



UNIVERSITI PUTRA MALAYSIA

***CONSUMPTION VALUES, ATTITUDES TOWARDS TECHNOLOGY AND
MODERATING EFFECTS OF CULTURAL PERSPECTIVE ON MOBILE
PHONE REPLACEMENT BEHAVIOUR AMONG Y GENERATION***

YONG HIEW WEI

FEM 2018 2



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By

YONG HIEW WEI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfillment of the Requirements for the Degree of Doctor of Philosophy**

October 2017

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirements for the degree of Doctor of Philosophy

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October 2017

Chairman: Sharifah Azizah Haron, PhD

Faculty: Human Ecology

Frequent change of mobile phones is believed to bring negative consequences to our well-being. The replacement behaviors are influenced by complex reasoning that lies beyond product depreciation such as consumption values and technology adoption. The main objective of this study was to examine the factors associated with the tendency of consumers' compulsive replacement behavior on a mobile phone. The Theory of Consumption Values, Technology Acceptance Model and Theory of Planned Behavior were applied as the basis for the theoretical framework of the study. These theories serve to guide the conceptual framework which includes the study of consumption values (functional values, epistemic values, emotional values and social values) and attitude towards technology and tendency of consumers' compulsive replacement behavior. This study also investigates the moderation effect of cultural perspectives on the relationship between consumption values and attitudes towards technology and tendency of compulsive replacement behavior. The conceptualized model was then developed into replacer typologies. A multi-stage sampling method was used and the sample comprising of 500 consumers were obtained from Mid Valley Megamall, Berjaya Times Square Shopping Centre, Kuala Lumpur Convention Centre and Cheras Leisure Mall. The data obtained in this study was collected via self-administered questionnaire. The data was statistically analyzed using descriptive analysis, structural equation modeling, cluster analysis and chi-square analysis. Results indicated that most of the respondents had low to moderate level of compulsive replacement behavior tendency. Results also suggested that there was a significant relationship between epistemic value, emotional value and social value and attitude towards technology. Meanwhile, findings showed that there were some forms of moderation effects of cultural perspective on the relationship between consumption values, attitude towards technology and tendency of compulsive replacement behavior. In addition, the variables of function value, epistemic value,

emotional value and social value were identified as the statistically significant predictors of compulsive replacement behavior tendency. Based on the confirmed hypothesized model, replacer typologies which consisted of apathetic replacers, pragmatic replacers and enthusiastic replacers were constructed. Majority of the respondents fell under pragmatic and apathetic replacer group. The results from chi-square analysis showed that enthusiastic replacers have a greater emphasis on the consumption values, are highly motivated towards new technology, have high incomes and are likely to have the tendency of compulsive in replacement of mobile phones. This study appeared to support the relationship consumption values and consumers' tendency of compulsive mobile phone replacement behavior. Further studies should explore about other factors that influence tendency of compulsive mobile phone replacement behavior with a diversified range of population or qualitative research method.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**NILAI-NILAI PENGGUNAAN, SIKAP TERHADAP TEKNOLOGI DAN
KESAN MODERASI PERSPEKTIF BUDAYA KE ATAS TINGKAH LAKU
PENGgantian TELEFON BIMBIT DALAM KALANGAN GENERASI Y**

