



Validity and Reliability of the Utilitarian Value, Hedonic Value, Brand Satisfaction, Emotional Attachment, Brand Trust and Mobile Phone Brand Loyalty Scales

Linda Seduram¹, Selvan Perumal² and Hasnizam Bin Shaari³

^{1,2,3} School of Business Management, University Utara Malaysia, 06010 Sintok, Kedah, Malaysia.

Corresponding email: linda_seduram@yahoo.com

Article Information

Keywords

Utilitarian and Hedonic value,
Brand Satisfaction,
Emotional Attachment,
Brand Trust,
Mobile phone brand loyalty,

Abstract

The main purpose of this study is to investigate reliability and validity of small data pertaining to link of utilitarian value, hedonic value, brand satisfaction, emotional attachment, and brand trust on mobile phone brand loyalty in Malaysia. Hence, the goodness of measures was examined via academicians and data analysis with SPSS20. Overall, the values of alpha coefficients were above 0.90. The result of exploratory factor analysis (EFA) revealed that all factors loaded more than 0.75. The findings of this study showed that all the measures were reliable and valid. Therefore, the questionnaire developed was appropriate to be used in investigating the effects of utilitarian value, hedonic value, brand satisfaction, emotional attachment and brand trust on mobile phone brand loyalty in Malaysia. Thus, the identification and development of improved instruments that reflect Malaysian customers' evaluation upon mobile phone brand loyalty can be a useful tool for future academicians or researchers in the area of mobile phone brand loyalty topic, since there is lack of studies that tackle the issue of brand loyalty in mobile phone context.

INTRODUCTION

In this century, the mobile phone industry is one of the vibrant and fastest growing industry due to the latest smartphones boasting breakthrough features available in the market with rapid succession (Rowinski, 2014). Particularly in Malaysia, many world's top mobile phone manufacturers such as Apple, Samsung and Nokia frequently release new models in the constant battle for customer attention (Euromonitor International, 2014). The hyper competitive environment have made the mobile phone manufacturers face a great challenge to attract and retain customers. In fact, recent report on mobile phones in Malaysia reported that mobile phone manufacturers fail

to sustain their market shares in this highly competitive market (Euromonitor International, 2016). This clearly shows that, mobile phone industry in Malaysia exhibits high levels of brand switching among customers.

Mutually, scholars and practitioners admit that the best core marketing strategy to retain the existing customer is via strengthening customer's brand loyalty (Lam & Shankar, 2014; Petzer, Mostert, Kruger & Kuhn 2014; Lee, Moon, Kim & Yi, 2015). By creating and maintaining customer brand loyalty, a company develops long term, mutually beneficial relationship with the customers (Pan, Sheng and Xie, 2012). Hence, it is fair to say that customer brand loyalty is the keys to a mobile phone manufacture's survival in this fiercely competitive market. Despite the importance of mobile phone brand loyalty, researchers have paid scant attention to understand customers' brand loyalty regarding smartphones (Lin, Huang & Hsu, 2015). Correspondingly, study by Lam and Shankar (2014), pointed out that prior research focusses on only one or two key drivers of mobile phone brand loyalty (e.g. brand trust and brand satisfaction) in isolation rather than offering a comprehensive set of drivers in an integrated manner. Researchers have acknowledged that perceive value (utilitarian value and hedonic value), brand satisfaction, emotional attachment, brand trust are key drivers of brand loyalty but there were very limited empirical study on the basis of the integration of these key drivers on brand loyalty, in particular, in context of Malaysia mobile phone industry. This sparks the researcher's interest to address this insufficiency and pursued to bridge the existing research gap

Review of Literature

Primarily, utilitarian value refers to instrumental, functional and practical usefulness or benefits derived from a product (Voss, Spangenberg & Grohmanm, 2003). Hedonic value refers to aesthetics, experiential, or sensory related benefits from using a particular brand mobile phone (Voss et al, 2003). In mobile phone context, the utilitarian value and hedonic value are important factors when customers select the mobile brand (Sheng & Teo, 2012). In fact, recent studies (e.g. Lam & Shankar, 2014; Dastan & Gecti, 2014) indicated that customers consider utilitarian value and hedonic value when they purchase advanced technology product such as smartphone. In addition, numerous studies showed substantial association between utilitarian value, hedonic value and loyalty (Chai, Malhotra & Alpert, 2015; Chang, 2013; Hu & Chuang, 2012).

