

PERCEIVED VALUE AND CUSTOMER SATISFACTION OF SMARTPHONE BRAND AMONG YOUTH: THE MODERATING EFFECT OF GENDER

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ABSTRACT

Advances in technology have made mobile phones develop into smartphones. It is undeniable that the smartphone has brought many benefits to users and has become an indispensable part of our daily work. This situation reflects the consumer nowadays hard to ignore the value of the smartphone. Hence, smartphone developers need to understand the value of smartphones, especially for immature groups such as youth in Malaysia. This is because values that are perceived as positive will drive positive results or vice versa. Unfortunately, far too little attention being stressed on this issue. Therefore, the current study is aimed to examine the relationship between perceived value and customer satisfaction in the context of youth smartphone users. Besides, the study also inspects the moderating effect of gender on the relationship between perceived value and customer satisfaction. In terms of data collection, a complete set of data received from 306 respondents via snowball sampling and analyzed by Statistical Package for the Social Sciences. The multiple regressions analysis result revealed all the five dimensions of perceived value have a positive influence on customer satisfaction. However, the social value was confirmed has a negative and significant effect on customer satisfaction. The moderated regression analysis results indicated that male is satisfied when they perceived high monetary value of the smartphone meanwhile female is satisfied with the smartphone when they perceived high emotional value acquired from using the brand

compared to male. Based on the findings, the study suggests that marketers and smartphone manufacturers need to take suitable marketing approaches for a different group of consumers (i.e. gender) to achieve customer satisfaction. It is also crucial to understand the values obtained by consumers from using the smartphone brand. Knowing this may assist managers to develop a strong brand in the marketplace.

INTRODUCTION

Currently, there are more smartphone subscribers than fixed-line subscribers in the world due to the extraordinary growth beyond any degree (Rice & Katz, 2003) and at the present stage, mobile phone is considered as the most extensive household apparatus ever created (Mokhlis & Yaakop, 2012). Practically, smartphone users go everywhere with their mobile phones which make smartphones as their “sixth sense” which helps them in their daily activities. One of the main reasons for this dependency is smartphone is the importance of socializing. Socializing is a key gratification for users (Ji & Fu, 2013) and in this context can be seen as valuable when communicating with colleagues, friends, family or in business. This perceived value could be further looking at from the perspective of functional value, social value, emotional value, monetary value, convenience value and symbolic value. Since these values are important, smartphone companies are battling to control the market share through the promotion of one’s brand to consumers. One of the main targets for such promotions is young consumers or modern youth.

The smartphone is also becoming more and more important to all categories walk of life and is regarded as having the highest adoption rates among technology in the modern history of the world (Comer & Wikle, 2008). Constant changes and upgrading of mobile technologies have provided consumers with many choices to select and choose their smartphone based

on their usage pattern and needs. Grant and O’Donohoe (2007) noted while marketers are excited by the reach and possibilities of personalization offered through the mobile phone, however, young people associated commercial appropriation of this medium with irritation, intrusion, and mistrust. The importance of mobile phones to younger segments of the population has certainly been recognised by marketers, who view this as a communication channel with huge potential (, 2007).

LITERATURE REVIEW

Perceived Value

In the technology adoption studies, the perceived value is important to understand consumer behaviour (Yu, Lee, Ha, & Zo, 2017). In the past studies, researchers have been conceptualized perceived value based on unidimensional approach (Zeithaml, 1988) and multidimensional construct (Sheth, Newman, & Gross, 1991; Woodruff, 1997; Sweeney & Soutar, 2001). For instance, researchers (e.g. Caruana & Fenech, 2005; Howat & Assaker, 2013; Chen & Tsai, 2008) have been conceptualized perceived value based on unidimensional approach adopted from Zeithaml’s (1988) conceptualization of value, which is emphasized on price monetary value. Zeithaml (1988) defined perceived value as “the customer’s overall assessment of the utility of a product based on their perceptions of what is received and what is given” (pg. 14). Helander and Ulkuniemi (2012) stated that customer perceived value always been emphasized as sacrifices and benefits from customer’s subjective evaluation which involved in a business transaction. Traditionally, the unidimensional approach of perceived value has been operationalized or measured based on a reasonable price, acceptable, value for money and economical (Sweeney & Soutar, 2001).

Sweeney and Soutar (2001) conceptualized perceived value construct based on four dimensions, namely functional value (performance/quality), price/value for money, emotional value and social value. Sheth et al. (1991), on the other hand, proposed five types of consumption values that influence consumer choice behaviour. They are functional value, social value, emotional value, epistemic value and conditional value. Both Sheth et al. (1991) and Sweeney and Soutar's (2001) approaches shared similar views in terms of the conceptualizations of functional, social and experiential/emotional value constructs. Several researchers have integrated the work of Sweeney and Soutar (2001), and Sheth et al. (1991) consumption values concept (e.g. Pura, 2005; Lin & Huang, 2012; Koller, Floh & Zauner, 2011). For example, Pura (2005) conducted a study in the context of the mobile service industry and conceptualized perceived value construct consisted of six dimensions, i.e. emotional value, social value, conditional value, monetary value, convenience value and epistemic value.