Oleh

YONG HIEW WEI

Oktober 2017

Pengerusi: Sharifah Azizah Haron, PhD
Fakulti: Ekologi Manusia

Kekerapan bertukar telefon bimbit boleh membawa kesan negatif kepada kesejahteraan hidup kita. Tingkah laku penggantian dipengaruhi oleh sebab yang kompleks melangkaui kesusutan nilai produk seperti nilai penggunaan dan penerapan teknologi. Objektif utama kajian ini adalah untuk menyelidik faktor-faktor yang berkaitan dengan kecenderungan tingkah laku kompulsif penggantian telefon bimbit pengguna. "Theory of Consumption Values, Technology Acceptance Model and Theory of Planned Behavior" diaplikasi dan digunapakai sebagai asas kepada kerangka teori untuk kajian ini. Teori-teori ini menjadi panduan dalam membentuk kerangka konseptual yang merangkumi nilai penggunaan (nilai fungsi, nilai epistemik, nilai emosi, nilai sosial) dan sikap terhadap teknologi terhadap kecenderungan tingkah laku kompulsif penggantian pengguna. Kajian ini juga mengkaji kesan moderasi perspektif budaya terhadap hubungan antara nilai penggunaan dan sikap terhadap teknologi ke atas kecenderungan tingkah laku kompulsif penggantian. Model konseptual kajian ini seterusnya dibangunkan menjadi tipologi pengganti. Kaedah yang digunakan ialah persampelan pelbagai peringkat dan sampel ini melibatkan seramai 500 pengguna dari pusat beli belah berikut: Megamall Mid Valley, Pusat Beli Belah Berjaya Times Square, Pusat Konvensyen Kuala Lumpur dan Leisure Mall Cheras. Data telah dikutip menggunakan soalankaji selidik yang diisi sendiri oleh responden. Analisis statistik data dibuat menggunakan analisis deskriptif, model persamaan struktural, analisis kluster dan analisis *chi-square*. Hasil kajian menunjukkan bahawa kebanyakan responden mempunyai kecenderungan tingkah laku kompulsif penggantian pada tahap yang rendah hingga sederhana. Hasil kajian juga menunjukkan terdapat hubungan yang signifikan antara nilai epistemik, nilai emosi dan nilai sosial dengan sikap terhadap teknologi. Sementara itu, nilai fungsi, nilai epistemik, nilai emosi dan nilai sosial didapati mempunyai hubungan yang signifikan dengan kecenderungan tingkah laku kompulsif penggantian. Tambahan pula, kajian mengenalpasti nilai fungsi, nilai

epistemik, nilai emosi dan nilai sosial sebagai pembolehubah peramal yang signifikan bagi kecenderungan tingkah laku penggantian secara kompulsif. Berdasarkan model andaian yang telah disahkan, topologi gantian terdiri daripada pengganti bersikap tidak peduli, pengganti pragmatik dan pengganti bersemangat. Majoriti responden dikategorikan dalam kumpulan pengganti pragmatik dan kumpulan pengganti tidak peduli. Hasil analisis *chi-square* menunjukkan bahawa pengganti bersemangat menekankan nilai penggunaan, bermotivasi tinggi terhadap teknologi baru, berpendapatan tinggi dan bersikap cenderung untuk mengganti telefon bimbit secara kompulsif. Kajian ini menyokong hubungan antara nilai penggunaan dan kecenderungan penggantian telefon bimbit secara kompulsif. Kajian pada masa hadapan diharapkan akan meneroka faktor-faktor lain yang mempengaruhi tingkah laku penggantian telefon bimbit secara kompulsif dengan menggunakan populasi berbeza atau kaedah penyelidikan kualitatif.



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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisor Committee were as follows:

Sharifah Azizah Haron, PhD

Associate Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Chairman)

Laily Paim, PhD

Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Member)

Syuhaily Osman, PhD

Senior Lecturer
Faculty of Human Ecology
Universiti Putra Malaysia
(Member)

ROBIAH BINTI YUNUS, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

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Name and Matric No: Yong Hiew Wei, GS27062

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Signature: _____

Name of Chairman of Supervisory Committee:

Sharifah Azizah Haron

Signature: _____

Name of Member of Supervisory Committee:

Laily Paim

Signature: _____

Name of Member of Supervisory Committee:

Syuhaily Osman

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LIST OF ABBREVIATIONS

TAM	Technology Acceptance Model
UTAT	Unified Theory of Acceptance and Use of Technology
TRI	Technology Readiness Index
TPA	Technology Adoption Propensities
SPSS	Statistical Package for the Social Science
AMOS	Analysis of a Moment Structures
VIF	Variance Inflation Factor
SEM	Structural Equation Modeling
CFA	Confirmatory Factor Analysis
GOF	Goodness of fit indices
RMSEA	Root Mean Square Error of Approximation
RMR	Root Mean Square Residual
SRMR	Standardized Root Mean Square Residual
GFI	Goodness of Fit Index
AGFI	Adjusted Goodness of Fit Index
NFI	Normed Fit Index
CFI	Comparative Fit Index
PNFI	Parsimonious Normed Fit Index
X^2/df	Relative chi-square
X^2	Chi-square
DF	Degree of freedom
AIC	Akaike Information Criterion
MI	Modification indices
AVE	Average Variance Extracted
CR	Construct Reliability
SD	Standard Deviation
SEM	Structural Equation Modeling
β /Beta	Standardized Regression Weights
p	p-value/significance level
B	Unstandardized Regression Weights Estimate
SE	Standard error
ML	Maximum Likelihood
N	Total sample size
n	Subsample size
C.R.	Critical Ratio
CV	Cramer's V
F-value	F critical value
CMIN	Chi square
χ^2	Chi square
IFI	Incremental Fit Index
TLI	Tucker Lewis Index
DV	Discriminant Validity
SIC	Squared Interconstruct Correlation