Brand satisfaction is customer's overall evaluation of whether a brand meets their performance expectations or fulfills usage needs (Grace & O'cass, 2005). In the mobile phone context, customers are likely to continue using the phone when they are satisfied (Lee et al., 2015; Wahid, Kassim, Igau & Harun, 2014). Because customers use mobile devices frequently, their satisfaction with the brand is likely to affect their brand repurchase. The linkage between brand satisfaction and brand loyalty has been well established and is a matter of extensive research (Lam & Shankar, 2014; Sahin, Zehir & Kitapci, 2011; Lin et al., 2015).

Emotional attachment is self-implicated emotion-laden bond between the customer and a brand (Thomson, MacInnis & Park, 2005; Lam & Shankar, 2014). In context of mobile phone, while the smartphone industry has experienced tremendous growth, the emotional attachment between smartphones owners and their phones are also becoming stronger (Dastan & Gecti, 2014). Also, Lam and Shankar (2014) explained that customers can become emotionally attached to mobile device because customers extremely rely on their smartphones to retrieve information by a simple browse and click to access their smartphone as they travel, commute and when relax at home. Previous research also have recognized the relationship between emotional attachment and brand loyalty (Jang, Kim & Lee, 2015; Theng So, Grant Parsons & Yap, 2013; Hwang & Kandampully, 2012).

Brand trust has been defined as the willingness of a regular customer to rely on the capability of a brand to perform its promised function (Chaudhuri & Holbrook, 2001). In mobile phone context, mobile devices need to work effectively at all times, store and transmit the right information, so uncertainty in mobile device performance can be high (Lam & Shankar, 2014). According to Chaudhuri and Holbrook (2001), consumer's trust upon a brand reduces consumer's uncertainty. Therefore, brand trust plays a very important role in mobile setting. Moreover, previous studies have extensively examined the link between brand trust and brand loyalty and the relationship has been well established (Lee et al., 2015; Ok, Choi & Hyun, 2011; Laroche, Habibi, Richard & Sankaranarayanan, 2012).

In this study, the term "brand loyalty" is defined as a deeply held commitment to patronize or repurchase a brand consistently in future, despite the potential of situational influences and marketing efforts to induce switching (Oliver, 1997). Generally, marketers and researchers focus on loyalty because loyalty is a company's most enduring asset (Aggarwal, 2014). In addition, brand loyalty is important for successful financial performance of the organizations (Castro & Pitta, 2012). Moreover, by pursuing brand loyalty, brand loyal customers are not cost

sensitive (Delgado-Ballester & Munuera-Aleman, 2001). In fact, they serve as powerful ambassadors for the brand (Hess, Story & Danes, 2011), and they are less likely to be tempted by the competitors' marketing promotions or switch to competitors (Wang & Li, 2012). Further, brand loyalty can increase customer's spending towards a specific brand and reduced marketing costs of a company (Gummesson, 2002). Hence, the importance of loyalty has been widely recognized in the marketing literature and brand loyalty has been considered as a key for a business's success since long time ago. Therefore, understanding the development or determinants of brand loyalty is of extremely important for highly competitive industry such as mobile phone industry.

Purpose of Study

The main aim of this study is to ensure the reliability and validity of the constructs (utilitarian value, hedonic value, brand satisfaction, emotional attachment, brand trust and mobile phone brand loyalty) in this study. According to Sekaran (2003), pre-test is highly recommended for the subjective assessment to be made on the survey instrument to ensure that the questions are understandable and appropriate items are used in measuring the constructs. Hence, the researcher consulted few academicians from marketing field (face and content validity) and small number of data were analyzed (exploratory factor analysis and reliability analysis) to ensure the goodness of the measures.

