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**A STUDY ON BRAND LOYALTY: EMPIRICAL EVIDENCE FROM THE  
MOBILE PHONE MARKET IN MALAYSIA**

**By**

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in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

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## ABSTRACT

Faced with a severe competitive business environment and the possibility of reaching maturity stage over the coming years, mobile phone brand owners are concerned about retaining and nurturing their profitable existing customers by strengthening customers' brand loyalty. Surprisingly, studies relating to brand loyalty in the mobile phone setting are relatively scanty and much less studies have focused on comprehensive sets of brand loyalty determinants in the context of mobile phones. Therefore, understanding the formation of mobile phone brand loyalty is of utmost importance and it is the main concern of this study. Drawing upon Oliver's four- stage loyalty model, this study investigated the relationship of utilitarian value and hedonic value (cognitive loyalty), brand satisfaction and emotional attachment (affective loyalty), brand trust (conative loyalty), and brand loyalty (action loyalty) sequentially. The study, moreover, examined the moderating effect of brand reputation in order to provide a clearer understanding of the mobile phone customers' brand loyalty formation process. A total of 327 mobile phone users who resided in Klang Valley participated in the study. The results from the structural model supported the hypothesized paths: hedonic value influences brand satisfaction, hedonic value affects emotional attachment, brand satisfaction induces brand trust, emotional attachment influences brand trust, and brand trust influences brand loyalty. However, the hypothesized paths, i.e. utilitarian value influences brand satisfaction and utilitarian value influences emotional attachment, were not supported. The findings further indicated that the links of brand trust to brand loyalty are stronger when the brand has a high reputation, supporting the moderating effect of brand reputation. Finally, the implications are discussed, and the limitations of the study and future directions are briefly outlined.

**Keywords:** mobile phone brand loyalty, utilitarian value, hedonic value, brand satisfaction, emotional attachment, brand trust and brand reputation.

## ABSTRAK

Dalam menghadapi persekitaran perniagaan yang sangat kompetitif dan kemungkinan mencapai peringkat kematangan pada tahun-tahun akan datang, pemilik jenama telefon bimbit mula memberi tumpuan terhadap cara untuk mengekalkan serta memupuk pelanggan sedia ada yang menguntungkan mereka dengan mengukuhkan kesetiaan jenama pelanggan. Hairannya, kajian yang berkaitan dengan kesetiaan jenama dalam konteks telefon bimbit agak kurang dan tidak banyak kajian yang memberikan tumpuan kepada set penentu kesetiaan jenama telefon bimbit yang komprehensif. Oleh itu, memahami pembentukan kesetiaan jenama telefon bimbit amat penting dan menjadi tumpuan utama kajian ini. Berdasarkan model kesetiaan empat peringkat Oliver, kajian ini menyelidik hubungan nilai utilitarian dan nilai hedonik (kesetiaan kognitif), kepuasan jenama dan ikatan emosi (kesetiaan afektif), kepercayaan jenama (kesetiaan konatif), dan kesetiaan jenama (kesetiaan tindakan) secara berurutan. Seterusnya, kajian ini turut meneliti kesan pengantara reputasi jenama untuk memberikan kefahaman yang lebih jelas tentang proses pembentukan kesetiaan pelanggan terhadap jenama telefon bimbit. Seramai 327 orang pengguna telefon bimbit yang tinggal di Lembah Klang telah mengambil bahagian dalam kajian ini. Dapatan model struktur menyokong laluan hipotesis berikut iaitu nilai hedonik mempengaruhi kepuasan jenama, nilai hedonik memberikan kesan kepada ikatan emosi, kepuasan jenama mendorong kepercayaan jenama, ikatan emosi mempengaruhi kepercayaan jenama dan kepercayaan jenama mempengaruhi kesetiaan jenama. Walau bagaimanapun, laluan hipotesis nilai utilitarian yang mempengaruhi kepuasan jenama dan nilai utilitarian yang mempengaruhi ikatan emosi tidak disokong. Seterusnya, dapatan kajian menunjukkan bahawa pautan kepercayaan jenama kepada kesetiaan jenama lebih kuat apabila jenama mempunyai reputasi yang tinggi. Hal ini menyokong kesan pengantara reputasi jenama. Implikasi kajian, batasan kajian serta arah kajian pada masa hadapan juga dinyatakan secara ringkas.

**Kata kunci:** kesetiaan jenama telefon bimbit, nilai utilitarian, nilai hedonik, kepuasan jenama, ikatan emosi, kepercayaan jenama dan reputasi jenama

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## TABLE OF CONTENT

|   |           |
|---|-----------|
| TITLE PAGE .....  | i         |
| CERTIFICATION OF THESIS WORK.....   | ii        |
| PERMISSION TO USE .....   | iv        |
| ABSTRACT .....  | v         |
| ABSTRAK .....   | vi        |
| ACKNOWLEDGEMENTS .....  | vii       |
| TABLE OF CONTENT .....  | viii      |
| LIST OF TABLES .....  | xii       |
| LIST OF FIGURES.....  | xiv       |
| LIST OF ABBREVIATIONS .....   | xv        |
| <b>CHAPTER ONE: INTRODUCTION</b> .....  | <b>1</b>  |
| 1.1 Background of the Study .....   | 1         |
| 1.2 Problem Statement.....  | 6         |
| 1.3 Research Questions.....   | 13        |
| 1.4 Research Objectives .....   | 14        |
| 1.5 Scope of the Study .....  | 14        |
| 1.6 Significance of the Study.....  | 15        |
| 1.7 Definitions of Variables.....   | 18        |
| 1.8 Organization of Thesis.....   | 19        |
| <b>CHAPTER TWO: LITERATURE REVIEW</b> .....   | <b>21</b> |
| 2.1 Overview of Mobile Phone Industry .....   | 21        |
| 2.2 Overview of Loyalty.....  | 24        |
| 2.3 Dick and Basu (1994) model of loyalty.....  | 27        |
| 2.4 Oliver's four stage loyalty model .....   | 31        |
| 2.4.1 Cognitive loyalty.....  | 32        |
| 2.4.2 Affective Loyalty .....   | 33        |
| 2.4.3 Conative Loyalty.....   | 34        |
| 2.4.4 Action Loyalty .....  | 36        |
| 2.5 Perceive Value (Utilitarian Value and Hedonic Value) .....                                | 37        |
| 2.6 Brand Satisfaction.....   | 41        |
| 2.6.1 Relationship between utilitarian value and hedonic value on brand<br>satisfaction ..... | 43        |

|  |           |
|--|-----------|
| 2.7 Emotional Attachment .....   | 47        |
| 2.7.1 Relationship between utilitarian value and hedonic value on emotional attachment. .... | 49        |
| 2.8 Brand Trust .....  | 51        |
| 2.8.1 The relationship between brand satisfaction and brand trust.....                       | 53        |
| 2.8.2 The relationship between emotional attachment and brand trust.....                     | 57        |
| 2.9 Brand Loyalty .....  | 60        |
| 2.9.1 Relationship between brand trust and brand loyalty.....                                | 61        |
| 2.10 Moderation effect .....   | 66        |
| 2.10.1 The moderation role of brand reputation .....   | 67        |
| 2.11 Research Framework .....  | 70        |
| 2.12 Summary of the chapter.....   | 72        |
| <b>CHAPTER THREE: METHODOLOGY .....</b>  | <b>74</b> |
| 3.0 Introduction .....   | 74        |
| 3.1 Research Design .....  | 74        |
| 3.2 Operationalization and Measurement of Variables .....                                    | 75        |
| 3.2.1 Utilitarian Value.....   | 75        |
| 3.2.2 Hedonic Value .....  | 76        |
| 3.2.3 Brand satisfaction.....  | 77        |
| 3.2.4 Emotional Attachment .....   | 77        |
| 3.2.5 Brand trust.....   | 78        |
| 3.2.6 Brand reputation.....  | 79        |
| 3.2.7 Brand Loyalty .....  | 80        |
| 3.3 Instrumentation.....   | 82        |
| 3.4 Pretesting of the Instrument.....  | 84        |
| 3.5 Pilot Study .....  | 85        |
| 3.5.1 Reliability test .....   | 86        |
| 3.6 Population of the study .....  | 87        |
| 3.7 Sample Size and Power Analysis .....   | 88        |
| 3.8 Sampling Design.....   | 90        |
| 3.9 Data Collection Procedure.....   | 93        |
| 3.10 Data analysis strategy .....  | 95        |
| 3.11 Summary of the chapter.....   | 98        |
| <b>CHAPTER FOUR: DATA ANALYSES AND RESULTS.....</b>  | <b>99</b> |
| 4.1 Introduction .....   | 99        |