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The penetration of mobile phone use in Malaysia was almost 138% reaching 39.8 million of subscribers (Malaysian Communications and Multimedia Commission, 2012). In 2013, IE Market Research's Mobile Operator Forecast estimated that there are approximate 41.9 million people who subscribed to various service providers, which make a 5.28% jump from 2012. The high volume of mobile subscribers indicates the following : (1) mobile phones become the need in this modern days as comparable to shoes; (2) the rapid changes in the mobile technology that makes it becomes very affordable to all people from various socioeconomic background; (3) mobile technology advanced so fast that consumers have to continually replace their gadget to keep up with the rapid technology obsolescence; (4) marketing strategies are effectively in persuading and convincing consumers to replace their gadgets more often than before.

According to the Consumer Technology Association, average smartphone life expectancy is 4.7 years before its performance reduces (Consumer Technology Association, 2014). Interestingly, Recon Analytics (2011) indicated that Americans change their mobile phones in every 22 months, at least once in less than a year. The Euro monitor International (2013) analysis report showed that Malaysians replaced their mobiles every 21 months. Malaysian Communications and Multimedia Commission (MCMC) Statistic Department (2014) reported that 38.8% of Malaysians replaced their mobile phones for the past 12 months. MCMC Statistic Department Malaysia (2014) also reported that over the years, one handphone ownership has shown a decreased trend whereas ownership of two or more hand phones has shown an increased trend in some cases. People also like to keep their old phone after procuring a new one. In short, consumer Malaysia included have the tendency to change their phone even if the old phone is not reaching the end of its lifecycle.

Roberts et al. (2008) explains that mobile phone compulsive replacement behavior tendency as one tendency to purchase the handset in excess of an individual's needs and resources. And, it can brought about many consequences. For example, frequent changing in the high-tech products are believed to negatively impact the human health such as suffering from headache, hearing and lack of energy issues, causing a decline in academic success levels, breaking down face-to-face communication, harming one financial budget and negatively impact the environment (Nair, 2012; Wilhelm, Yankov & Magee, 2011). From an environmental point of view, rapid production of materials and components used to produce mobile phones give rise to the toxicity problems (Nair, 2012). Consequently, as consumer-oriented markets and

economies continue to advance, it is likely that the rate of environmental destruction caused by over consumption will be greatly accelerated (Manolis & Roberts, 2008). According to Chung & Han (2006), consumer behavior including mobile phone replacement behavior is shaped by cultural and social value; thus excluding cultural factors, hinder one's attempt to understand consumer behavior. As such, understanding of values and cultural perspectives are helpful in addressing the tendency of mobile phone compulsive replacement behavior. In case of Malaysia, a multicultural country practiced by various ethnic groups such as Malays, Chinese and Indians, it has a mixture of religious, customs, values and culture being practiced. In addition, previous literature (e.g. Jamal, 2006; Abdullah & Lim, 2001) indicated that Malaysian put a great emphasis on the importance of family, belonging to in-group or social goals and harmonious relationship. In other words, cultural socialization shaped one's worldview which in turn influence their consumer and consumption behaviors, mobile phone replacement behavior included.

1.2 Problem Statement

Marketers and consumers have conflicting interest. Marketers prefer products with high sales turnover to secure more profit. Thus, more frequent product replacement is welcomed. On the contrary, consumers generally look for products that can last longer and require less frequent replacement to help them save money. In an era when consumer electronics such as handphones and other gadgets are considered as "necessities", the pace of new product release is a proof of dynamism and innovativeness of such industry. According to GfK (Gesellschaft für Konsumforschung)'s Technical Market Index report (2012), Malaysia's outstanding earnings in second quarter 2012 were contributed by the technology consumer goods segments with the growth range from eight to thirty percent. Consumer's eager anticipation and adoption of the latest technology in smart phones and tablet have substantially boosted the earnings in this industry. Consequently, this has made mobile phones are one of the fastest growing categories of consumption goods in Malaysia. Therefore, it is vital and timely for a study that examine consumer tendency of compulsive mobile phone replacement behavior to be carried out for the following justifications:

First, on average, consumer electronic products lifecycle is about five years although there are differences between specific products. As for smartphones, Consumer Technology Association (CTA) explained that on average it can last up to 4.7 years before its performance is compromised (Consumer Technology Association, 2014). In addition, according to Consumer Technology Association (2014), when consumer electronic devices reach the end of their useful life, most consumers replace them with the same type of product (i.e., replace a smartphone with another smartphone). In case of Malaysia, the replacement rate of the mobile phone becomes very fast up - i.e. about 22 months, close to that of the United States of 21 months despite smartphone average lifespan of 4.7 years (Consumer Technology Association, 2014). As new mobile phones are acquired when they are not yet obsolete, therefore Malaysian Communications and Multimedia Commission (MCMC) (2014) reported that over the years, one handphone ownership has shown a decreased trend whereas

ownership of two or more hand phones has shown an increased trend in some cases. Therefore, it is highly relevant to analyse of Malaysian consumer behaviors of mobile phone replacement is towards the tendency of being downright "compulsive". According to Robert and Manolis (2008), compulsive replacement tendency is one's tendency to purchase in excess of a person's needs. So far, previous literature on compulsive behaviors (e.g. Edwards, 1997; Roberts, 2000; Roberts & Jones, 2001) never apply their analyses on consumer replacement behaviors of handphones. Thus, this study will fill the literature gap on compulsive behaviors by measuring one's tendency for compulsive replacement behaviors.

Second, consumer replacement behaviors of their handphones are influenced by many factors beyond product depreciation or obsolescence (Murugan, 2014). It is not excessive to conclude that the current replacement phenomena is fueled by consumer's eager anticipation and adoption of the latest technology in smart phones and tablet which have substantially boosted the earnings in his industry. Hong & Zhuqing (2008) mentioned that consumer's purchase decision often comes from the common driving factor which is the consumption values no matter what kind of product they are purchasing. For example, Flanagan, Howe & Nissenbaum (2008) proposed that the study of technology shall include value dimensions. In this case, consumption values are introduced to be included in examining its relation to attitude towards technology. Meanwhile, Kim et al. (2011) claimed that emotional and social dimensions of consumer values affect a buyers' purchase intention. While Tseng & Lo (2011) suggested that positive beliefs on technology affect consumer choice decision. In addition, most of the existing research has generally focused on economic perspective in examining the reason of trading up or upgrade behavior (Teng, Lu and Yu, 2009) and psychological cost of replacement behavior (Guiltinan, 2010). Furthermore, their concerns are mainly on other durable products such as automobile and consumer household products. The study of consumption values in replacement behavior in the context of the mobile phone remains scarce. Therefore, in order to bridge the gap, the consumption values and attitude towards technology are incorporated as the constructs in the study to examine the tendency of mobile phone compulsive replacement behavior.

Third, there is a missing link of the psychological blind-spot of consumer replacement behavior that needs to be addressed in the study. There is a need to study the consumer tendency of mobile phone compulsive replacement behavior in a holistic perspective. Du Preez (2003) highlighted the importance of the holistic model in delivering an integrative view of consumer behavior. Apart from studying the individual consumption values and attitude towards technology, cultural perspective was incorporated into the study to moderate the influence of consumption values and attitude towards technology on the tendency of mobile phone compulsive replacement behavior. For example, Pavlou & Chai (2002) claimed that cultural differences between China and the United States are relevant to consumer behavior. Their research includes cultural dimensions as key moderator of the effect of the theory of planned behavior variables on online consumer behavior which aims to explain e-commerce adoption across cultures (Pavlou & Chai, 2002; Al-Gahtani, Hubona & Wang, 2007). Zhang and Maruping (2008) also noted that investigation of the interaction effects of cultural values can enhance the understanding of consumer

purchase behavior. A consumer who possesses specific cultural values would place more or less emphasis on different factors of adoption intention in their purchasing decision. The research was done by Liu et. al., (2010) further confirmed that there is a significant effect of cultural values on consumer decision-making process. Ramamoorthy and Flood (2002) on the other hand stated that moderating effects of individualism-collectivism orientations on attitudes and behavioral intentions.