Based upon the above view and discussions of perceived value, the current study adapted Sweeney and Soutar's (2001) conceptualization of perceived value and incorporated the dimension of convenience value from Pura's (2005) work. The current study also extends Sweeney and Soutar's (2001) conceptualization of perceived value by distinguishing the concepts of symbolic value and social value. More specifically, the social value in the present study emphasized the need for social approval concept, while symbolic value focuses on the aspect of status, role position and ego identification. This assumption is in line with the study of Bhat and Reddy (1998), who stated that the symbolic construct can be viewed as two-dimensional concepts, one dimension representing the prestige of the brand and the other expressing the user's personality.

In summary, the current study focuses on six dimensions of perceived value namely; functional value, social value, emotional value, monetary value, convenience value, and symbolic value. These perceived values are considered important that need to be further explored in the context of a smartphone, to see whether the aforementioned dimensions will lead to the formation of customer satisfaction. Besides, the moderating effect of gender on the relationship between perceived value and customer satisfaction is also investigated. Each of these dimensions of perceived value will be discussed below.

Functional Value

Sheth et al. (1991) described functional benefits as "the perceived utility acquired from an alternative's capacity for functional, utilitarian or physical performance" (p. 160). Hence, the product values are expected to be high quality, efficient, reliable, practical, easy to use, durable and good performance (Lawson & Balakrishnan, 1998). Similarly, Sweeney and Soutar (2001) defined functional value as the benefits obtained from using the products in term of perceived quality and expected performance. It was noted that functional value appeared to be the key driver of consumer brand choice (Sheth et al., 1991) when the "attribute performances of a technology product are useful, easy to use, and innovative" (Yeh, Wang & Yieh, 2016, p. 248). Deng, Lu, Wei, and Zhang (2010) also described functional value as the practical and technical benefits acquired from using mobile instant messages various functions such as sending messages, voice chatting, sending media files (photo, image, video, audio), browsing news, etc. Furthermore, these researchers have found that functional value has a strong influence on customer satisfaction towards mobile instant messages service in China. This has been supported by Haba, Hassan and Dastane (2017) whereby they indicated that "smartphone can be useful to a consumer when it demonstrates the

satisfaction of consumer by using a particular smartphone" (p. 50).

Emotional Value

The emotional value of the brand represents the perceived utility acquired from the product's ability to stimulate feelings or affective states such as pleasure, excitement, fun, romance, passion, comfort or fear (Sheth et al., 1991; Sweeney & Soutar, 2001). Similarly, Andrews, Drennan, and Russell-Bennett, (2012) defined emotional value as "an alternative acquires emotional value when associated with specific feelings or when precipitating or perpetuating those feelings" (p. 359). Previous scholars have agreed that the role of experiential consumption is crucial in influencing consumers' purchase decisions (Holbrook & Hirschman, 1982; Sheth et al., 1991; Sweeney & Soutar, 2001). For example, researchers have confirmed that emotional value has strongly influence customer satisfaction (e.g. Ariff, Hiew, Zakuan, Ishak, & Ismail, 2012; Deng et al., 2010), behavioural/purchase intention (e.g. Sweeney & Soutar, 2001; Pura, 2005; Ha & Jang, 2010), customer loyalty (Koller et al., 2011) and commitment (Pura, 2005).

Social Value

Social value has been defined as the perceived utility that leads to the association of customer with specific social groups (Sheth et al., 1991). Similarly, Sweeney and Soutar (2001) defined social value as the ability to enhance social self-concept of that particular good or service. According to Sheth et al. (1991), normally social value involved customer choice in the tangible products (e.g. goldsmith, smartphones, and personal computers) and that the products can be shared with others. In the study of mobile instant messages (MIM) context, Deng et al. (2010) referred social value as the benefits that users can feel or acquired when they connected to others by using MIM. Furthermore, the researchers suggested that communication through MIM (e.g., creating

group chats among a circle of friends or relatives and families) will increase the sense of belonging for a certain group as well as families and this benefit may consequently enhance the perceived social value of using a smartphone. Furthermore, Yeh et al. (2016) stated that by sharing the smartphone usage experience, the users can improve their social value in term of consumers' interpersonal interactions.