|  |            |
|--|------------|
| 4.2 Response rate .....  | 99         |
| 4.3 Data screening and preliminary .....   | 100        |
| 4.3.1 Missing value analysis .....   | 101        |
| 4.3.2 Assessment of outliers .....   | 102        |
| 4.3.3 Normality Test .....   | 103        |
| 4.3.4 Multicollinearity test .....   | 104        |
| 4.4 Non Response Bias .....  | 106        |
| 4.5 Common Method Variance (CMV) .....   | 109        |
| 4.6 Respondent's profiles .....  | 111        |
| 4.7 Descriptive statistics .....   | 114        |
| 4.8 Evaluation of PLS-SEM Path Model Results .....   | 115        |
| 4.9 Measurement Model Assessment .....   | 116        |
| 4.9.1 Individual item reliability .....  | 116        |
| 4.9.2 Internal consistency reliability .....   | 117        |
| 4.9.3 Convergent Validity .....  | 120        |
| 4.9.4 Discriminant Validity .....  | 121        |
| 4.10 Structural Model Assessment .....   | 125        |
| 4.10.1 Assessment of Variance Explained in the Endogenous Latent Variables. ....                   | 129        |
| 4.10.2 Effect Size .....   | 130        |
| 4.10.3 Predictive Relevance of the Model .....   | 132        |
| 4.10.4 Testing Moderating Effects .....  | 134        |
| 4.10.5 Determining the strength of the moderating effect. ....                                     | 135        |
| 4.11 Summary of findings .....   | 136        |
| 4.12 Summary of the chapter .....  | 137        |
| <b>CHAPTER FIVE: DISCUSSION .....</b>  | <b>139</b> |
| 5.1 Introduction .....   | 139        |
| 5.2 Recapitulation of the Study's Findings .....   | 139        |
| 5.3 Discussion .....   | 140        |
| 5.3.1 The Relationship of Utilitarian Value and Hedonic Value with Brand Satisfaction .....        | 141        |
| 5.3.2 The Relationship between Utilitarian Value and Hedonic Value with Emotional Attachment ..... | 145        |
| 5.3.3 The Relationship of Brand Satisfaction and Emotional Attachment with Brand Trust .....       | 149        |

|  |     |
|--|-----|
| 5.3.4 The Relationship between Brand Trust and Brand Loyalty.....  | 152 |
| 5.3.5 Moderating Effect of Brand Reputation on the Relationship between<br>Brand Trust and Brand Loyalty ..... | 155 |
| 5.4 Theoretical Implications .....   | 156 |
| 5.4.1 Additional Empirical Evidence about the Network of Relationships<br>among Study Variables .....          | 157 |
| 5.4.2 Significant Moderating Role of Brand Reputation .....  | 160 |
| 5.5 Practical Implications .....   | 163 |
| 5.6 Limitation of the Study and Directions for Future Research.....  | 168 |
| 5.7 Conclusion .....   | 169 |
| <b>REFERENCES</b> .....  | 171 |
| <b>APPENDICES</b> .....  | 199 |



## LIST OF TABLES

|  |     |
|--|-----|
| Table 1.1 NBO Market Shares of Mobile Phones in Malaysia: % Volume 2011-2015             | 3   |
| Table 1.2 Sales of Mobile Phone: Volume 2010-2015  | 5   |
| Table 1.3 Sales of Mobile Phone: Value 2010-2015   | 5   |
| Table 1.4 Forecast Sales of Mobile Phone: Volume 2015-2020                               | 5   |
| Table 1.5 Forecast Sales of Mobile Phone: Value 2015-2020                                | 6   |
| Table 2.1 The Relationship between Utilitarian Value and Hedonic Value with Satisfaction | 45  |
| Table 2.2 The Relationship between Values and Attachment                                 | 50  |
| Table 2.3 The Relationship between Brand Satisfaction and Brand Trust                    | 55  |
| Table 2.4 The Relationship between Emotional Attachment and Brand Trust                  | 59  |
| Table 2.5 The Relationship between Brand Trust and Brand Loyalty                         | 64  |
| Table 2.6 Summary of Research Objectives and Hypotheses Development                      | 71  |
| Table 3.1 Utilitarian value measures (5 items)   | 76  |
| Table 3.2 Hedonic value measures (5 items)   | 76  |
| Table 3.3 Brand satisfaction measures (9 items)  | 77  |
| Table 3.4 Emotional attachment measures (5 items)  | 78  |
| Table 3.5 Brand trust measures (8 items)   | 79  |
| Table 3.6 Brand reputation measures (4 items)  | 80  |
| Table 3.7 Mobile phone brand loyalty measures (5 items)                                  | 81  |
| Table 3.8 Summarization of number of items for each constructs and their source          | 81  |
| Table 3.9 Pilot study results  | 87  |
| Table 3.10 Rule of thumb (Krejcie & Morgan 1970)   | 90  |
| Table 3.11 Population in Klang Valley  | 91  |
| Table 3.12 Selected Malls  | 92  |
| Table 3.13 The sample of district and selected malls                                     | 94  |
| Table 4.1 Response rate  | 100 |
| Table 4.2 Total and percentage of missing value  | 102 |
| Table 4.3 Tolerance Value, Variance Inflation Factor (VIF) and Condition Index           | 105 |
| Table 4.4 Group Statistics   | 106 |
| Table 4.5 Independent Sample t-test Results  | 107 |
| Table 4.6 Profile of respondents and mobile phone brands                                 | 111 |
| Table 4.7 Descriptive statistics for Latent Variables (N = 327)                          | 114 |

|   |     |
|---|-----|
| Table 4.8 Outer Loadings and Composite Reliability .....                | 118 |
| Table 4.9 Average Variance Extracted (AVE) .....                        | 120 |
| Table 4.10 Cross Loading .....  | 121 |
| Table 4.11 Latent Variable Correlations and Square Root of AVE .....    | 123 |
| Table 4.12 Heterotrait-Monotrait (HTMT) .....                           | 125 |
| Table 4.13 Result of full structural model with moderator .....         | 128 |
| Table 4.14 Variance Explained in the Endogenous Latent Variables .....  | 129 |
| Table 4.15 Effect Size on Mobile Phone Brand Loyalty (Endogenous) ..... | 131 |
| Table 4.16 Effect Size on Brand Trust (Endogenous) .....                | 131 |
| Table 4.17 Effect Size on Emotional Attachment (Endogenous) .....       | 131 |
| Table 4.18 Effect Size on Brand Satisfaction (Endogenous) .....         | 131 |
| Table 4.19 Predictive relevance of the model .....                      | 133 |
| Table 4.20 Summary of hypotheses testing .....                          | 137 |



## LIST OF FIGURES

|   |     |
|---|-----|
| Figure 2.1 Dick and Basu's Model .....                          | 28  |
| Figure 2.2 Oliver's Four Stage Loyalty Model.....               | 31  |
| Figure 2.3 Research Framework .....                             | 70  |
| Figure 4.1 Histogram and Normal Probability Plots .....         | 104 |
| Figure 4.2 A Two-Step Process of PLS Path Model Assessment..... | 115 |
| Figure 4.3 Measurement model .....                              | 116 |
| Figure 4.4 Structural model .....                               | 126 |
| Figure 4.5 Moderating effect of brand reputation.....           | 135 |



## LIST OF ABBREVIATIONS

|       |  |
|-------|--|
| AVE   | Average Variance Extracted                         |
| BL    | Brand Loyalty                                      |
| BR    | Brand Reputation                                   |
| BS    | Brand Satisfaction                                 |
| BT    | Brand Trust  |
| CMV   | Common Method Variance                             |
| EA    | Emotional Attachment                               |
| $f^2$ | Effect Size  |
| GDP   | Gross Domestic Product                             |
| GPS   | Global Positioning System                          |
| HD    | High Definition                                    |
| HTMT  | Heterotrait – Monotrait                            |
| HV    | Hedonic Value                                      |
| MCMC  | Malaysian Communications and Multimedia Commission |
| PC    | Personal Computer                                  |
| PhD   | Doctor of Philosophy                               |
| PLS   | Partial Least Square                               |
| $Q^2$ | Construct Cross validated Redundancy               |
| $R^2$ | R-squared values                                   |
| SEM   | Structural Equation Model                          |
| SPSS  | Statistical Package for the Social Sciences        |
| UV    | Utilitarian Value                                  |
| VIF   | Variance Inflation Factor                          |

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background of the Study**

In this era of digitalization of production, customers are exposed to a wide range of options for each product. Hence it is extremely tough to manage customers stick closer towards a specific brand in this highly competitive environment. According to Fournier and Yao (1997), central element of marketing strategies and tactics in increasingly competitive markets is brand loyalty. Brand loyalty leads to benefits such as creating substantial entry barriers for competitors, making customers less likely to be tempted by the marketing efforts of competitors, enhancing financial performance of a company with greater sales revenue, and improving the ability to respond to competitive threats by other firms (Delgado-Ballester & Luis Munuera-Aleman, 2001). Therefore, the sources of brand loyalty and the process by which it can be established have long been the central concern in the marketing literature (Matzler, Grabner – Krauter & Bidmon, 2008). In line with this, the study by Shi, Chen and Ma (2011) pointed out that interest of researchers has been focused more on brand loyalty studies in various industries and that brand loyalty has remained hot spot in marketing research. Likewise, the practical and conceptual significance of brand loyalty as a research area has been emphasized by myriad volume of studies published in leading academic journals (Pan, Sheng & Xie, 2012). The study by Saeed, Rehman, Akhtar and Abbas (2014) further indicates that brand loyalty is an important research topic

among researchers till now. To sum it up, the concept of brand loyalty has received a great deal of attention from researchers and continues to be so.

Apart from researchers, practitioners are also concerned about managing brand loyalty among their customers and it has become an essential part of doing their business successfully (Petzer, Mostert, Kruger & Kuhn, 2012). There are several reasons behind it. Firstly, due to today's increasingly competitive environment, a lot of firms face difficulties in increasing or maintaining their market share. This indicates that firms are facing greater challenges of gaining customers' loyalty towards their brand (Han & Hyun, 2012). Secondly, since many markets have reached a saturation state, retaining existing customers via brand loyalty is a strategic necessity for firms in the maturity stage (Kim, Wang, Chang & Park, 2016). Thus, aforementioned phenomenon such as competitive business environment and market saturation have made the practitioners believe that strategic business goals should center on enhancing customers' brand loyalty.