Fourth, the literature reviewed has provided a body of knowledge to better understand the consumer durable purchase decision. For example, Guiltinan (2010) focused on psychological costs such as marketing strategies or new product innovation in predicting replacement behavior while Alnawas & Aburub (2016) highlighted the interaction-based benefits in the context of mobile features in analyzing replacement behavior. However, current literature almost neglects the consumer replacement behaviors from the perspective of obsession and compulsiveness, which makes it, becomes an interesting topic to be further explored by researchers. For example, it is puzzling why consumers are willing to line up to become the first buyer who wanted to own the new iPhone or Samsung mobile phone in the market? The current study attempted to go beyond relying on the surface reason of consumer durable purchase intention to explain consumer replacement behavior by analyzing tendency of consumer compulsive behavior and draw up a typology of replacement behavior, which to the best of the researcher's knowledge, previous research has neglected. In this respect, a replacer typology study would be useful based on the premise that mobile phone replacer could be placed into the continuum of highly involved replacers at one group and uninvolved replacers at the other group with the manifestation of consumption values and attitudes towards technology.

In short, replacing old handphones with new ones in itself is not a problem. However, with shorter smartphone replacement cycle, the old models that are left behind become a great concern, especially to the environmentalist (Nair, 2012). In addition, rapid revising of the replacement cycle play an important role in social development around the world (Howard and Mazaheri, 2009). Furthermore, the importance of consumption values and attitude towards technology affecting tendency of mobile phone compulsive replacement behavior has not been researched exclusively in the past. In this respect, the study of mobile phone compulsive replacement tendency would be useful to understand and perhaps predict this incidence of mobile phone compulsive replacement behavior. This study, therefore, attempt to fill this void in knowledge by proposing an applicable, valid and reliable conceptual framework to explore tendency of compulsive replacement behavior. It serves as the pioneering role in presenting the integrative model by incorporating the constructs of consumption values, attitude towards technology as well as moderating effect of cultural perspective in studying tendency of compulsive replacement in mobile phone context.

1.3 Research Questions

In response to the above problem statement, the derived research questions are listed below:

1. What are the levels of consumption values, attitude towards technology, cultural perspectives and the tendency of mobile phone compulsive replacement behavior?
2. Do consumption values relate to attitude towards technology?
3. Do consumption values and attitude towards technology related to consumer's tendency of mobile phone compulsive replacement behavior?
4. Are the consumption values and attitudes towards technology related to consumer's tendency of mobile phone compulsive replacement behavior as moderated by cultural perspectives?
5. What are the typologies of consumer's mobile phone replacement behavior?

1.4 Significant of the Study

The significant of the current study is threefold which include of theoretical, methodological and practical. The details are discussed below:

1.4.1 Theoretical Contribution

This study extends the concept of replacement behavior to a new context which is the mobile phone as well as the tendency of compulsiveness. Since there is limited evidence of studying the importance of consumer values and attitude towards technology on the tendency of compulsive replacement behavior, this research help to fill the theoretical gap by furnishing theoretical justifications of the concepts of relationships between consumption values, attitude towards technology and tendency of compulsive replacement behavior. The emphasis of values and attitudes towards technology in this study has successfully reverted the call from past researchers to include the importance of values and attitudes towards technology in explaining consumption behavior (Hong & Zhuqing, 2008; Flanagan et al., 2008).

In addition, this study assists to generate useful insights into the theory and research development of consumer behavior within the spectrum of consumer science. To the best of the researcher's knowledge, this study serves as one of the early efforts to investigate the inclusion of consumption values, attitude towards technology as well as moderating effect of cultural perspectives in predicting tendency of mobile phone compulsive replacement behavior. In line with that, it helps to gain comprehensive understanding of the complexities of the tendency of compulsive replacement behavior. For instance, this research indicates that the relationships hypothesized are not simply linear in nature. These relationships can be potentially non-linear when

cultural considerations are included. By including the moderating role of cultural perspectives, this study expands the applicability of compulsive replacement behavior tendency to a different context. It helps to provide insights on how cultural context affect individual's values, technology adoption and the tendency of compulsive replacement behavior. This effort again has responded to the previous researchers to include cultural context as moderator in studying consumer behavior (Chung & Han, 2006; Mintu-Wimsatt, 2000; Zhang & Maruping, 2008).