Monetary Value

Price usually refer to as monetary value (Raji & Zainal, 2017). Sweeney and Soutar (2001) described price/value for money as "the utility derived from the product due to the reduction of its perceived short term and long-term costs" (p. 211). Lim, Widdows and Park (2006) also have the similar view towards economic value (monetary value) where it is related to the perception on the economic benefits received by the consumers and the level of satisfaction in this value could lead to the future decision (e.g. repurchase or recommend the brand). Deng et al. (2010) justified monetary value by the level of satisfactory in term of cost, time and effort in using a specific product or service. Several studies have investigated the influence of price, in terms of value for money, on customer loyalty in the services industry setting. For instance, price (operationalized as monetary value) was shown to have a direct and significant impact on behavioural intention in a location mobile services context (Pura, 2005) and customer loyalty in the context of a dental service (Caruana & Fenech, 2005).

Convenience Value

Pura (2005) described convenience value as the "ease and speed of achieving a task effectively and conveniently" (p. 516). Meanwhile, Haba et al. (2017) indicate that the convenience of the devices can enhance a person's efficiency or performance. More specifically, the researcher suggests that this dimension of perceived value relates to the

accuracy and ease of getting information, time saved and the convenience of searching specific locations at specific times by using the mobile services. Ting, Lim, Patanmacia, Low, and Ker (2011) highlighted that consumer needs to use the smartphone disregards of time and locations. In the meantime, Anderson and Srinivasam (2003) stated that customers expect convenience ways in getting information from the service provider which leads to the lesser cost involved. In the study of touristic location-based services, Neuhofer (2012) found that convenience value has a positive effect on attitude toward location-based services. Also, Pura's (2005) findings showed that convenience value has a significant influence on behavioural intentions to use location mobile services.

Symbolic Value

In the brand management concept, Park, Jaworski, and MacInnis (1986) defined symbolic needs as "those who desire for products to fulfil their internally needs for self-enhancement, role position, group membership, or ego-identification" (p. 136). Several researchers also have noted that consumers may purchase a particular product for reasons other than the functional aspect of the product, but they are often motivated to purchase a product based on symbolic appeal (Gardner & Levy, 1955; Park et al., 1986). Researchers have examined the influence of symbolic values on purchase behaviour (Hsieh, Pan, & Setiono, 2004), customer satisfaction (Liang & Wang, 2004), repurchase intention (Tsai, 2005) and brand preference (Salciuviene, Lee, & Yu, 2007). For example, in a study within the automobile industry, Hsieh et al. (2004) found that symbolic appeal has an impact on brand purchase behaviour. Also, Tsai (2005) found that symbolic values have a direct effect on the repurchase intention of jeans, computers and coffee. A study conducted by Salciuviene et al. (2007) also found that the symbolic benefits of the brand (i.e. status representation, style association, career style representation and

personal style representation) significantly impacted brand preference for laptop computers.

Customer Satisfaction

Most researchers agreed that customer satisfaction is an emotional response construct (Oliver, 1981; Oliver, 1997; Woodruff, 1997; Anderson, Fornell, & Lehmann, 1994). For example, Oliver (1997) described satisfaction as "the consumer's fulfilment response. It is a judgment that a product or service feature or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under or over fulfilment" (p. 13)., Woodruff and Jenkins (1987) conceptualized satisfaction as "a feeling developed from an evaluation of the user experience" (p. 305). All of the aforementioned definitions emphasize the consumer's affective response towards the product and the consumption experience, which is an important aspect of customer satisfaction. With regards to IT products like smartphone, Deng et al. (2010) stated that if the consumer has an overall positive experience in using that particular product, he or she will be satisfied with the product.

Gender

According to Baron and Campbell (2012), gender is a relevant variable in testing the usage of mobile phone. It is an interesting issues and gap to study the moderating effects between independent variables and the dependent variable (Deng et al., 2010). For example, Meyers-Levy and Maheswaran (1991) found out that male consumer like to focus on what they paid, which is monetary value. Meanwhile, Lim and Kumar (2008) stated that female consumers will focus on service quality and enjoyment in using mobile service. Therefore, it is noteworthy to investigate whether male and female have different perceptions of the perceived values and satisfaction towards the smartphone.

Conceptual Framework and Hypothesis

The purpose of this study is to examine the relationship between perceived value and customer satisfaction in the context

of a smartphone. The study also examines the moderating effect of gender on the relationship between perceived value and customer satisfaction. The research framework for this study is illustrated in Figure 1.