With the above mentioned backdrop, mobile phone industry appears to be one of the most competitive and fastest growing industries due to the latest smartphones with breakthrough features available in the market with rapid succession rate (Rowinski, 2014). In Malaysia, many world's top mobile phone brand owners such as Apple, Samsung and Nokia frequently release new models in their battle for customer attention (Euromonitor International, 2016). For instance, latest smartphones such as iPhone 7 plus, Samsung Galaxy S7 Edge, HTC One M10, Sony Xperia Z5 Dual, Lenovo K5 note and LG GS were launched in 2016. Due to the rapid introduction of new models launched by each mobile phone brand owners, consumers have a wide



variety of mobile phone brands to choose from. Therefore, the hyper competitive environment has made the mobile phone brand owners face a great challenge to ensure that the customers will repeat their purchase within the same brand when it is time for customers to replace their mobile phone. Yet the fluctuating and declining trend in the customers' purchase of mobile phones brands can clearly be witnessed in explanation of Table 1.1.

Table 1.1  
*NBO Market Shares of Mobile Phones in Malaysia: % Volume 2011-2015*

| <b>Brand</b>                       | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Samsung                            | 29.2        | 37.8        | 41.0        | 41.7        | 38.9        |
| Apple                              | 8.5         | 11.6        | 14.2        | 18.4        | 22.3        |
| Nokia                              | 25.4        | 27.5        | 14.4        | 10.8        | 8.1         |
| HTC                                | 10.4        | 6.4         | 4.3         | 3.8         | 2.8         |
| Sony                               | -           | 3.6         | 3.5         | 2.4         | 2.0         |
| LG                                 | 0.6         | 0.6         | 0.7         | 0.7         | 0.6         |
| Research in Motion<br>(Blackberry) | 6.4         | 5.5         | 2.7         | 1.6         | -           |
| Motorola                           | 5.2         | 0.9         | 0.5         | -           | -           |
| Sony Ericson                       | 11.4        | -           | -           | -           | -           |
| Others                             | 3.1         | 6.2         | 18.7        | 20.5        | 25.3        |
| Total                              | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       |

Source: Euromonitor International, (2016).

Table 1.1 depicts fluctuations and decline in the market shares of mobile phone players in Malaysia during 2011-2015. For instance, market share of Nokia increased

in 2012 but it has declined rapidly from 2013 until 2015. Similarly, the market share of Samsung increased during 2011-2014 but then decreased in 2015. Following the fashion, LG's market share increased in 2013 and yet decreased in 2015. Finally market share of Sony increased in 2012 and decreased rapidly during 2013-2015. This trend clearly shows that the market shares of Nokia, Samsung, LG and Sony were following a fluctuating pattern. Besides fluctuations, there is also a strong decline in the market shares of mobile phone players. As can be seen in table 1.1, the market shares of HTC, Blackberry, Motorola and Sony Ericsson sharply declined during 2011-2015 leading to the eventual withdrawal of Blackberry, Motorola and Sony Ericsson from the market. Fluctuating and declining trend in the market shares of mobile phone brand owners reflects that mobile phone industry in Malaysia exhibits high level of brand switching among customers. Therefore, in a competitive mobile phone industry where customers have a vast variety of mobile phone brands to choose from, it is vital for mobile phone brand owners to build brand loyalty in order to limit switching behavior among their customers and thereby create an enduring customer brand relationship.

Besides that, the competitive landscape of Malaysia mobile phone industry not only exhibits fierce competition but is also expected to reach its maturity stage over the coming years (Euromonitor International, 2016). After a steady increase in sales of mobile phones in terms of volume and value from 2010-2015 (Table 1.2 and Table 1.3), the market is expected to reach its maturity stage as the sales are forecasted to decrease during 2016-2020 (details are presented in Table 1.4 and Table 1.5).

Table 1.2  
*Sales of Mobile Phone: Volume 2010-2015*

| <b>'000 units</b> | <b>2010</b> | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Feature phones    | 2729.2      | 2756.2      | 2770.3      | 1939.2      | 1648.3      | 1351.6      |
| Smart phone       | 1775.2      | 2449.8      | 3797.2      | 6645.1      | 7309.6      | 7894.4      |
| Mobile Phones     | 4504.4      | 5206.3      | 6567.5      | 8584.3      | 8957.9      | 9246.0      |

Source: Euromonitor International, (2016).

Table 1.3  
*Sales of Mobile Phone: Value 2010-2015*

| <b>MYR million</b> | <b>2010</b> | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Feature phones     | 1027.2      | 975.9       | 858.8       | 429.4       | 322.0       | 239.5       |
| Smart phone        | 1821.5      | 2182.1      | 2993.9      | 4700.4      | 4761.5      | 4818.6      |
| Mobile Phones      | 2848.7      | 3158.0      | 3852.6      | 5129.8      | 5083.5      | 5058.2      |

Source: Euromonitor International, (2016).

Table 1.4  
*Forecast Sales of Mobile Phone: Volume 2015-2020*

| <b>'000 units</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Feature phones    | 1351.6      | 1067.8      | 822.2       | 624.9       | 465.5       | 341.2       |
| Smart phone       | 7894.4      | 8233.8      | 8456.1      | 8583.0      | 8634.5      | 8651.7      |
| Mobile Phones     | 9246.0      | 9301.6      | 9278.3      | 9207.8      | 9100.0      | 8993.0      |

Source: Euromonitor International, (2016).

Table 1.5

*Forecast Sales of Mobile Phone: Value 2015-2020*

| <b>MYR million</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Feature phones     | 239.5       | 167.7       | 114.0       | 75.2        | 48.2        | 28.9        |
| Smart phone        | 4818.6      | 4745.3      | 4620.1      | 4502.5      | 4380.3      | 4256.9      |
| Mobile Phones      | 5058.2      | 4913.0      | 4734.1      | 4577.7      | 4428.5      | 4285.8      |

Source: Euromonitor International, (2016).

To further support this market trend, Euromonitor International (2016) indicates that demand for mobile phones will get slower and sales will be facilitated mainly by the replacement and upgrading existing mobile phones due to high penetration rate of mobile phones towards the end of 2015. Thus, the market is expected to become saturated as there will be fewer new customers. Since there are not many new customers in matured mobile market, it is important for mobile phone brand owners to nurture and retain their profitable existing customers. This necessitates strengthening customers' brand loyalty which will prevent them from going into the next stage of product life cycle i.e. decline stage.

To sum up, mobile phone industry in Malaysia is among the emerging industries yet the mobile phone brand owners do not seem to be able to survive without maintaining customers' brand loyalty.

## **1.2 Problem Statement**

In Malaysia, as has been discussed above, the mobile phone market is characterized as highly competitive market and is forecasted to reach its maturity stage over the coming years (Euromonitor International, 2016). Given the immense competition and

market saturation expected over the coming years, the best core marketing strategy in mobile phone industry now would be to retain and engage existing customers by reinforcing brand loyalty. In fact, Gul (2014) pointed out that it is necessary to develop brand loyalty to cope up with intense competition and saturated market situations. Therefore, it is mandatory for mobile phone brand owners particularly those in Malaysia to know the driving forces of brand loyalty by the customers. This study therefore provide conceptual insights and empirical evidence on what drives mobile phone brand loyalty among customers in Malaysia.

On the economic front, telecommunication industry in Malaysia plays an important role in promulgating national gross domestic products (Rosli, Said & Fauzi, 2015). In fact, Malaysia's telecommunication industry has performed extremely well in 2013, contributing 4.9% to its GDP (Talent Corporation Malaysia, 2014). In addition, this industry has invested RM8939.6 million in the year of 2015 (Malaysia Investment Development Authority [MIDA], 2016). Hence this industry could be perceived as one of the major contributors to Malaysia's GDP and is characterized by vibrant growth and development. An analysis by Department of Skills Development under the Ministry of Human Resources Malaysia (2012) indicated that the telecommunication industry in Malaysia is mainly driven by mobile phone segment. Similarly, Market Watch (2012) also reported that the telecommunication industry in Malaysia has been led by the booming mobile phone market. This clearly shows that mobile phone segment is the core part of telecommunication industry in Malaysia. Thus, issues in mobile phone industry such as severe competitive business environment and the possibility of reaching maturity stage in the future may affect the overall development

of Malaysia's telecommunication industry and thereby can impact the nation's economic growth. Addressing aforementioned issues in mobile phone industry, according to experts, should be done by centering on the enhancement of brand loyalty (Gul, 2014; Karjaluoto, Jayawardhena, Leppaniemi & Pihlstrom, 2012). To sum it up, mobile phone industry in Malaysia is economically vibrant and promising sector and, therefore, this study of brand loyalty in this sector appears to be important and worthy of investigation.

As far as brand loyalty studies in mobile phone sector are concerned, Petruzzellis (2010) indicated that there is apparently little literature to suggest that research has been conducted on customers' loyalty towards their mobile phone brands. Recent study by Lin, Huang and Hsu (2015) also surprisingly indicated that much less research has been done to understand customers' repetitive purchase of the same brand mobile phone. Correspondingly, Lam and Shankar (2014) pointed out that researchers have extensively examined determinants of brand loyalty in general yet there is little evidence of such research in mobile phone in particular. Their study further highlighted that prior research focused on only one or two key drivers of mobile phone brand loyalty (e.g. brand satisfaction and brand trust) in isolation rather than offering a comprehensive set of drivers in an integrated manner. Hence comprehensive brand loyalty studies are still needed specifically in mobile phone sector for better understanding about the formation of brand loyalty.