MATERIALS AND METHODS

Procedure and Participant

A pilot study is conducted mainly to assess the validity and reliability of the instrument. A pilot study basically suggests going for a small scale study for the trial purpose before conducting the full-fledged study (Gay, Mills, & Airasian, 2006). According to Malhotra (2008), the sample size for pilot study is suggested to be comparatively smaller which could range from 15-30 respondents. However, a total of 60 respondents were targeted for the purpose of this study. The pilot study was carried out in Klang Valley, Malaysia. Klang Valley was chosen in this study because Klang Valley registered 30.2% mobile phone users in 2014 which is more than a quarter of Malaysia's total mobile phone users (Malaysia Communication and Multimedia Commission, 2015). The data were collected through mall intercept at Midvalley Megamall which is one of the largest shopping mall in Klang Valley (exhibiting high traffic flow and shopper demographic diversity). Data collection via mall-intercept was selected due to its ability to access potential respondents over a short period of time and enable respondents to seek clarification if needed which will help to improvise the format of the instrument. Thus, a total of 60 completed surveys were obtained, however 4 cases were eliminated due to incomplete and unusable responses. Finally, a total of 56 responses being used for the data analysis using SPSS version 20. In addition, the assessments and recommendations of Universiti Utara Malaysia's (UUM) marketing Professors added the face and content validity of the instrument. It took approximately 1 month to complete the entire process.

Instrumentation and Measurement

The study was based on the development and administration of a self-administered survey. The survey consists of 9 sections. In Section 1, the survey began by asking respondents whether they have mobile phone or not. If yes, the respondents were required to choose one brand that they are currently using from a list of sixteen mobile phone brands. They were then asked to respond to the next sections keeping their chosen brand in mind as their frame of reference. Section 2 and Section 3: statements about utilitarian value and hedonic value were adapted from Voss et al., (2003) and used five seven-point semantic items each. Section 4: statements about emotional attachment using five items adapted from Lam and Shankar (2014). Section 5: statements about brand satisfaction consist of nine items adapted from Sahin et al., (2011). Section 6: statements about brand trust consist of eight items adapted from Delgado-Ballester and Luis Munuera-Alemán (2005). Section 7: statements about mobile phone brand loyalty with five items adapted from Karjaluoto, Jayawardhena, Leppaniemi and Pihlstrom (2012). All items for brand satisfaction, emotional attachment, brand trust and mobile phone brand loyalty were assessed on a seven point Likert scale ranging from "1=strongly disagree to "7=strongly agree in Appendix A. The study used seven-point Likert scale because study by Finstad (2010) opined that seven point Likert scale has been shown to be more accurate, easier to use and better reflection of a respondent's true evaluation. In addition, Cooper and Schindler (2006) pointed out that seven point Likert scale improves the reliability of the measures. Thus, seven point Likert scale was used to measure the items. Finally, Section 8: consist of questions about respondent's personal information such as gender, ethnicity, age, marital status, education level, occupation and monthly income.

RESULT*Profile of Respondent*

For the respondents' demographic characteristics, the majority of respondents were using Samsung brand mobile phone (42.95%), followed by Lenovo (25%), Apple (10.7%), Asus (8.9), Oppo (3.6%), Sony (3.6), Nokia (1.8), Huawei (1.8%) and Xiaomi (1.8%). Of the 56 respondents, 37.5% were male and 62.5% were female. Among the respondents who participated in this survey, 3.6% were below than 20 years of age, 30.4% were between 21 and 30 years of age, 28.6% were between 31 and 40 years of age, 26.8% were between 41 and 50 years of age and finally 10.7% were between 51 and 60 years of age. As for ethnic background, about 37.5% of the respondents were Malays, 37.5% Indians, 21.4% Chinese and 3.6% comprise of other races mainly compose of Kadazan and Eurasian. A majority 60.7% of the respondents surveyed were married and 39.3% of the respondents were single. The education level of respondents were varied with 37.5% of the respondents were diploma and certificate holders, 28.6% were having degree, 26.8% were masters and PhD holders, and 7.1% of the respondents were only secondary school leavers. Most of the respondents were employed (78.6%), followed by self-employed (10.7%) and student (10.7%). As for monthly income, 32.1% of the respondents indicated their household income to be from RM3001 till RM5000, 23.2% (RM1001-RM3000), 19.6% (RM5001-RM7000), 14.3% (RM7001-RM9000), 8.9% earning less than RM1000 and 1.8% reported over RM11001. The detailed results of demographic profile illustrated in Table 1.