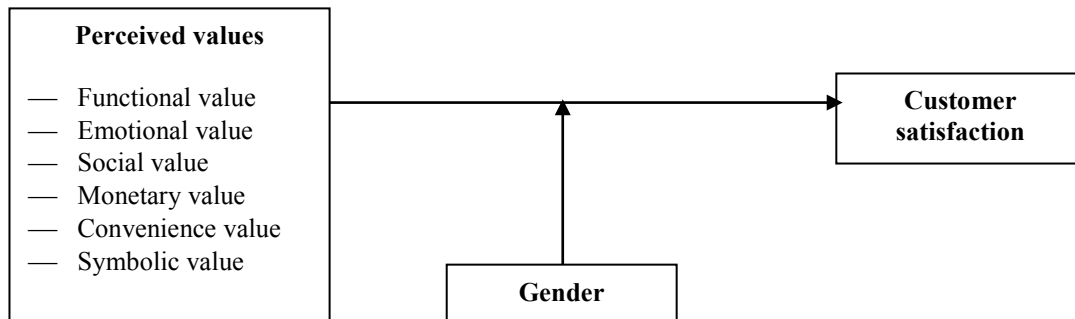


Figure 1 Theoretical framework models

a. The Relationship between Perceived Value and Customer Satisfaction

Tam (2004) mentioned that a high perception of value can result in high customer satisfaction. In Ariff et al. (2012) study, they found that perceived values (i.e. economic value, emotional value and social value) have significant effects on customer satisfaction in mobile phone service. Among these three dimensions of customer perception of values, emotional value is the most important factor that contributes to the formation of customer satisfaction. Lim et al. (2006) studies found that perceived social value does not influence customer satisfaction in the mobile service context. They stated that emotional value generally will affect the customer satisfaction in the service industry. Besides that, as per Lim and Kumar (2008) in their study regarding the age differences between mobile service user’s perceptions, they indicated that economic value has a positive relationship with baby boomer’s satisfaction. Therefore, Hypothesis 1 was drawn as:

H1: There is a positive relationship between perceived value and customer satisfaction.

- H1_a: Functional value has a positive relationship with customer satisfaction.
- H1_b: Emotional value has a positive relationship with customer satisfaction.
- H1_c: Social value has a positive relationship with customer satisfaction.
- H1_d: Monetary value has a positive relationship with customer satisfaction.
- H1_e: Convenience value has a positive relationship with customer satisfaction.
- H1_f: Symbolic value has a positive with customer satisfaction.

a. The Moderating Effect of Gender between Perceived Value and Customer Satisfaction

As mentioned earlier, male and female have different perception toward the attitude. However, there was still a lack of information and study on the moderating effect of gender on the relationship between perceived value and customer satisfaction. Therefore, Hypothesis 2 (H2) for this study was drawn as:

H2: Gender moderates the relationship between perceived value and customer satisfaction.

RESEARCH METHODOLOGY

Sampling and Measurement

The selected target populations for this study were the smartphone users among youth which in between the age of 15 to 40 which was set according to the Malaysian perspective. The Ministry of Youth and Sport stated that Malaysian who is in the age group classification between 15 to 40 years old is considered as a youth. The unit of analysis of this study was smartphone users, as they know better on perceived value factors that increase their satisfaction. Primary data was obtained through self-administered questionnaires survey. The questionnaires were distributed to a target population of smartphone users in the surrounding areas of Kota Kinabalu, Sabah using quota and snowball sampling method. The items used for measuring the functional, emotional and social values were adapted from Sweeney and Soutar (2001), symbolic values measurement was taken from Tsai (2005), the measurement items for monetary value were adopted from Pura (2005) and Alves (2011), convenience value items were adopted from Pura (2005) and Ting et al. (2013) and customer satisfaction measurement items were adapted from Oliver (1981). All of the measurements of the studied constructs are illustrated in Appendices A and B.

Data Analysis

a. Profile of Respondents

More than half of the participants were female (58.80%) and among them, 7.90% were below 20 years old, 59.8% were in the age of 21 to 25, 26 to 30 years old (15.10%), 31 to 35 years old (8.70%) and 36 to 40 years old (8.50%). Most of the respondents possessed the qualification

of Bachelor's degree (56.20%), Master's degree holder was consisted of 17.30% and followed by STPM or College Diploma qualification (19.90%). Majority of respondents are students, which consisted of 52.60%. A total of 29.10% of the respondents work in the private sector, while public sector employees consisted of 9.50%. With regard to brand preferences of smartphones, 29.4 % of the respondents used the Samsung brand followed by 24.2% the Oppo and 15.6% the iPhone. Huawei users were only 5.2%.

a. Factor Analysis of the Studied Constructs

Table 1 and Appendix A show the factor analysis of perceived value. The remaining 27 variables of perceived value produced six factors with Eigenvalues more than one, which explained 72.56% of the total variance. The KMO value was 0.933 and Bartlett Test of sphericity was significant at 0.00. Meanwhile, the communalities of the 27 variables ranged from 0.565 to 0.843, which fulfil the requirement of Hair, Black, Babin, Anderson and Tatham (2010). Overall, all of these six factors are valid in this study. Appendix A demonstrates the factor loadings of the items measuring each of these factors namely: functional value, emotional value, social value, monetary value, symbolic value, and convenience value.

The factor analysis of customer satisfaction produced one factor with eigenvalues of 4.19, which explained 83.90% of the variance (refer to Table 1 and Appendix B). The KMO value was 0.900 and Bartlett's test of sphericity was significant at 0.00. The communalities values of the five variables ranged from 0.804 to 0.886 and factor loadings of the variables were ranged from 0.897 to 0.942.