Despite the need of brand loyalty studies in mobile phone sector, many of previous researchers have devoted considerable attention on loyalty studies in telecommunication services (e.g. Reuver, Nikou & Bouwman, 2015; Yee, Ling &

Leong, 2015; Kim, Chang, Park & Lee, 2015; Shin, 2015; Suthar, Lathangi, Pradhan & Suthar, 2014; Abrantes & Chaipoo Pirutana, 2014; Martey, 2014; Ratnesh & Kansal, 2013; Saeed, Nisar, Lodhi, Ahmad & Arshad, 2013; Quoquab, Basiruddin & Rasid, 2013; Ariff, Fen & Ismail, 2012; John, 2011; Jahanzeb, Omotayo, 2011; Fatima & Khan, 2010) compare to mobile phone context. One reason of this sharp contrast may lie in the conventional assumption that mobile phone brand loyalty is not very different from the loyalty process of telecommunication service. This assumption needs to be reconsidered in the case of mobile phone due to the fact that mobile phone is product and telecommunication is service. In fact, many argue that due to vital theoretical and practical differences between marketing of good and services, findings in the area of product loyalty cannot be generalized to service loyalty (Pan et al., 2012). This is because reasons for remaining loyal in a service setting might be different from those in a product setting. Therefore, significant opportunities exist for brand loyalty studies in the context of mobile phone.

It should also be noted that one of the hurdles in studying brand loyalty is the absence of a consensus on the concept of loyalty. In the extant literature, there are two schools of thought when it comes to conceptualization of brand loyalty. Some researchers (e.g. Kandampully & Suhartanto, 2000; Anderson & Srinivasan, 2003; Tellis, 1988; Ehrenberg, Goodhardt & Barwise, 1990) address brand loyalty strictly from behavioral approach which is based on customers' same brand purchasing overtime. Yet among another stream of research, the researchers postulate brand loyalty from the attitudinal approach which is based on favorable attitude formation towards a brand. To date, a theoretical conflict exists in capturing the concept of loyalty either attitude-

based or behavioral-based (Han, Kim & Kim 2011; Pan et al., 2012). Therefore, in order to avoid the criticism associated with a single approach to investigate brand loyalty (either attitudinal or behavioral), the current study investigates brand loyalty by utilizing Oliver's (1997) four stage loyalty model. According to Steven, Gary and Timothy (2006), loyalty concept are well established in more capitalized way in Oliver's (1997) four stage loyalty model because it adequately captures both attitudinal and behavioral approaches. Oliver's four stage loyalty model (1997) theorizes that customers' brand loyalty consists of both attitudinal and behavioral dimensions incorporated into a process of four key stages. In particular, attitudinal loyalty develops via three stages i.e. cognitive loyalty, affective loyalty and conative loyalty and behavioral loyalty or action is the outcome of this sequential process (Oliver, 1999). Hence current study builds a robust model on the basis of Oliver's four stage loyalty model (1997) in order to provide a clearer understanding of brand loyalty formation particularly in mobile phone setting.

In this study, the major constituents of each loyalty stage in Oliver's model that is relevant to mobile phone context such as cognitive loyalty (utilitarian value and hedonic value), affective loyalty (brand satisfaction and emotional attachment), conative loyalty (brand trust) and action loyalty (brand loyalty) were examined sequentially in order to provide a comprehensive model that explains the formation of mobile phone brand loyalty. However, the major focus of past research studies has been on the variables such as utilitarian value and hedonic value (e.g. Chang, 2013; Chai, Malhotra & Alpert, 2015; Saeed et al., 2013), brand satisfaction (e.g. Lee, Moon, Kim & Yi, 2015; Matzler, Strobl, Thurner & Fuller, 2015; Lin et al., 2015),



emotional attachment (e.g. Jang, Kim & Lee, 2015; Theng So, Grant Prasons & Yap, 2013; Hyun & Kim, 2012) and brand trust (e.g. Abrantes & Chaipoo Pirutana, 2014; Kim & Monica, 2014; Mosavi & Kenarehfar, 2013) as direct driving forces of brand loyalty. Yet these studies have seldom considered sequential process of these variables in formation of brand loyalty. Therefore, there is a dearth of knowledge about the nature and direction of relationships among these drivers and how they form brand loyalty particularly in mobile phone market. Hence the present study explores the relationship of utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust; and brand loyalty sequentially for better comprehension of the theoretical mechanism of the loyalty formation.

Furthermore, according to Blut, Evanschitzky, Vogel and Alert (2007), although Oliver's four stage loyalty model has been subject to various empirical examinations, however researchers have largely neglected the issue of moderator variable in Oliver's model. In addition, several studies (e.g. Anderson & Srinivasan, 2003; Han, Back & Barrett, 2009; Kim et al., 2011) also have indicated that the strength of the relationship among the factors of cognitive loyalty, affective loyalty, conative loyalty and action loyalty is under the influence of certain variables. In fact, Oliver (1999) pointed out that the relationship of the cognition, affection, conation and action can be possibly strengthened or weakened by the interaction of the potential sustainers (reputation / inertia) or vulnerability (persuasive / trial). Furthermore, recent study by Lin et al. (2015) also raised concerns about how a customer moves from conative loyalty to action loyalty and highlight the need for further investigation. There is, therefore, the

need for investigation of the moderating variable in Oliver's four stage loyalty model particularly between conative and action loyalty.

The final stage of loyalty (action) would be eventually achieved when a strong facilitator such as brand reputation i.e. a product's capacity to be embedded in social network is present (Oliver, 1999). Brand reputation makes the customers feel that they are part of preferable social groups and thereby they become determined defenders of the brand (Oliver, 1999). Despite Oliver's insistence on such aspect of loyalty formation, to the best of researcher's scope of search, no research has yet empirically tested the possible moderating role of brand reputation in the formation of brand loyalty. As a matter of fact, most of the prior studies (e.g. Gul, 2014; Kuenzel & Halliday, 2010; Mahasuweerachai & Qu, 2015; Walsh, Mitchell, Jackson & Beatty, 2009) have traditionally positioned brand reputation as a predictor of brand loyalty. This clearly shows that the extant literature has paid little attention to these different perspectives of the role of brand reputation. Thus, this situation represents one of the gaps in current literature about the possible moderating role of brand reputation in brand loyalty formation (action). This special analysis of moderating effect of brand reputation on brand loyalty fills that void of the theory.

Furthermore, reports about the impact of brand trust (conative) on brand loyalty (action) are inconsistent. Many research studies assert (e.g. Mosavi & Kenarehfard, 2013; Ladhari & Leclerc, 2013; Malik, Naeem & Munawar, 2013; Gecti & Zengin, 2013; Forgas, Palau, Sanchez & Huertas-Garcia, 2012; Zehir, Sahin, Kitapci & Ozcahin, 2011; Lin & Lee, 2012) that brand trust leads to brand loyalty. However, several other studies (e.g. Rafiq, Fulford & Lu, 2013; Eid, 2011; Hosseinei & Nahad,

2012) show that brand trust does not lead to brand loyalty. Further research is therefore necessary to understand this ambiguity. Perhaps, one possible explanation for these inconsistent results lies in some moderating variables that influence the relationship between brand trust and brand loyalty. Therefore, in this study, moderating effect of brand reputation is examined to give an explanation for the lack of inconsistency in the relationship between brand trust and brand loyalty found in prior studies. The construct of brand reputation has been coined as an exploratory approach in elaborating upon the brand trust and brand loyalty path.

In summary, this research study is an attempt to unveil the mobile phone brand loyalty model by integrating the major constituents of each loyalty stage in Oliver's (1997) model such as utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and brand loyalty in a consecutive manner and by incorporating brand reputation as moderator in order to provide more refined understanding about the formation of mobile phone brand loyalty in an integrated manner.

### **1.3 Research Questions**

The mentioned problem statement has been translated into the following research questions to facilitate the research process:

1. Do utilitarian value and hedonic value influence brand satisfaction?
2. Do utilitarian value and hedonic value influence emotional attachment?
3. Do brand satisfaction and emotional attachment influence brand trust?
4. Does brand trust influence brand loyalty?

5. Does brand reputation moderates the relationship between brand trust and brand loyalty?

#### **1.4 Research Objectives**

Stemming from the aforesaid five research questions, the research objectives framed for this study are as follows:

1. To investigate the relationship of utilitarian value and hedonic value with brand satisfaction.
2. To investigate the relationship of utilitarian value and hedonic value with emotional attachment.
3. To investigate the relationship of brand satisfaction and emotional attachment with brand trust.
4. To investigate the relationship between brand trust and brand loyalty.
5. To assess the moderating effect of brand reputation on the relationship between brand trust and brand loyalty.

#### **1.5 Scope of the Study**

This study focuses on investigating the underlying factors of mobile phone brand loyalty formation in Malaysia from the standpoint of Oliver's four stage loyalty model (1997) i.e. cognitive (utilitarian value and hedonic value), affective (brand satisfaction and emotional attachment), conative (brand trust) and action theorization of loyalty. The study location is confined to Klang Valley. The rationale for focusing on the Klang Valley in this study is, firstly, because Klang Valley is most populated region in Malaysia. It is also the national hub of administration, commerce, industries and

education (Peng, 2012; Yasin & Zahari, 2011). Therefore, people from diverse backgrounds such as different education level, income level and household size may reside in Klang Valley, thereby the mobile phone users who reside in Klang Valley appear to be reasonable respondents for this study. Secondly, Klang Valley has registered highest mobile phone users growth with 30.2% in the year of 2014. Since the focus of this study is to examine the relationship between utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and mobile phone brand loyalty in a consecutive manner, therefore the mobile phone users in Klang Valley are more suitable to infer generalizable results. Individual users of mobile phones were unit of analysis in this study.