Table 1:

Profile of respondents and mobile phone brands

Item	Descriptions	Frequency	Percentage (%)
Mobile Phone Brand	Apple	6	10.7
	Samsung	24	42.9
	Nokia	1	1.8
	HTC	0	0
	Blackberry	0	0
	Sony	2	3.6
	Motorola	0	0
	LG	0	0
	Lenovo	14	25
	Asus	5	8.9
	Huawei	1	1.8
	Oppo	2	3.6
	Acer	0	0
	ZTE	0	0
	Xiaomi	1	1.8
Others	0	0	
Gender	Male	21	37.5
	Female	35	62.5
Ethnicity	Malay	21	37.5
	Chinese	12	21.4
	Indian	21	37.5
	Others	2	3.6
Age	20 years and below	2	3.6
	21-30 years	17	30.4
	31-40 years	16	28.6
	41-50 years	15	26.8
	51-60 years	6	10.7
	60 years and above	0	0
Marital Status	Single	22	39.3
	Married	34	60.7
Highest Education	Primary school	0	0
	Secondary school	4	7.1
	College (Cert, Dip)	21	37.5
	Degree	16	28.6
	Post Degree	15	26.8

Table 1 (continued)

Item	Descriptions	Frequency	Percentage (%)
Occupation	Student	6	10.7
	Employee	44	78.6
	Self-employed	6	10.7
	Unemployed	0	0
	Housewife	0	0
Monthly Income	RM1000 and below	5	8.9
	RM1001-RM3000	13	23.3
	RM3001-RM5000	18	32.1
	RM5001-RM7000	11	19.6
	RM7001-RM9000	8	14.3
	RM9001-RM11000	0	0
	RM11001 and above	1	1.8

Face and Content validity

Content validity is mainly conducted to ensure how well the domain content of a construct is captured by its items (Hair, Black, Babin & Anderson, 2010). To achieve content validity, items from previous studies published in leading academic journals were adapted (Saunders, Lewis, & Thornhill, 2007). In addition, content and face validity were conducted in this study by seeking opinions of marketing experts from UUM about the measures' representativeness and appropriateness as suggested by Sekaran (2003). They were also requested to check whether there is any repetition, or there is any over or under representation of measures. The experts' suggestions and opinions helped the researcher to improvise the instrument that utilized for the pilot study.

Construct Validity

Content validity by asking a panel or group of experts is mostly a judgmental assessment of the items, constructs, and instrument as a whole which have been developed and based on extensive literature. On the other hand, construct validity is performed to ascertain that a test is evaluating the construct it was actually supposed to (Brown, 1996). Moreover, construct validity is said to be necessary for ensuring overall validity. As such, in order to evaluate the construct validity, exploratory factor analysis was conducted in this study using principal components method in the SPSS 20. Factor analysis aims to identify the items explaining same construct.

The KMO (Kaiser-Mayer-Olkin) index, in particular, is recommended when the cases to variable ratio are less than 1:5 (Williams, Brown & Onsmann, 2010). Therefore, in this study KMO measure of sampling adequacy was examined to ascertain the suitability of the factorability aspect of factor analysis. The KMO index ranges from 0 to 1, with 0.50 and above are considered suitable for factor analysis. In this study, the KMO ranged from 0.788 to 0.921 exhibiting pertinence of factor analysis in this study. Then, the factor loadings of each item were checked to ensure that all values are more than 0.50 as suggested by Hair et al., (2010). In this study, factor loadings of all items are ranged from 0.662 to 0.959. Furthermore, statistician view variables that have Eigen values above 1.00 are consider worthy of investigation. The condition was fulfilled where the eigenvalues were over 3. Finally, the percentage of variance in this study ranged from 71.063 to 85.707 which shows that the constructs reasonably attempt to explain the proposed research model. The detailed results of factor analysis are in Table 2.