Table 1 Summary of factor analysis, reliability analysis, means and standard deviations of the study constructs

Constructs	No. of items	KMO	Bartlett's test	Factor Loadings	Eigenvalues	% Variance explained	Cronbach's alpha	Mean	Std. Dev.
Functional value	5	.933	6284.08**	0.647 – 0.938	12.08	43.131	.894	3.99	0.75
Emotional value	6			0.628 – 0.985	2.85	10.174	.916	3.84	0.79
Social value	4			0.722 – 0.948	2.14	7.661	.915	3.33	0.99
Monetary value	5			0.516 – 0.892	1.35	4.83	.859	3.57	0.74
Symbolic value	4			0.789 – 0.915	1.03	3.689	.899	3.27	0.94
Convenience value	3			0.448 - 0.871	.86	3.074	.790	3.63	0.87
Satisfaction	5	.900	1558.65**	0.897 - 0.942	4.19	83.90	.951	3.89	0.88

Note: All items used a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree or 1= very unlikely and 5 = very likely)

a. Reliability Analysis and Descriptive Analysis

The Cronbach’s alpha values for each of the six dimensions of perceived value were ranged from 0.790 to 0.916 and customer satisfaction have a reliability coefficient of 0.951. Table 1 also demonstrates the mean scores for six dimensions of perceived value and customer satisfaction varied from 3.27 to 3.99 and the standard deviation for all of the studied dimensions and construct ranged from 0.74 to 0.99.

b. Correlation Analysis

In Table 2, the results indicate that all of the perceived value dimensions were positively correlated with customer satisfaction. Emotional value ($r = 0.726, p < 0.01$) has the highest correlations value, followed by functional value ($r = 0.675, p < 0.01$), convenience value ($r = 0.577, p < 0.01$), symbolic value ($r = 0.522, p < 0.01$) and monetary value ($r = 0.508, p < 0.01$). For social value, it is found to be moderately and significantly associated with customer satisfaction, which is $r = 0.381, p < 0.01$.

Table 2 Pearson correlation matrix of the study variables

Variables	1	2	3	4	5	6	7
1 Functional value	1						
2 Emotional value	.695**	1					
3 Social value	.352**	.605**	1				
4 Monetary value	.460**	.453**	.335**	1			
5 Symbolic value	.451**	.619**	.704**	.391**	1		
6 Convenience value	.565**	.580**	.459**	.465**	.565**	1	
7 Satisfaction	.675**	.726**	.381**	.508**	.522**	.577**	1

Note: Correlation is significant at the 0.01** level (2-tailed).

c. Hypotheses Testing

In this study, multi regression analysis was used to analyze the relationship between perceived value and customer satisfaction. Results in Table 3 indicated that 63.0% variances in customer satisfaction can be explained by perceived value ($R^2 = 0.630, p < 0.01$). More specifically, five of the dimensions of perceived value have positive influences on customer satisfaction, namely emotional value ($\beta = 0.454, p < 0.01$), functional value ($\beta = 0.222, p < 0.01$), monetary value ($\beta = 0.149, p < 0.01$), symbolic value ($\beta = 0.137, p < 0.01$) and convenience value ($\beta = 0.122, p < 0.01$). However, social value ($\beta = -0.174, p < 0.01$) has a negative and significant effect on customer satisfaction. Therefore, hypothesis $H1_a, H1_b, H1_d, H1_e$ and $H1_f$ are supported. However, $H1_c$ was rejected.

Table 3 Regression analysis of perceived value with customer satisfaction

Dependent variable	Independent variable	Std. Coefficients Beta (β)	t-value
Customer satisfaction	Perceived value:		
	Functional value	.222**	4.222
	Emotional value	.454**	7.608
	Social value	-.174**	-3.294
	Monetary value	.149**	3.563
	Symbolic value	.137**	2.484
	Convenience value	.122**	2.515
	R^2	0.630	
	Adjust R^2	0.623	
	Sig. F	84.871 ($p < 0.01$)	

Note: Significant levels: * $p < 0.05$, t-value = 1.645, ** $p < 0.01$, t-value = 2.333

a. Hierarchical Regression Analysis

Table 4 illustrates the results of moderated regression analysis of gender as a moderator on the relationship between six dimensions of perceived value and customer satisfaction. The R^2 change (0.643, $p < 0.01$) and F change (84.87%, $p < 0.01$) are significant in step 1 indicating a significant relationship between perceived value and customer satisfaction. However, in step 2, the F change found not significant, which illustrated that the moderator is not positively related to customer satisfaction. Finally, when the interaction terms were entered in step 3, the F change was found to be significant. Thus, the results indicate that gender has significantly influenced the effect of perceived value on customer satisfaction. Table 4 indicates that only two interaction terms, which are "gender \times emotional value" and "gender \times monetary value" were significant at $p < 0.01$ levels. However, the rest of the four interaction terms are not significant. Therefore, hypothesis H2 is partially supported.