### **1.6 Significance of the Study**

This study has made theoretical and practical contribution to the existing body of knowledge and policy making, respectively.

From a theoretical perspective, the findings of this study extend Oliver's (1997) four stage loyalty model by providing empirical evidence on the linkage of utilitarian value and hedonic value (cognitive loyalty); brand satisfaction and emotional attachment (affective loyalty); brand trust (conative loyalty) and brand loyalty (action loyalty). These findings enrich existing literature on brand loyalty, particularly in mobile phone context. Over the past years, researchers have primarily concentrated on these variables as direct determinants of brand loyalty and yet their relationship in a sequential process in formation of brand loyalty remains under explored. This implies that researchers have largely neglected the sequential process of loyalty development.

Hence this study fills the gap by examining utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and brand loyalty in consecutive manner.

Additionally, current study also contributes to the existing body of knowledge by incorporating brand reputation as moderator in Oliver's (1997) four stage loyalty model. Within the scope of this research, this study appears to be one which employs brand reputation as moderator in loyalty studies. Previous studies concerning brand reputation in loyalty studies (e.g. Gul, 2014; Kuenzel & Halliday, 2010; Mahasuweerachai & Qu, 2015; Walsh et al., 2009) have extensively investigated its role as independent variable rather than moderator variable. Hence this study amplifies the understanding of brand loyalty researchers about the moderating role of brand reputation in determining brand loyalty.

Given limited studies on mobile phone brand loyalty (Lin et al., 2015; Petruzzellis, 2010; Lam & Shankar, 2014) and lack of clear understanding about attitudinal or behavioral loyalty formation process (Han et al., 2011; Pan et al., 2012), this study appears to be a useful tool for future researchers in the area of mobile phone brand loyalty. To sum up, this study has made contribution to enhance the theoretical foundation of brand loyalty formation in the context of mobile phone.

On the practical front, contribution of this study is obvious because the resulting outcomes can be utilized as guidelines for brand development strategy by mobile phone brand owners. Firstly, current study informs mobile phone brand owners that customers' loyalty toward a mobile phone brand just doesn't happen but it is a four

stage process. During this process, high level of hedonic value raises customer's brand satisfaction and customer's emotional attachment towards the brand, which then leads to customers' brand trust. Building on this process, brand trust contributes to enhanced brand loyalty among mobile phone customers. Secondly, the empirical evidence of current study signifies to mobile phone marketers that reputation of the brand can be a facilitator in generating a customer's ultimate loyalty. This will assist the mobile phone brand owners, particularly those in Malaysia in understanding the relative importance of determinants of brand loyalty and help in effective allocation of marketing resources. As a result, mobile phone brand owners can draw up more effective customer retention strategies that may significantly affect their mobile phone brand loyalty among the customers. In this regard, mobile phone brand owners will be able to maintain their market share in highly competitive situations. Moreover, mobile phone brand owners will be able to prolong their business and prevent them from going into next decline stage when the market enters into the maturity stage as forecasted by Euromonitor International (2016).

This study also generates benefits to the government by contributing to Malaysia's economic growth. Telecommunication industry in Malaysia is a significant contributor to its economy (Rosli et al., 2015). However, the telecommunication industry is mainly driven by mobile phone segment. Therefore, issues in the mobile industry can affect the overall development of telecommunication industry in Malaysia and thereby affect Malaysia's economic growth and development. There are two issues that have been identified in Malaysia's mobile phone industry. Firstly, due to the stiff competition, mobile phone manufacturers' market share is following fluctuating and

declining trend, indicating that the mobile phone industry is undergoing high levels of brand switching among customers (Euromonitor International, 2016). Secondly, the mobile phone industry is expected to reach its maturity stage over the coming years (Euromonitor International, 2016). Since, brand loyalty is the best core marketing strategy to rectify the aforementioned issues, the findings of this study will help to enhance growth and development of the mobile phone industry. This would further lead to expansion of telecommunication industry and thereby contribute to Malaysia's economic growth.

Furthermore, this study also extends recommendations to the policy makers in Malaysian Communications and Multimedia Commission (MCMC) who are interested in helping build the brand loyalty of national brands in Malaysia. Such policy making requires research based information regarding the determinants that affect customers' mobile phone brand loyalty. Findings of this study will fill in this knowledge-based practical gap and facilitate the policy makers in addressing issues of customer loyalty in mobile phone industry and enable national regulatory policy's support for national champions in Malaysia's mobile phone industry.

### **1.7 Definitions of Variables**

Given below are conceptual definitions of the variables investigated in present study.

Utilitarian Value primarily refers to instrumental, functional and practical usefulness or benefits derived from a product (Voss, Spangenberg and Grohmanm, 2003).



Hedonic Value in this research refers to aesthetics, experiential, or sensory related benefits from using a product (Voss et al., 2003).

Brand Satisfaction is a customer's overall evaluation process of the perceived discrepancy between expectations and actual brand consumption experiences (Oliver, 1999).

Emotional Attachment refers to self-implicated emotion-laden bond between consumer and brand (Thomson, MacInnis & Whan Park, 2005; Lam & Shankar, 2014).

Brand Trust is defined as confident expectations of the brand's reliability and intentions (Delgado-Ballester, 2004).

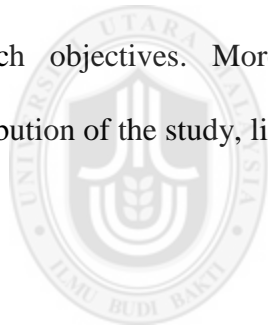
Brand Reputation is aggregate perceptions about the salient characteristics of a brand (Morgan-Thomas & Veloutsou, 2013).

Brand Loyalty is defined as 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).

## **1.8 Organization of Thesis**

This thesis contains five chapters. **Chapter one** presents an overview of the background of the study, research problem, research questions, research objectives, scope of the study and significance of the study. **Chapter two** contains a comprehensive review of literature about mobile phone industry in the world, mobile

phone industry in Malaysia along with elaboration and review of relevant concepts of brand loyalty. The chapter also offers explanation of the underpinning theory i.e. Oliver's four stage loyalty model for clearer understanding of mobile phone customers' loyalty formation process. Then the adoption of the paradigms has been discussed in detail in the review of past studies. Finally, chapter two also includes research model and the explanation of hypotheses development. **Chapter three** details out employed research methods that includes research design, data collection procedures and data analysis strategy among others. **Chapter four** consists of explanation of data analysis and results of the study. **Chapter five**, finally, is comprised of major findings of the study that are summarized according to the research objectives. Moreover, this chapter contains theoretical and practical contribution of the study, limitations and recommendations for future research.



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## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter starts with an overview of mobile phone industry worldwide and also specifically in Malaysia, concept related to loyalty and theories in brand loyalty. Subsequently, the review continues with theory that underpin the research model. It is Oliver's (1997) Four-Stage Loyalty Model as well as the literature that relates to the drivers of brand loyalty formation that has been selected in this study and the moderating role of brand reputation. Then this chapter continues with research model with hypotheses which is formulated based on the literature that supports the research framework. Finally, the chapter ends with a summary.

#### **2.1 Overview of Mobile Phone Industry**

The current era is of information technology and advantages of information technology have affected nearly all countries across the globe. Mobile phone has emerged as a revolutionary invention of technology and modern science that enhanced the communication networks of people around the world. In addition, mobile phone is a wonderful technology that enables a person to communicate from corner to another from everywhere. The contribution of mobile phone therefore has upgraded the standard living of people.

Before mobile phones were invented, telegraph and telephone are the medium of communication. In 1837, Samuel Morse invented telegraph, a system of conveying messages from distance through a wire (History.com Stuff, 2009a). Further, a code bearing Morse name developed by him and assigned the set of dots and dashes to English alphabet each letter, then permitted for simple communication of complex messages across telegraph lines. In early 1870's, Alexander Graham Bell who was doing some experiments with telegraph realized that human voice transmission over a wire with usage of electricity might be possible. In 1876, the patent for telephone was issued to him (History.com Stuff, 2009b). At the beginning of last century, Guglielmo Marcony invented wireless in the communication system (History.com Stuff, 2009c). With his wireless invention, the necessity of adding wire by receiving and transferring were not needed. Finally, wireless technologies specifically mobile phone has brought revolutionary changes in communication system, people personal and social lives.

In 1973, Martin Cooper, the former inventor of Motorola, also familiar as “father of cellphone” made first mobile phone. The first phone made by Cooper weighed about 1.1kg and measured in 228.6x127x44.4mm. Further, user of this mobile phone gets only 30 minutes of talk time and the device took nearby 10 hours to charge completely (MSC Malaysia, 2016). Subsequently, mobile phones evolved over four generations starting with the first generation ("1G") systems which supported simultaneous phone calls, though still depending on analog technology. In this modern era, users entering into the digital 4G+ phase with Long-Term Evolution (LTE) and LTE-Advanced technologies. The limited usage of mobile phones regarding sending short messages and phone calls already passed. Nowadays, mobile phones are not only used for

making and receiving calls, but mobile phones have become a multi-functional and high powered consumer product with digital camera, video (MP4) playback, GPS navigator, eBook reader, Bluetooth, Wi-Fi connectivity, near field communication (NFC), social networking platform, gaming device, music (MP3), and email account. In addition to the extra attributes, the latest smartphones also weigh about 130 grams and have a battery life up to 390 hours (Roets, Bevan-Dye & Viljoen, 2014). As a result, mobile phones have become a need of the hour in this era and it has taken center stage in everyone's daily life.