Reliability Analysis (Internal Consistency)

According to Hair et al (2010), reliability refers to the consistency and stability among multiple items ascertained for a construct. Science social researchers have extensively employed Cronbach's Alpha method as suggested by Sekaran (2003) for reliability test. High value of Cronbach's alpha refers to higher consistencies of items which illustrate higher tendency to measure the intended construct. As such, reliability values between 0.60 and 0.70 is lowest limit of acceptability, 0.70 and 0.80 is adequate and finally value more than 0.80 reflects high reliability of the measure. Value of Cronbach's Alpha in this study ranges from 0.897 to 0.958 which is highly acceptable. Overall, items for each construct in this study were reliable. Table 2 presents result of the reliability value for pilot study.

Table 2:
Result of Exploratory Factor Analysis

Construct	Factor Loadings	KMO	Eigen-value	% of variance	Reliability
Utilitarian value		0.793	3.621	72.416	0.903
UV1	0.836				
UV2	0.840				
UV3	0.938				
UV4	0.817				
UV5	0.818				
Hedonic value		0.882	4.285	85.707	0.958
HV1	0.822				
HV2	0.942				
HV3	0.952				
HV4	0.947				
HV5	0.959				
Brand satisfaction		0.921	6.722	74.688	0.953
BS1	0.875				
BS2	0.924				
BS3	0.916				
BS4	0.919				
BS5	0.883				
BS6	0.662				
BS7	0.899				
BS8	0.863				
BS9	0.806				
Emotional Attachment		0.826	3.553	71.063	0.897
EA1	0.774				
EA2	0.821				
EA3	0.861				
EA4	0.859				
EA5	0.894				
Brand trust		0.891	5.881	73.515	0.947
BT1	0.850				
BT2	0.866				
BT3	0.806				
BT4	0.894				
BT5	0.899				
BT6	0.849				
BT7	0.875				
BT8	0.815				
Brand loyalty		0.788	3.647	72.936	0.906
BL1	0.778				
BL2	0.898				
BL3	0.903				
BL4	0.854				
BL5	0.831				

CONCLUSION

On the whole, with lack of previous studies on the determinants of mobile phone brand loyalty in an integrated manner, this study appear to be important and worthy of investigation as this study contributes to the existing body of knowledge by providing an empirically reliable and valid instrument to measure the effects of utilitarian value, hedonic value, brand satisfaction, emotional attachment and brand trust on mobile phone brand loyalty. The constructs used in this study were adapted indicates that there is a foundational support for alternative model representing a future exploration of determinants of mobile phone brand loyalty. This includes the identification and development of improved instruments that reflect Malaysian customers' evaluation upon mobile phone brand loyalty. Hence, this study can be useful tool for future researchers in the area of mobile phone brand loyalty.

Appendix A. Questionnaire

Factors

Utilitarian value

This brand of mobile phone is...

UV1 ineffective-effective

UV2 not helpful-helpful

UV3 not functional-functional

UV4 not necessary-necessary

UV5 impractical-practical

Hedonic value

This brand of mobile phone is...

HV1 not fun-fun

HV2 dull-exciting

HV3 not delightful-delightful

HV4 not thrilling-thrilling

HV5 unenjoyable-enjoyable

Brand satisfaction

BS1 I am very satisfied with the service provided by this brand.

BS2 This brand does a good job of satisfying my needs.

BS3 The phones provided by this brand are very satisfactory.

BS4 I believe that using this brand is usually a very satisfying experience.

BS5 I made the right decision when I decided to use this brand.

BS6 I am addicted to this brand in some way.

BS7 I am very satisfied with this brand.

BS8 This brand fulfils my expectations completely.

BS9 I have positive attitude towards this brand.

Emotional Attachment

EA1 I feel emotionally attached to the brand that I am currently using.

EA2 This brand means a lot to me personally.

EA3 Even if it were to my advantage to switch to another brand, I would not feel good about switching to that brand.

EA4 I identify myself with this brand.

EA5 I feel a special bond between myself and this brand.

Brand trust

BT1 This brand meets my expectations.

BT2 I feel confidence in this brand.

BT3 This brand never disappoints me.

BT4 This brand guarantees satisfaction.