In order to interpret the moderating effects, it is necessary to display those significant interaction terms graphically. The significant interactions graphs are depicted in Figure 2 and Figure 3. Figure 2 indicates the impact of emotional value on customer satisfaction is greater among female than male users. This finding suggests that female users are more satisfied when they perceived high emotional value when using the smartphone as compared to male users. Based on Figure 3, the graph shows that the perception of the monetary value positively affected customer satisfaction for both male and female groups. However, the impact is greater for male users compare to female users. This means that the male consumer group has greater satisfaction levels when they perceive higher levels of the monetary value of smartphone compared to the female users.

Table 4 Hierarchical regression results of the moderating effect of gender on the relationship between perceived value and customer satisfaction

Dependent variable	Variables	Std. beta step 1	Std. beta step 2	Std. beta step 3
Customer satisfaction	<i>Independent variable</i>			
	Perceived value dimensions			
	Functional value	.222**	.222**	.224**
	Emotional value	.454**	.451**	.567**
	Social value	-.174**	-.174**	-.200**
	Monetary value	.149**	.149**	.057
	Symbolic value	.137**	.138**	.117
	Convenience value	.122**	.122**	.100
	<i>Moderating variable</i>			
	Gender		-.013	-.021
	<i>Interaction terms:</i>			
	Gender × Functional value			.030
	Gender × Emotional value			-.249**
	Gender × Social Value			.057
	Gender × Monetary value			.138**
	Gender × Symbolic Value			.052
	Gender × Convenience value			.058
R^2		.630	.630	.650
Adjusted R^2		.623	.622	.634
R^2 Change		–	.000	.019
F Change		84.871	.126	2.683
Sig. F Change		.000	.723	.015

Note: Significant levels: * $p < 0.05$, ** $p < 0.01$

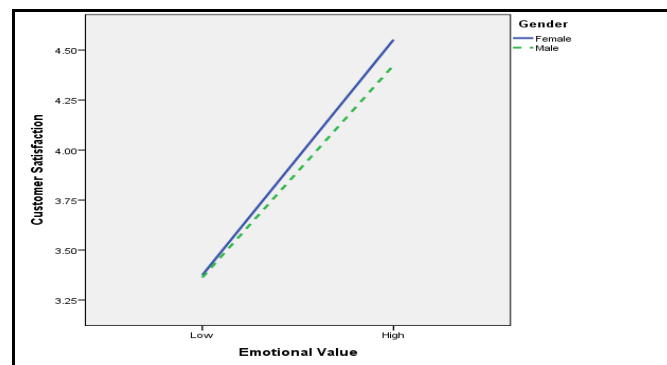


Figure 2 Moderating effect of gender on the relationship between emotional value and customer satisfaction



Figure 3 Moderating effect of gender on the relationship between monetary value and customer satisfaction

DISCUSSION

The discussion of the findings and implications for each of the six dimensions of perceived value (i.e. functional value, emotional value, social value, monetary value, convenience value and symbolic value) will be discussed below.

Results showed that the functional value of the smartphone brand has a strong influence on customer satisfaction. In other words, smartphone users will be satisfied and having loyalty intention toward the brand they choose when they perceive the smartphone brand has high functional value. This finding is in line with the report published by Euromonitor (2012), study whereby the new feature integration and the performance of smartphones can cater the needs for the consumers and create the intention for upgrading the features of their phone to a smartphone. Other than report, this result also analogous to the previous studies like the study conducted on toothpaste as a convenience product (Razak, Nirwanto, & Triatmanto, 2016), the role of customer value types for banking industry (Sahi, Gupta, & Lonial, 2018), and the role of customer value creation in the context of Ghanaian telecommunication operators (Mahmoud, Hinson, & Anim, 2018). This means that consumer will only purchase the smartphone's brand which associated with good functions, smartphone's function is useful and helpful in their daily routines, fulfilling the consumer need, convenient to use, and reliable brand. All these elements will help the smartphone producer to launch a high-quality smartphone.