According to Lee (2014), Asian countries are considered to be the mobile phone center of the world including Malaysia. A report on mobile phones in Malaysia by Euromonitor International (2014) stated that the mobile phone market in Malaysia is flooded with a lot of choices ranging from the cheapest model mobile with basic features to iPhones that has the most sophisticated or advanced technologies. It is also reported that Malaysians high dependency or reliability on mobile phones is one of the main factor to hold the vigorous growth of mobile phones' sales. In Malaysia, mobile phone has become an important gadget whereby Malaysians can no longer spend a day without mobile phones (Mohd Suki, 2013).

Euromonitor International, (2016) reported that the mobile phone industry in Malaysia has seen enormous growth from 2010 to 2015 and the penetration rate of mobile phones were high in the end of 2015. However, the report further forecasted that the sales of mobile phone decrease from the year of 2016 to 2020, indicating that the market is expected to reach its maturity stage. In addition, it is reported that the world's top mobile phone brand owners such as Samsung, Nokia, LG and Sony fail to

sustain their market due to severe competition and few well established mobile phone players such as Blackberry, Motorola and Sony Ericsson withdraw from the market. It should be noted that mobile phone brand owners are facing severe competition and the mobile phone industry is expected to reach its maturity stage over the coming years as discussed briefly in section 1.1. According to Gul (2014), the best core marketing strategy in the highly competitive market and market saturation would be to retain existing consumers through strengthening brand loyalty. Therefore, brand loyalty appears to be important in Malaysia mobile phone industry. The concept of loyalty will be discussed more briefly in the next section.

## **2.2 Overview of Loyalty**

Creating loyal customers occupy a central place in almost any marketing department and loyal customers appear to be one of the key engines for a business success for years (Reichheld & Teal, 1996). Loyalty is of particular interest of brand owners because it will be higher cost of five to seven times to compete for new customer than retaining an existing customer (Berry & Parasuraman, 1991). Researchers also have pointed that companies can increase their revenue when they have loyal customers. For instance, customer loyalty increases profit and growth to the level that with slight increase of loyal customers such as 5% can boost up profitability by 30% to 85%, however, depends on the industry involved (Gefen, 2002). In addition, loyal customers are less price sensitive and they are typically ready to pay the high price (Rowley & Dawes, 2002). Further, Reichheld and Sasser (1990) indicate that loyal customers are also frequent towards purchasing, bring new customers to the firms and try firm's other product or services. In line with Delgado-Ballester and Munuera-Aleman

(2001), the presence of loyal customer base offers companies to better respond to their competitive threats. Moreover, customer loyalty establishes justification for a company to scrutinize its value creation program, marketing strategy and relationship quality improvements activities (Reichheld & Teal, 1996). The loyalty importance has been recognized widely in literature of marketing. Overall, loyal customers have been considered as a key for a business's success since long time ago. Therefore, understanding the concept of loyalty is extremely important

Loyalty is a very vague term where there were diverse thoughts and definitions have been discussed by prior researchers. Three conceptualization of loyalty has been discovered in literature: behavioral loyalty, attitudinal loyalty and composite loyalty (Han et al., 2011).

In the beginning of loyalty studies, loyalty was centered on behavioral perspective entailing repeat buying or behavioral frequency and relative volume of same brand purchasing (Frank, 1967; McConnell, 1968). According to Mellens, Dekimpe and Steenkamp (1996), behavioral loyalty (repeat purchase) may be influenced by convenience, stock out, low income and less choice. Jacoby and Chestnut (1978) further explained that repeat purchase as an indicator may be invalid due to the fact that buying coincidentally or with preference for purchasing with ease could mask loyalty if customers were multi brand loyal. In fact, Day (1969) pointed out that the sole behavioral perspective on loyalty do not discriminate between spurious loyalty and true loyalty. Therefore, researchers (e.g. Jacoby & Chestnut, 1978; Dick & Basu, 1994; Oliver, 1999; Anderson & Srinivasan, 2003; Han & Back, 2008) criticized behavioral loyalty approach for not being able to capture the true loyalty where an

individual's rebuying behavior would not always result from psychological commitment to a particular brand or product through an evaluative or decision making process.

To overcome the shortcomings of behavioral approach, in one stream of researcher, theorists evaluated customer loyalty by focusing on attitude based approach (Anderson & Srinivasan, 2003; Han & Back, 2008; Han & Ryu, 2009). The attitudinal perspective believes that continuous purchasing of a brand must be accompanied with a positive attitude towards the brand. (Amine, 1998). However, attitudinal loyalty is not an accurate representation of reality because customer's favorable attitude upon a specific brand that involves positive evaluation and psychological commitment may not always lead to repurchase (Dick & Basu, 1994; Oliver, 1999; Back & Parks, 2003). Therefore, the attitudinal approach has been criticized because this approach has lack of anticipating power towards an actual purchase behavior (Bennett & Rundle-Thiele, 2002) and has overlooked a basic component of repeat purchase behavior (Pritchard & Howard, 1997).

Thus, loyalty cannot be adequately explained either by behavioral or attitudinal aspect. Finally, many prominent researchers in loyalty agree and insisted that customer loyalty should be measured with both attitudinal and behavioral aspects which is known as composite loyalty (Jacoby & Chestnut, 1978; Dick & Basu, 1994; Oliver, 1997; Bowen & Chen, 2001; Kandampully & Suhartanto, 2003; Back & Parks, 2003; Evanschitzky & Wunderlich, 2006; Bandyopadhyay & Martell, 2007; Karjaluoto et al., 2012; Nikhashemi, Tarofder, Gaur, & Haque, 2016; Dias, Schuster, Talamini, & Révillion, 2016; Mubarik, Chandran & Devadason, 2016; Jeon & Jeong, 2017). The



composite loyalty was a breakthrough and became the pillar for subsequent studies on loyalty. Oliver (1999) and Dick and Basu (1994) have enriched the body of knowledge in the loyalty by conceptualizing composite loyalty into models. According to this theories, attitudes are likely to precede behavior. These two theories will be discussed in the next section.

### **2.3 Dick and Basu (1994) model of loyalty**

Loyalty is the strength of the relationship between a person's relative attitude towards an entity (store/ brand/ vendor / service) and his/her repurchase behaviour (Dick & Basu, 1994), Antecedents of relative attitude consist of cognitive, affective and conative, which contribute to loyalty along with perceptual, motivational and behavioural consequences. In addition, the relationship between repeat purchase and relative attitude is moderated by situational factors and social norms. The conceptual framework of Dick and Basu's (1994) is presented in figure 2.1.