BT5 This brand would be honest and sincere in addressing my concerns.

BT6 I could rely on this brand to solve any problem with the phone.

BT7 This brand would make any effort to satisfy me in case of a problem.

BT8 This brand would compensate me in some way for the problem with the phone.

Mobile phone brand loyalty

BL1 I am a loyal customer of this brand.

BL2 I will buy this brand in my next purchase.

BL3 I consider my current brand as a first choice for mobile phone brands.

BL4 I have said positive things about this brand to other people.

BL5 I have recommended this brand to someone who sought my advice.

REFERENCES

- Aggarwal, R. (2014). Consumer Loyalty Behaviour : What is Done and What Else to be Done. *SOP Transaction on Marketing Research*, 1(1), 1–22.
- Brown, J. D. (1996). *Testing in language programs*. Upper Saddle River, NJ: Prentice Hall Regents.
- Castro, K., & Pitta, D. a. (2012). Relationship development for services: an empirical test. *Journal of Product & Brand Management*, 21(2), 126–131.
- Chai, J. C. Y., Malhotra, N. K., & Alpert, F. (2015). A two-dimensional model of trust–value– loyalty in service relationships. *Journal of Retailing and Consumer Services*, 26, 23–31.
- Chang, C. C. (2013). Examining users' intention to continue using social network games: A flow experience perspective. *Telematics and Informatics*, 30(4), 311–321.
- Chaudhuri, A., & Holbrook, M. B. (2001). The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty. *Journal of Marketing*, 65(2), 81–93.
- Cooper, D. R., & Schindler, P. S. (2006). *Business research methods with CD*. (9th edition). McGraw-Hill.
- Dastan, I., & Gecti, F. (2014). Relationships among Utilitarian and Hedonic Values, Brand Affect and Brand Trust in the Smartphone Industry. *Journal of Management Research*, 6(2), 124.
- Delgado-Ballester, E., & Luis Munuera-Alemán, J. (2001). Brand trust in the context of consumer loyalty. *European Journal of Marketing*, 35(11/12), 1238-1258.
- Euromonitor International (2014). *Passport: Mobile Phones in Malaysia*. Available from <http://www.euromonitor.com/mobile-phones-in-malaysia/report>
- Euromonitor International (2016). *Passport: Mobile Phones in Malaysia*. Available from <http://www.euromonitor.com/mobile-phones-in-malaysia/report>.
- Finstad, K. (2010). Response Interpolation and Scale Sensitivity: Evidence against five point likert Scale. *Journal of Usability Studies*, 5 (3), 104-110.
- Gay, L. R., Mills, G. E., & Airasian, P. (2006). *Educational research: competencies for analysis and applications* (8th ed.). Upper saddle River, New Jersey: Pearson Education International.
- Grace, D. & O'Cass, A. (2005). Examining the effects of service brand communications on brand evaluation. *Journal Of Product & Brand Management*, 14(2), 106-116.
- Gummesson, E. (2002). Relationship Marketing in the New Economy. *Journal of Relationship Marketing*, 1(1), 37-57.
- Hair, J. F., Jr., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis* (7th ed.) NJ: Pearson Prentice Hall.
- Hess, J., Story, J., & Danes, J. (2011). A three-stage model of consumer relationship investment. *Journal of Product & Brand Management*, 20(1), 14-26.
- Hu, F. L., & Chuang, C. (2012). A study of the relationship between value perception and loyalty Intention toward an E-retailer website. *Journal of Internet Banking and Commerce*, 17(1), 1-18.
- Hwang, J., & Kandampully, J. (2012). The role of emotional aspects in younger consumer-brand relationships. *Journal of Product & Brand Management*, 21(2), 98–108.
- Jang, Y. J., Kim, W. G., & Lee, H. Y. (2015). Coffee shop consumers' emotional attachment and loyalty to green stores: The moderating role of green consciousness. *International Journal of Hospitality Management*, 44, 146–156.
- Karjaluoto, H., Jayawardhena, C., Leppäniemi, M., & Pihlström, M. (2012). How value and trust influence loyalty in wireless telecommunications industry. *Telecommunications Policy*, 36(8), 636–649.
- Lam, S. Y., & Shankar, V. (2014). Asymmetries in the effects of drivers of brand loyalty between early and late adopters and across technology generations. *Journal of Interactive Marketing*, 28(1), 26–42.
- Laroche, M., Habibi, M.R., Richard, M., Sankaranarayanan, R. (2012). The effects of social media based brand communitities on brand community markers, value creation practices, brand trust and brand loyalty. *Computers in Human Behaviour*, 28, 1755-1767.
- Lee, D., Moon, J., Kim, Y. J., & Yi, M. Y. (2014). Antecedents and consequences of mobile phone usability: Linking simplicity and interactivity to satisfaction, trust, and brand loyalty. *Information & Management*.
- Lin, T.-C., Huang, S.-L., & Hsu, C.-J. (2015). A dual-factor model of loyalty to IT product – The case of smartphones. *International Journal of Information Management*, 35(2), 215–228.
- Malaysian Communications and Multimedia Commission. (2015). *Communications & Multimedia Pocket Book of Statistics Q1*. Retrieved from http://www.skmm.gov.my/skmmgovmy/media/General/pdf/MCMC-Q1-2015_PocketBook.pdf
- Malhotra, N.K. (2008). *Essentials of marketing: an applied orientation* (2nd ed.). Australia: Pearson Education