The role of emotional value in purchase decision making have been strongly supported by previous researchers such as Holbrook and Hirschman (1982), Sheth et al. (1991) and Sweeney and Soutar (2001). Emotional value in this study relates to consumer perception of the value obtained from a brand as a result of its ability to stimulate feelings or affective states such as feeling delighted, feeling good

and pleasurable. The results of this study are consistent with Lim et al. (2006), who found out that emotional value also have a positive influence on satisfaction in the context of mobile services. Same goes to the finding from Deng et al. (2010) in the context of mobile instant messages (MIM), the consumer also perceived emotional value towards the satisfaction of the service. In the case of a smartphone, the current study adopted six elements to be associated with the emotional value which includes enjoyable, interesting, pleasurable, stylish, feeling good, and delighted to form the customer satisfaction on smartphone's brand being purchased. Based on the findings, the emotional value was confirmed as the strongest element to form the customer satisfaction of the smartphone brand among youth in Malaysia specifically. This is happening because youth is situated at the period of transition from adolescence to early adulthood, the young people seek to establish their personas and form behaviour patterns, attitudes, and values, hence their consumption patterns (Grant & Waite, 2003; Mokhlis, 2009). Obviously, there are lacking in previous experiences can become their referral in buying decision-making process. Therefore, youth only can rely on the emotional value portrayed by the brand.

Surprisingly in this study, the result discovered that social value has a negative and significant impact on customer satisfaction. This finding is contradicted with Pura's (2005) in the mobile service context. The researcher found that social values have no significant commitment. However, Yen (2012) claimed that social value has positively influence customer loyalty in the context of mobile services. The findings were consistent with Yang and Jolly (2009)'s and Lee, Lee, Kim, and Kim (2002)'s view whereby users can socialize and communicate with other users by using a smartphone and this consequently leads to satisfaction. Plausible reasons why social value has a negative and significant relationship with customer satisfaction in this

study is due to the rapid technology change of smartphone nowadays. Fast-changing of smartphone technology enables users to keep on consuming or changing their smartphone as this decreased the purchasing power among youth. Another possible reason for the finding is most of the respondents among youth have different priorities in terms of the intention of purchasing smartphone devices. For instance, the purchase of the latest model of smartphone devices will develop the sense of being different from other users, thus may result from being excluded from the existing social groups due to a different mobile application used. Consumers purchase their smartphone based on their needs and wants. Smartphones are a very powerful gadget which has the capabilities of constantly sharing information of users (e.g. GPS coordinates) which some users may find intrusive of their privacy and may have a negative social value to the user. These findings are consistent with Grant and O'Donohoe (2007) who suggested that young people may associate the commercial appropriation of this medium with irritation, intrusion, and mistrust which may lead to negative social values.

Additionally, the negative significant impact between social value and customer satisfaction of the smartphone brand among youth in Malaysia happened because smartphone brand failed to help the youth obtains any social approval. It may be caused by the limited effort been put on the social value associated with the smartphone's brand in the youth segment. Hence, smartphone's brand was found helpless for youth to be accepted by others, improved the way perceived them, and established a good impression on other people.

Concerning monetary value, the finding of this study has shown that monetary value has a significant effect on customer satisfaction. This has been supported by Ariff et al. (2012) and Lim et al. (2006) where they indicated that economic value has a positive relationship

with customer satisfaction. In the context of a mobile phone or smartphone, price becomes one of the factors to be considered by the youth in the decision-making process to buy the smartphone. This finding is supported by Leelakulthanit and Hongcharu (2012) when consumer perceived more towards the benefits of a smartphone, then he or she will perceive the price is fair. On the other hand, if a consumer perceives the performance of smartphone exceed their expectations and offers a good value for money, hence the perception of the price will be more favourable (Voss, Parasuraman, & Grewel, 1998).

Convenience value in this study emphasizes on the perceived usefulness of smartphone. The smartphone users perceive convenience in emphasizing the ease of use, effective in time management, accomplish tasks quickly, convenient, and accuracy of information. The results showed that convenience value has a positive relationship with customer satisfaction. Pura (2005) suggested that time saved and convenience were important and valuable to smartphone users. Thus, smartphone users could gain satisfaction from the smartphone's brand by perceived convenience value. For example, students may perceive higher convenience value in acquiring learning materials from school or college anywhere they go (e.g. browsing the internet to get information) by simply using a smartphone.

The present study finds that symbolic value has a positive effect on customer satisfaction concerning smartphone uses. Nowadays, smartphone device has become a "fashion" product that expresses themselves, especially for young consumers (Katz & Sugiyami, 2006; Wilska, 2003). In other words, owning a smartphone symbolizes lifestyle and taste. In the present study, most smartphone users are in between the age of 21 to 25 years old. Therefore, this indicates that young users can be described as "vanguard of fashion".

Gender, Emotional Value, Monetary value and Customer Satisfaction

The finding of this study indicates the impact of emotional value on customer satisfaction is greater among female than male smartphone users. This finding suggests that young female users are more satisfied when they perceived high emotional value when using the smartphone compared to young male users. In other words, a female consumer is more concerned about how the smartphone brand able to make them feel delighted, good and pleasure as compared to male consumers. This finding has been supported by Lim and Kumar (2008) whereby they stated that female consumers will focus on enjoyment (emotional value) in the context of mobile services.