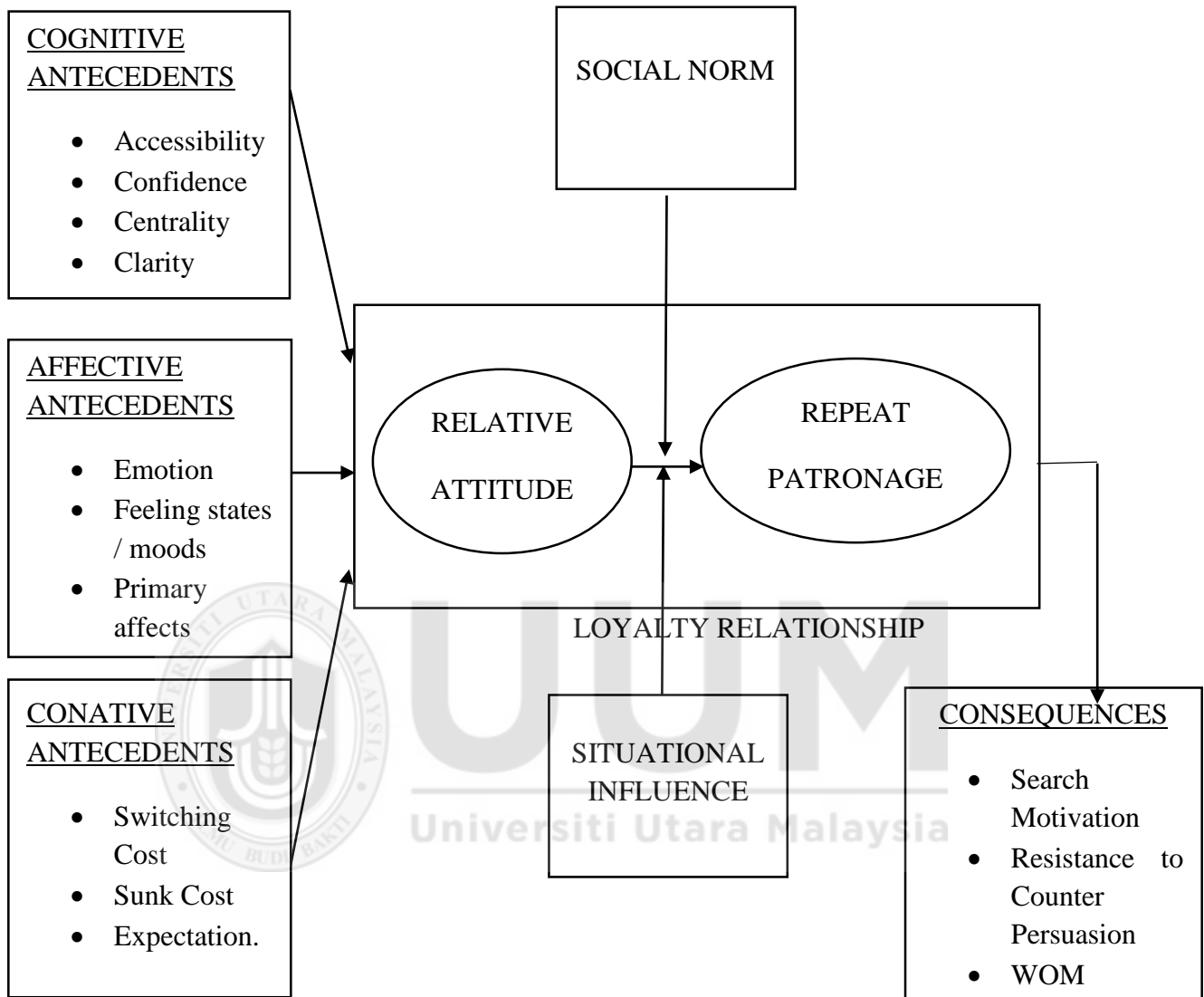


Figure 2.1  
*Dick and Basu's Model*  
 Source: Dick and Basu, (1994).

Dick and Basu (1994) further explained that cognitive is based on information determinant such as brand belief. Affective is related to feeling states involving the brand. In addition, conative is those associated with behavioral dispositions toward the brand. For loyalty, may be each of the factors is important towards defining and understanding the nature of attitude and its association with repurchase. In case the cognitive, affective and conative constructs are constantly supportive towards a brand, the patronage behavior degree increase yet Dick and Basu (1994) highlight that the relative impact of the antecedents could vary, depending on the social norm and situational factors.

Social norm is related to the social pressure whether to execute or not to execute the behavior. Situational factors are the case of stock outs of preferred brand, favorable deals (reduced prices) of competing brands and in store promotion by competing brands which enhance the salience of the alternative brands compare to usually preferred brand by the customer. According to Dick and Basu (1994), these two factors namely social norm and situational factors are potential extraneous events that may cause inconsistency between attitude and behavior relationship.

Overall, Dick and Basu (1994) conclude that incorporating the relative attitudes notions will likely lead to the increased predictive ability of loyalty models and social norm and situational factors are important moderator of the relationship between relative attitude and repeat purchase.

It should be noted that Garland and Gendall (2004) indicated that although Dick and Basu (1994) conceptualize the loyalty construct, but they do not operationalize it and

it has no empirical basis on its predictive ability. Furthermore, East, Sinclair and Gendall's (2000) highlight that there is no reliable evidence and support for Dick and Basu's typology. This clearly shows that Dick and Basu's (1994) loyalty model remain conceptually based with lack of empirical evidence to support the model. In addition, another study by Harris and Goode (2004) pointed out that although Dick and Basu (1994) makes seminal a contribution explaining loyalty yet it is the work of Oliver (1999) that constitutes the most comprehensive evaluation of the loyalty formation. According to Steven et al. (2006), loyalty concept are well established in more capitalized way in the Oliver's (1997) four stage loyalty model because Oliver's model adequately captures both attitudinal and behavioral approaches. Thus, Dick and Basu's (1994) loyalty model has limited power in explaining loyalty formation compare to Oliver's four stage loyalty model.

More importantly, Oliver's (1997) four stage loyalty model has been pillar of many past studies in investigating customer's loyalty in various research setting such as apparel industry (Matthews, Son & Watchravesringkan, 2014), restaurant service (Han & Hyun, 2012), online flights (Harris & Goode, 2004), hotel industry (Han, et al., 2011; Back & Parks, 2003 ), do-it-yourself (DIY) retail market (Blut, Evanschitzky, Vogel & Alert, 2007; Sivadass & Prewitt, 2000; Yeng & Nik Mat, 2013 ) and tourism destination (Yuksel, Yuksel & Bilim, 2010). Hence it is fair to say that Oliver's four stage loyalty model is the dominant model in brand loyalty studies. Therefore, this study utilized Oliver's four stage underpinning theory. Theoretically, this study appears to be one to investigate the brand loyalty evolution by seeing the major constitutes of each loyalty stage (e.g. cognitive loyalty, affective loyalty, conative

loyalty and action loyalty) in the mobile phone setting. Oliver's four stage loyalty model will be discussed more briefly in next section.

## 2.4 Oliver's four stage loyalty model

Oliver's four stage loyalty model is laid on the continuum of loyalty, cognition – affect – conation – action. Oliver (1999) argues that at each attitudinal phase customer become loyal associating divergent components of attitude development structure. Firstly, customers theorized to become loyal in cognitive sense, then later in an affective manner, further in a conative sense and finally in a behavioural senses, which is known as action. Figure 2.2 presents Oliver's four stage loyalty model.

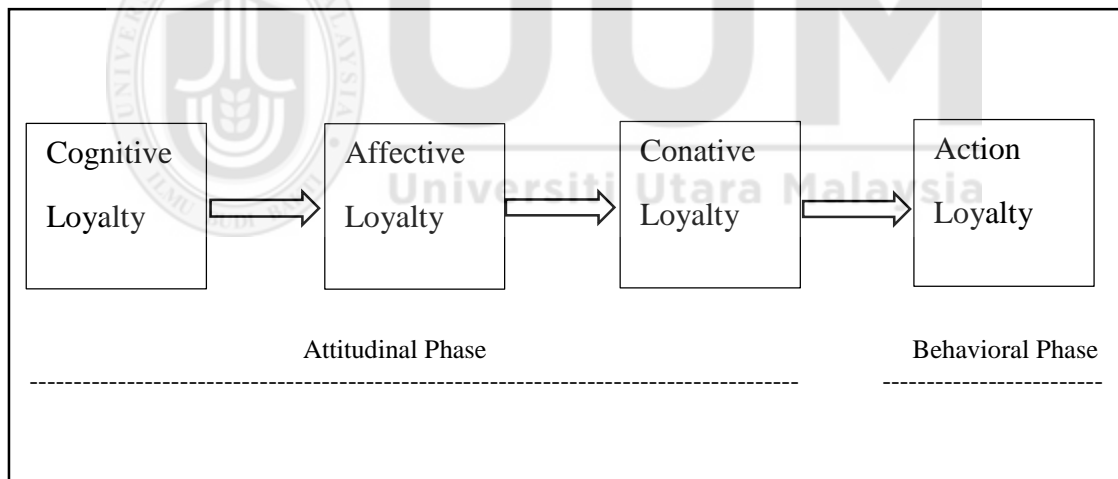


Figure 2.2  
*Oliver's Four Stage Loyalty Model*  
Source: Oliver (1999)

According to Oliver (1999) loyalty development in each stage relates to different factors. The following subsections discussed briefly on the major constituents of each loyalty stage and the importance of the constituents in mobile phone setting.

### **2.4.1 Cognitive loyalty**

Cognitive loyalty is the first stage in attitudinal phase. According to Oliver (1999), cognition is basically based on information obtained through earlier knowledge or recent information based on experience. Oliver (1999) further explained that, in this stage, customers develop loyalty by comparing a preferred brand to its competitive brands based on current information gained through prior knowledge and experiences related to the brand's attributes and performance level (e.g. value namely functional and aesthetic). Also previous studies (e.g. Han & Hyun, 2012; Han et al., 2011) in consumer behavior and marketing indicated that cognitive loyalty merely related to perceive value involving functional (utilitarian) or psychological aspects (hedonic). Moreover, Voss et al. (2003) pointed out that utilitarian value and hedonic value are experienced at the cognitive level.

In mobile phone context, perceive value comprise of utilitarian value and hedonic value (Lin et al., 2015). According to Lam and Shankar (2014), mobile phone users seek both utilitarian value and hedonic value because mobile phone offers both utilitarian benefits (e.g. mobile phone can make user more effective, mobile phone capable of serving useful purpose, mobile phone is very helpful and etc.) and hedonic benefits (e.g. mobile phone is fun, mobile phone makes the user excited, and etc.). As such, cognitive stage of loyalty in mobile phone context mainly consist of perceive value namely utilitarian value and hedonic value. However, Oliver (1999) pointed out that customer loyalty at cognitive stage is shallow and weak because the depth of loyalty is not more than mere performance whether functional or aesthetic. Therefore, customers are expected to switch to competing brands when competing brands provide

superior products. Thus, manufacturers desire a greater level of loyalty which is affective loyalty.

#### **2.4.2 Affective Loyalty**

Affective loyalty is second phase loyalty which is stronger sense of loyalty that is not easily abandoned, however, aforesaid cognitive loyalty is the weak loyalty. Oliver (1999) further indicated that loyalty at this point leads towards the customer's degree of affection (liking) for the brand and customers overall evaluation of it. Previous researchers (e.g. Han, Back & Barrett, 2009; Han et al., 2011) pointed out that affective loyalty consists of emotions and satisfaction because these two factors are important in forming customer's attitudinal loyalty. According to Han and Back (2007), customer's satisfaction toward a product or service has traditionally theorized as demonstrative responses toward a product or service. Nonetheless, customer's satisfaction toward a brand is not the affect laden feeling (liking) generated from consumption experience but customer's overall evaluation whether brand or product experience meets their expectations or not (Hunt, 1977). In line with this, the general consensus in defining satisfaction and emotional attachment is that emotional attachment is affect laden bond and passionate between an individual and a specific product or brand (Bowlby, 1979) and satisfaction is customer's overall valuation process regarding perceived discrepancy between actual and expectations product/service/brand consumption experiences (Oliver, 1999). This clearly shows that affective stage of loyalty mainly consists of brand satisfaction and emotional attachment.