- Ok, C., Choi, Y. G., & Hyun, S. S. (2011). Roles of Brand Value Perception in the Development of Brand Credibility and Brand Prestige. *2011 ICHRIE Conference*.
- Oliver, R. L. (1997). *Customer satisfaction: A behavioural perspective on the consumer*. New York: McGraw-Hill.
- Pan, Y., Sheng, S., & Xie, F. T. (2012). Antecedents of customer loyalty: An empirical synthesis and reexamination. *Journal of Retailing and Consumer Services*, 19(1), 150–158.
- Petzer, D., Mostert, P., Kruger, L., & Kuhn, S. (2014). The Dimensions of Brand Romance As Predictors of Brand Loyalty among Cell Phone Users. *South African Journal of Economic & Management Sciences*, 17(4), 457-470.
- Rowinski, D. (2014). *Why 2014 is the year of the cheap smartphone*. Retrieved April 9, 2015, from <http://readwrite.com/2014/03/24/cheap-smartphone-2014>.
- Şahin, A., Zehir, C., & Kitapçı, H. (2011). The effects of brand experiences, trust and satisfaction on building brand loyalty; an empirical research on global brands. *Procedia - Social and Behavioral Sciences*, 24, 1288–1301.
- Saunders, M., Lewis, P. & Thornhill, A. (2007). *Research methods for business students* (4th edition). London: Prentice Hall.
- Sekaran, U. (2003). *Research method for business: a skill building approach* (4th ed.). Singapore: John Wiley & Sons.
- Sheng, M. L., & Teo, T. S. H. (2012). Product attributes and brand equity in the mobile domain: The mediating role of customer experience. *International Journal of Information Management*, 32(2), 139–146.
- Theng So, J., Grant Parsons, A., & Yap, S. (2013). Corporate branding, emotional attachment and brand loyalty: the case of luxury fashion branding. *Journal of Fashion Marketing And Management: An International Journal*, 17(4), 403-423.
- Thomson, M., MacInnis, D. J., & Whan Park, C. (2005). The Ties That Bind: Measuring the Strength of Consumers' Emotional Attachments to Brands. *Journal of Consumer Psychology*, 15(1), 77–91.
- Voss, K., Spangenberg, E., & Grohmann, B. (2003). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal of Marketing Research*, 40(3), 310-320.
- Wahid, A., Kassim, M., Igau, O. a, Harun, A., & Tahajuddin, S. (2014). Mediating Effect of Customer Satisfaction on Perceived Product Quality, Perceived Value, and Their Relation to Brand Loyalty. *International Journal of Research in Management & Business Studies*, 1(2), 13–18.
- Wang, W., & Li, H. (2012). Factors Influencing Mobile Services Adoption: A Brand - Equity. *Internet Research*, 22(2), 142-179.
- Williams, B., Brown, T., & Onsman, A. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3).