Furthermore, the development of replacement typologies based on the theoretical framework derived from Sheth Theory of Consumption Values and Technology Acceptance Model which includes of consumption values and attitudes towards technology assist to face the critics of lacking theoretical consolidation in variables selection in segmentation studies (Dibb & Simkin, 2009).

1.4.2 Methodological Contribution

This study has methodologically contributed to the body of knowledge by establishing a valid and reliable framework to measure the tendency of mobile phone compulsive replacement behavior. There was a series of tests including confirmatory factor analysis (CFA), multi-group analysis, cross validation of cluster analysis and chi-square analysis that were applied in this study in order to achieve validation of the conceptual framework. Initially, the CFA in the structural equation modeling was used not only to achieve the reliability, but also to confirm the construct and discriminant validity of the model. In order to achieve the generalizability of the model, the multi-group analysis in SEM was used to examine the moderation effect of cultural perspectives on the relationship between consumption values, attitudes towards technology and tendency of compulsive replacement behavior. Lastly, the cluster analysis was used to develop typologies of consumers' compulsive replacement behavior. According to Singh (1990), estimating a cluster using a theoretically derived framework could generate more explanatory power to the research study.

1.4.3 Practical Contribution

The framework of the study is believed that it would bring some impacts and applications to various stakeholders such as marketers, policy makers and consumers in terms of market analysis, product planning, promotional strategy and government or consumer education or protection policy.

From the consumer's perspective, this research could assist people to understand their consumption values and attitude towards technology as well as their levels of replacement trend. The typologies analysis showed that enthusiastic replacer tended to put emphasis on the consumption values, was motivated towards technology adoption and was likely to have a tendency in compulsive replacing their existing

mobile phones. Consumers with compulsive mobile phone replacement tendency would often engage in impulse replacing and uncontrollable replacing binges. Such attitudes could bring negative impacts on individual financial wellness. By realizing the factors contributed to this incidence, severe enthusiastic replacers could consult expert financial counselors in order to improve their purchasing decisions. The financial counselors would give assistance and treatment to those enthusiastic replacers in order to overcome their disorders. These consumers could be taught to discover their root of excessive purchasing and replacing mobile phones, find techniques to reduce their overspending and make a good purchasing decision. Besides that, the financial counselors could help consumers to gradually manage their compulsive replacement behavior by creating the budget when making their replacement decisions.

The harmful effects of excessive replacement behavior would affect the consumer's financial wellness, thus could be a negative social phenomenon. This research was used for the social makers to consider the negative impacts of compulsive replacement behavior and provide guidelines to them on how to reduce its negative impacts. In contrast, the results of this study showed that both social value and epistemic value were correlated with compulsive replacement behavior. The analysis would enable the government to educate the public by having awareness programmed as one form of informal education. For instance, they could implement the programme on educating young consumers about the wrong mindset of replacing mobile phones in order to follow their social groups. This was due to the fact that excessive replacing could lead to psychological distress (Xu, 2008). Government and relevant parties should take a great consideration and tackle the growing replacement trend among Malaysians in order to reduce the negative consequences of the tendency of compulsive replacement behavior.

From the marketing perspectives, the marketers might be aware of consumers' buying trend and developed a marketing strategy by implementing sales technique on potential customers based on their replacement tendencies. Marketers could develop their market segmentation based on consumers' tendency to buy their products. From there, the marketers could target people of high compulsivity and high impulsion in order to improve their sales and profits. The market strategists could also design marketing plans based on the values that could drive consumers to replace their existing mobile phones. Therefore, those values not only could be considered as a guideline in market analysis, but could be treated as a tool to achieve greater precision and effectiveness in market segmentation. Furthermore, the marketers could use these consumer values in identifying their new product opportunities and modifying the existing products to be consistent with consumer value profiles (Kim et al., 2002). For example, most of the network service providers in Malaysia noticed that consumers emphasized social values when choosing to subscribe to a network service provider. In this case, Digi released the friends and family package that allowed consumers to enjoy lower rates of the phone call, SMS and MMS to their favorite friends or family members. Besides Digi, Maxis also offered a supplementary package that allowed unlimited free calls between the principal line and supplementary line holder. Consumers would gain benefit from the introduction and transformation of products and services that were tailored to their needs and

values. This would certainly enhance a consumers' satisfaction level towards the particular products or services.

