequences.

REFERENCES

"Definition of a Smartphone", *PDX Web Pross,* www.smartphonebasics.com, accessed on 12 January 2012.

"RIM: 2015 Pengguna BlackBerry di Indonesia Capai 9,7 Juta", 3 January 2012, http://www.suarapembaruan.com , accessed on 9 April 2012.

Firman, M. and Sukirno (2012), "Pelanggan Seluler RI 2011 Tembus 240 Juta", http://www.vivanews.com, accessed on 23 February 2012.

Firman, M. (2010), "UPH Aplikasikan Mobile Campus", *Vivanews*, 5 August 2011, http://teknologi.vivanews.com, accessed on 10 October 2011.

Foxman, E.R., Berger, P.W., and Cote, J.A. (1992), "Consumer Brand Confusion: A Conceptual Framework", *Psychology and Marketing*, 9 (March-April), pp. 123-140.

Hair, J.F., et al. (2009), *Multivariate Data Analysis*, 7th Edition, Pearson Education, Inc., Upper Saddle River, NJ.

Huffman, C. and Kahn, B. E. (1998), "Variety for Sale: Mass Customization or Mass Confusion?", *Journal of Retailing*, 74 (4), pp. 491-513.

Karina, S. (2011), "Nokia Masih Kuasai 41% Pasar Smartphone di Indonesia", *Okezone,* 15 November 2011, www.okezone.com, accessed on 4 January 2012.

Lakotta, J. and Jacob, F. (2008), "Customer Confusion in Service-to-Business Markets—Foundations and First Empirical Results", *ESCP-EAP Working Paper*, 34 (January), pp. 1-21.

Leek, S. and Kun, D., (2006), "Consumer Confusion in the Chinese Personal Computer Market", *Journal of Product and Brand Management*, 15 (3), pp.184-193.

Lingga, T.P. and Tjiptono, F. (2011), "Peer Influence and Product Conspicuousness Among Youths", *Kinerja*, 14 (4), pp. 297-311.

Makgosa, R. and Mohube, K. (2007), "Peer Influence on Young Adults' Products Purchase Decisions," *African Journal of Business Management*, June, pp. 183-194.

Matzler, K. and Waiguny, M. (2005), "Consequences of Customer Confusion in Online Hotel Booking", *Information and Communication Technologies in Tourism*, 10, pp. 306-317.

Mitchell, V.W., G. Walsh and M. Yamin (2005), "Towards a Conceptual Model of Consumer Confusion", *Advances in Consumer Research*, 32 (1), pp. 143-150.

Peter, J.P. and Olson, J.C. (2010), *Consumer Behavior*, 9th edition, Mc-Graw Hill/Irwin, New York.

Safra, J.E. and Aguilar-Cauz, J. (2011), *Time Almanac 2012*, Encyclopaedia Britannica, Inc., Chicago.

Schiffman, L.G and Kanuk, L.L., (2010), *Consumer Behavior,* 10th Edition, Pearson Education, Inc., Upper Saddle River, NJ.

Schweizer, M., Kotouc, A.J., and Wagner, T. (2006), "Scale Development for Consumer Confusion", *Advances in Consumer Research*, 33, pp. 184-190.

Sekaran, U., and Bougie, R., (2010), *Research Methods for Business: A Skill Building Approach,* Fifth Edition, John Wiley & Sons, Ltd., West Sussex, UK.

Suling, Y., (2010), "Cheap and Complete", *The Jakarta Post*, 20 July 2010, http://www.thejakartapost.com/, accessed on 15 September 2011.

Sunny, J. (2011), "Top 10 Best SmartPhones", www.top10ofall.com, accessed on 12 January 2012.

Turnbull, P.W., Leek, S., and Ying, G. (2000), "Customer Confusion: The Mobile Phone Market", *Journal of Marketing Management*, 16 (January-April), pp. 143-163.

Walsh, G., and Mitchell, V.W., (2010), "The Effect of Consumer Confusion Proneness on Word of Mouth, Trust, and Customer Satisfaction", *European Journal of Marketing*, 44 (6), pp. 838-859.

Walsh, G., Hennig-Thurau, T., and Mitchell, V.W., (2007), "Consumer Confusion Proneness: Scale Development, Validation, and Application", *Journal of Marketing Management*, 23 (7-8), pp. 697-721.