A possible reason why female and male consumers have different levels of satisfaction towards the perception of the emotional value associated with a brand is probably due to personality differences among female and male themselves. Female consumers are more likely to express sincerely on how they feel about a certain product or brand that offers them more values. This finding also in line with the suggestion of Walsh, White and Young (2008), who noted that the usefulness and enjoyment of using a mobile phone can fulfil female emotional needs such as to keep in touch with their friends and family or play with their smartphone (entertainment) when they feel lonely. The results of the current study also indicate that perceived monetary value associated with the smartphone brand generates a high level of satisfaction effects for the male users compared to the female users. This means that when the male consumers perceive the price that they paid for the product is fair and reasonable; the more likely they will feel satisfied with the brand. Previous studies have found that perceived value (monetary value) is positively related to customer satisfaction in the context of service industries (e.g. Caruana & Fenech, 2005; McDougall & Levesque, 2000).

CONCLUSION

This study is carried out to gain a better understanding of the relationship between perceived value and customer satisfaction in the context of smartphone uses. Moreover, the study of cognitive-affective-conative loyalty model by Oliver (1997) has been explored by examining the moderating effect of gender on the relationship between perceived value and customer satisfaction. The current study adapted Sweeney and Soutar's (2001) conceptualization of perceived value and incorporated the dimension of convenience value from Pura's (2005) work as well as Bhat and Reddy (1998) suggestion of symbolic value which focuses on the aspect of status, role position and ego identification. Results of this study confirmed that five dimensions of perceived value have a substantial influence on satisfaction in term of a smartphone. The results of this study also demonstrate that gender moderates the relationship between several dimensions of perceived value and customer satisfaction. The result indicates that female consumers were found to have greater levels of satisfaction with the smartphone brand if they perceive the brand as having high emotional value while male consumers are more satisfied with a brand that has high monetary value.

This study proposes that companies must take the initiative to understand their users from different group perspectives (e.g. gender) to come up with a good marketing program to build a successful brand. Thus, it is important to understand the perceived value in term of functional value, social value, emotional value, monetary value, convenience value and symbolic value, customer and satisfaction to enhance the brand values and equity. Future research should also be directed to the understanding of social values with mobile technology. No longer can we expect the total positive relationship for social values because many variables may influence ones' social values compare to 20 years ago.

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Appendix A Factor Analysis of Perceived Value

Items	F1	F2	F3	F4	F5	F6
Factor 1: Functional value						
1 The brand is reliable.	.938					
2 The brand has good functions.	.871					
3 The brand fulfils my needs.	.862					
4 The brand is convenient to use.	.731					
5 The brand is outstanding.	.647					
Factor 2: Emotional value						
1 Using this brand is enjoyable.	.985					
2 Using this brand is interesting.	.939					
3 The brand gives me pleasure.	.883					
4 I feel good when I use this brand.	.747					
5 The brand makes me feel delight.	.643					
6 The brand is stylish.	.628					
Factor 3: Social value						
1 The brand gives me social approval.			.948			
2 The brand helps me to feel accepted by others.			.884			
3 The brand improves the way I am perceived by others.			.799			
4 The brand makes a good impression on other people.			.722			
Factor 4: Monetary value						
1 It is economical to use this brand.				.892		
2 The brand offers value for money.				.867		
3 The brand is good for the current price level.				.850		
4 The price of this brand is acceptable.				.812		
5 Compare with other brands, I consider that I received good quality for the price that I pay.				.516		
Factor 5: Symbolic value						
1 The brand prevents me from looking less prestigious.					.915	
2 The brand enhances the perceptions that I have a desirable lifestyle.					.894	
3 The brand indicates that I am a person with taste.					.818	
4 The brand helps me to better fit into my social group.					.789	
Factor 6: Convenience value						
1 I would prefer bring brand X rather that laptop to school/class/working place.						.871
2 Having a brand X is like having both a mobile phone and a computer together.						.784
3 Using this brand X can let me accomplish tasks more quickly.						.649
4 Using this brand is an efficient way to manage my time.						.448
Eigenvalue	12.08	2.85	2.14	1.35	1.03	.86
% of variance	43.13	10.17	7.66	4.83	3.69	3.07
Total variance explained	72.56					
Measure of sampling adequacy	.933					
Bartlett's test of sphericity	6284.08					
Significant	0.00					

Appendix B Factor Analysis of Customer Satisfaction

Items	Factor loadings
Customer satisfaction	
1. I think I did the right thing by using this brand.	0.942
2. I am very satisfied with my decision to use this brand.	0.926
3. I think I did the right thing when I purchase this brand.	0.912
4. Overall, my feeling to this brand is satisfactory.	0.902
5. My choice to this brand is a wise one.	0.897
Eigenvalue	4.195
% of variance	83.902
Total variance explained	83.902
KMO measure of sampling adequacy	0.900
Barlett's test of sphericity	1558.653
Significant	0.000