Apart from market analysis and segmentation, this study was also useful to academicians whereby the current study could serve as a reference and might provide some guides for other researchers to study more deeply about who might be at risk or affected in order to decrease the incidences of compulsive replacement behavior among consumers in Malaysia.

1.5 Research Objectives

The general objective of this study was to identify factors associated with consumer's tendency of compulsive mobile phone replacement behavior. The study further identified the moderating effect of cultural perspectives in the relationships of consumption values and attitudes towards technology on the tendency of mobile phone compulsive replacement behavior. The conceptualized model in the study was then used to derive typologies of replacer. Thus, the specific objectives of this study were established as shown below:

1. To describe the consumer consumption values (functional, social, epistemic and emotional), attitude towards technology and the tendency of mobile phone compulsive replacement behaviors.
2. To determine the relationship between the consumption values (functional, social, epistemic and emotional) and the attitude towards technology.
3. To determine the relationship between the consumption values (functional, social, epistemic and emotional) and attitude towards technology and tendency of mobile phone compulsive replacement behavior.
4. To determine the moderation effect of cultural perspective on the relationship between the consumption values (functional, social, epistemic and emotional) and attitude towards technology and tendency of mobile phone compulsive replacement behavior.
5. To develop typologies of consumer's mobile phone replacement behavior.

1.6 Research Hypothesis

The main objectives of this research were to understand how consumption values affect the consumer's attitude towards technology and how attitude towards technology held by consumers affect their tendency of mobile phone compulsive replacement behavior. The hypothesis testing explains the interdependence or difference among the groups of two or more factors in a research. In order to achieve the research goal, the hypotheses were developed based on the conceptual model and relevant literature related to the constructs in the model.

Hypothesis statement 1 [H₀₁]:

There is no significant relationship between the consumption values (functional value, epistemic value, emotional value and social value) and attitude towards technology.

H_{01a}: There is no significant relationship between the functional value and attitude towards technology.

H_{01b}: There is no significant relationship between the epistemic value and attitude towards technology.

H_{01c}: There is no significant relationship between the emotional value and attitude towards technology.

H_{01d}: There is no significant relationship between the social value and attitude towards technology.

Hypothesis statement 2 [H₀₂]:

There is no significant relationship between the consumption values (functional value, epistemic value, emotional value and social value), attitude towards technology and tendency of mobile phone compulsive replacement behavior.

H_{02a}: There is no significant relationship between the functional value and tendency of mobile phone compulsive replacement behavior.

H_{02b}: There is no significant relationship between the epistemic value and tendency of mobile phone compulsive replacement behavior.

H_{02c}: There is no significant relationship between the emotional value and tendency of mobile phone compulsive replacement behavior.

H_{02d}: There is no significant relationship between the social value and tendency of mobile phone compulsive replacement behavior.

H_{02e}: There is no significant relationship between the attitude towards technology and tendency of mobile phone compulsive replacement behavior.

Hypothesis statement 3 [H₀₃]:

There is no significant moderation effect of cultural perspective on the relationships between the consumption values, attitude towards technology and tendency of mobile phone compulsive replacement behavior.

H_{03a}: There is no significant moderation effect of horizontal individualism on the relationships between the consumption values, attitude towards technology and tendency of mobile phone compulsive replacement behavior.

H_{03b}: There is no significant moderation effect of vertical individualism on the relationships between the consumption values, attitude towards technology and tendency of mobile phone compulsive replacement behavior.

H_{03c}: There is no significant moderation effect of horizontal collectivism on the relationships between the consumption values, attitude towards technology and tendency of mobile phone compulsive replacement behavior.

H_{03d}: There is no significant moderation effect of vertical collectivism on the relationships between the consumption values, attitude towards technology and tendency of mobile phone compulsive replacement behavior.

1.7 Terminology Definition

1.7.1 Functional Value

Conceptual: Functional value refers to the perceived utility of products performance in terms of its functional, utilitarian and physical purposes (Sheth, Newman and Gross, 1991)

Operational: Functional value takes into account on the products durability, and physical performance, including product quality, comfortableness, practicality, resourceful, price and convenience.

1.7.2 Epistemic Value

Conceptual: Epistemic value is the perceived utility derived from an object's ability to entice eagerness, provide freshness and fulfill a wish for enlightenment. The value is generated from stimuli that are unfamiliar and somehow distinctive to them (Sheth et al., 1991).

Operational: Epistemic value takes into account on whether the products are exclusive, new style, distinguishable from others, arouse curiosity and leads to a new knowledge.

1.7.3 Emotional Value

Conceptual: Emotional value refers to the expected utility obtained from an alternative's ability to entice sensation or affection (Sheth et al., 1991).

Operational: Emotional value is measured in the domains of subjective feelings, physiological activation and personality tendencies.

1.7.4 Social Value

Conceptual: Social value refers to how consumers become motivated to purchase because the products are related to their social norms (Sheth et.al., 1991).

Operational: Social value is investigated in terms of their social class, symbolic value, reference groups, conspicuous and compensatory consumption and a normative component of attitude and opinion leadership.

1.7.5 Contributory Technology Adoption

Conceptual: Contributory technology adoption takes into account to the high probability of an individual adopting diversify the new high innovation products (Ratchford and Barnhart, 2011).

Operational: Contributory technology adoption is investigated in terms of optimism and proficiency. Optimism is a belief that technology provides increased control and flexibility in life. Proficiency refers to consumer's confidence to adapt quickly to learn the new technology.

1.7.6 Inhibition of Technology Adoption

Conceptual: Inhibition of technology adoption refers to the low possibility of individual adopting different types of new highly innovative products (Ratchford and Barnhart, 2011).

Operational: Inhibition of technology adoption is investigated in terms of dependence and vulnerability. Dependence is the feeling of overly dependent on technology while vulnerability defined as the beliefs that innovation too good for someone using it for the nefarious purpose.

1.7.7 Horizontal Individualism

Conceptual: Horizontal individualism refers to the extent to which individuals strive to be exclusive without desiring special status (Triandis, Hawuk and Gelfand, 1998).

Operational: Horizontal individualism is investigated in terms of the idea of an independent individual and emphasis on equality.

1.7.8 Vertical Individualism

Conceptual: Vertical individualism refers to the degree to which individuals strive to be distinct and wish to acquire special status (Triandis et al., 1998).

Operational: Vertical individualism is investigated in term of the conception an independent individual and acceptance of inequality.

1.7.9 Horizontal Collectivism

Conceptual: Horizontal collectivism relates to the extent to which a person place importance in interdependence without gives in easily to authority (Triandis et al., 1998).

Operational: Horizontal collectivism measures include identifies him or herself as part of the group, but equal treatment to everyone in the group and hence equality is emphasized.

1.7.10 Vertical Collectivism

Conceptual: Vertical collectivism refers to the degree to which individuals placed the priority on interdependence and competition with out-groups (Triandis et al., 1998).

Operational: Vertical collectivism measures include identifies him or herself as part of the group, but treat the members in the group unequally and hence competition is emphasized.

1.7.11 Compulsive Replacement Behavior

Conceptual: Compulsive replacement behavior refers to the behavior or characteristic of the customer has an uncontrollable and repetitive urge to replace their existing products (Edwards, 1993).

Operational: Compulsive replacement behavior is investigated based on five factors adopted from Edward's compulsive buying behavior, namely feelings about replacing, dysfunctional spending, and drive to replace, feeling about spending and replacing and post purchase guilt.

1.8 Organization of the Thesis

The thesis is organized into five chapters with the following orientations:

Chapter 1 provides introduction and background of the study, problem statement and research objectives. This is followed by the hypotheses of the study. Thereafter, the definitions of terms are explained in the final part of the chapter.

Chapter 2 outlines the prior research as well as the theoretical perspective of the study. Each of the constructs used in the study is explained in detail based on the previous research and theories. The chapter ends with the research framework that established to answer the research objectives.

Chapter 3 explains the methodology used in this study. The chapter starts with the discussion of research design, measurement of constructs, research instrument, pre-test, sampling procedure, data collection and data analysis tools and techniques used to test the research hypothesis respectively.

Chapter 4 explores the findings and discussions of the study. The results of socio-demographic background, socio-economics, replacement patterns, descriptive analysis each of the constructs and inferential statistics used to test the research objectives are presented and discussed in this chapter.

Chapter 5 delivers the summary, conclusion and recommendations for further and future research. Summary of the major findings is presented first and followed by the implications of the study. Subsequently, the chapter provides the conclusion of the study based on the research objectives. Implications, as well as limitations and recommendation for future research, are presented last to end the chapter.

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