In the mobile context, customer's satisfaction toward a mobile phone brand appear to be important (Kim et al., 2016). According to Lam and Shankar (2014), because customers use mobile phone frequently for various purposes, customer's overall evaluation between the level of expectation and actual experience from using a mobile phone brand is important. Further, Lam and Shankar (2014) indicated that since mobile phone is a constant companion where mobile phone users habitually carried their mobile phone and used them for personal and important purpose, customers' can become emotionally attached toward their mobile phone brand over time. Therefore, it resulted that affective stage of loyalty in mobile phone industry comprise of customer's satisfaction and emotional attachment toward their mobile phone brand. According to Oliver (1999), affective is an outcome of cognitive loyalty and he further explained that customer loyalty is still remain subject to switching mainly caused by the enhancement attractiveness of competitive brands or offering. In fact, according to Oliver (1999), data validated that substantial number of brand turncoats claim to have been satisfied with their brand previously. Therefore, it will be more alluring if the clients were loyal at a more profound level of commitment which is known as conative loyalty.

#### **2.4.3 Conative Loyalty**

Conative loyalty (behavioral intention) is the third loyalty stage and customer's loyalty in this stage is deeper than in the affective stage. According to Oliver (1999), affective loyalty induces conative loyalty and its elements, indicating that repeated episodes of positive affect increase conation. Oliver (1999), described conative as an intention or commitment of brand repurchase and it's more similar to motivation. Practically,



customers desire for brand repurchase, but unlike any “good intention”, this desire is just a foreseen yet not turned into action. Taking a cue from previous work by Delgado-Ballester and Munuera – Aleman (2005) on brand trust, brand trust is derived from two important elements of behavior intention such as reliance on the brand (brand reliability) and good intention to the brand (brand intentions). As such, definition of trust, as preserving the relationship by collaborating with exchange partner (brand), likewise willingness to rely on the brand and attribution of good intention to the brand in connection to the consumer advantage and welfare will yield intended positive outcome, does in actual fact reflecting the conative side of loyalty. In fact, Jumaev, Kumar and Hanaysha (2013) indicated that conative loyalty mainly consists of brand trust.

Furthermore, in mobile phone context, because mobile phones are being used to share and store personal information and to perform important tasks, customers are very much concerned whether the firm behind the mobile phone protects their privacy and function appropriately or not (Lam & Shankar, 2014). In fact, Lee et al. (2015) pointed out that mobile phone users are very particular about security and privacy in using mobile phone thereby trust in the mobile phone brand owners is important. This clearly indicates that in mobile phone context, customer’s trust upon the mobile phone brand appear to be important. Thus, brand trust plays a main role in conative loyalty stage in mobile phone setting. According to Oliver (1999), conative (behavioral intention) is influenced by components of affective loyalty and customer loyalty at this stage appear to be stronger than cognitive and affective stage yet still includes

vulnerability, other detrimental factors such as repeated episodes of fault easily reduce customer's trust hence conative loyalty (Oliver, 1999).

#### **2.4.4 Action Loyalty**

In the fourth stage of loyalty is action loyalty, where the behavioral intention in the previous loyalty stage (conative) transformed to actual behavior accompanied with willingness to beat impediments that may avert the action (Oliver, 1999). According to Oliver (1999), customers at this stage are expected to tune out competitors 'messages routinely, have great effort to search for the preferable brand and even ignore the trial of alternative brands. In addition, in this stage, marketers do not need to spend much resources for retaining their customers because theoretically their customers are influenced by inertial rebuying (Oliver, 1999). Jeon and Jeong (2016) further indicated that customers at action stage have great influences to the firm's bottom line as intangible assets, including recommend others to purchase particular brand. Therefore, researchers (e.g. Oliver, 1999; Han et al., 2011; Han and Hyun, 2012) have concluded that true loyalty only can be achieved at this stage and this is the last stage of loyalty. Completing the cognitive (utilitarian value and hedonic value), affective (brand satisfaction and emotional attachment), conative (brand trust) and action (brand loyalty) in a consecutive manner brings the attitude based loyalty model to the behavior of interest, the action of rebuying.

This study gravitates along Oliver's four stage loyalty theory (1999), indicating that customers first become cognitively loyal with brand's value namely utilitarian value and hedonic value, then affectively loyal directed toward the brand's satisfactory

experiences and brand's attachment, thirdly conative loyal with brand trust and finally action loyalty, deep commitment to the action of rebuying. In the next section, the adoption of this paradigm namely utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and brand loyalty linked in a sequential manner will be discussed in detail with the explanation of related past studies.

## **2.5 Perceive Value (Utilitarian Value and Hedonic Value)**

Customer perceive value is what customers receive when they purchase a product or service (Day, 1990). In literature, there are two distinct approaches to conceptualize the customer perceived value, either as one-dimensional or as a multidimensional construct. In line with Zeithaml (1988), one dimensional perceived value is basically known as the customer general appraisal about a product's utility based on perceptions of what is received and what is given. This approach focused primarily the on utilitarian value of the product. Customer perceived value that has been conceptualized as one dimensional is effective and straight forward but the disadvantage of this conceptualization strategy is that it cannot discern the complex and multidimensional nature of perceived value (Sigala, 2006; Chen & Hu, 2010; Lin, Sher & Shih, 2005). Al-Sabbahy, Ekinici and Riley (2004) also support this claim that the one dimension cannot address the concept of perceived value. Rintamaki, Kanto, Kuusela, and Spence (2006) stated that to conceptualize perceived value just as a trade-off between price and utility is not enough to gain competitive advantage.

According to Sweeney and Soutar (2001), understanding that how customers value products and services requires more sophisticated measures. Indeed, Holbrook (1999) suggested that an integrative approach of value concept is imperative. Accordingly, Chen and Hu (2010) mentioned about the complexity of customer perceived value and that customer choice is the result of multiple value perceptions, therefore, a multi-dimensional approach should be considered by researchers and experts for determining value perceptions.

Thereafter, customer perceived value is identified as multidimensional where different researchers interpret it variously in the literature depending on a study's context. For instance, study by Sheth, Newman and Gross (1991) indicated that dimension of customer perceive value in cigarettes context comprise of functional, social, emotional, epistemic and conditional. In addition, Karjaluoto et al. (2012) in context of wireless telecommunication pointed out that customer perceive value is namely based on functional, monetary, social and emotional. Moreover, customer perceive value consist of acquisition, transaction, efficiency, aesthetic, social interaction and self-gratification in the context of hospital service (Chahal & Kumari, 2012). In the context of catalogue and internet shopping, customer perceive value is mainly based on aesthetics (visual appeal and entertainment), playfulness (escapism and enjoyment) and service excellence (Mathwick Malhotra & Rigdon, 2002).

Furthermore, study by Rintamaki et al. (2006) indicated that dimension of customer perceive value in the context of department store shopping comprise of utilitarian (monetary saving and convenience), social (status and self-esteem) and hedonic (entertainment and exploration). Customer perceive value in mobile internet setting

has five dimensions which is based on functional, monetary, emotional, customization and relational (Chuah, Marimuthu & Ramayah, 2013). Study by Yoshida, James and Cronin Jr (2013) stated that utilitarian (monetary and convenience), symbolic (organizational identification and community prestige) and hedonic value (exploration and entertainment) are the dimensions of customer value in context of shopping event. In the context of tourism, study by Sanchez, Callarisa, Rodriguez and Moliner (2006) stated that customer value is a combination of functional, emotional, and social.

Although a number of customer perceive value dimensions have been identified in the literature, the universally accepted perceive value dimensions to consumer behavior in various research context such as shopping (Babin, Darden & Griffin, 1994; Carpenter, Moore & Fairhurst, 2005; Jones, Reynolds & Arnold, 2006), online store (Chiu, Wang, Fang & Huang, 2012), online shopping (Chen & Lee, 2013), banking (Chai, Malhotra & Alpert, 2015), fast casual restaurant (Nejati & Moghaddam, 2012; Ryu, Han & Jung, 2010), smartphone (Dastan & Gecti, 2014) and car (Dhar & Wertenbroch, 2000) are utilitarian value and hedonic value.

Utilitarian value is an outcome of cognizant quest for a planned outcome (Babin et al., 1994). Utilitarian value of a product is primarily refers to functional, instrumental or practical benefits of consumption offerings; it represents customer value as the means to an end (Voss et al., 2003; Chitturi, Raghunathan & Mahajan, 2008; Dhar & Wertenbroch, 2000). In addition, utilitarian value is task oriented, relate to problem solving and the effective achievement of goals (Ryu et al., 2010). According to Overby and Lee (2006), utilitarian value is a comprehensive appraisal of the harmony between utilitarian advantages and sacrifices. On the other hand hedonic value is the

result of spontaneous responses which is more personal and subjective (Babin et al., 1994) such as self-expression, exploration and entertainment (Chandon, Wansink & Laurent, 2000) and that from enjoyment and fun rather than task completion. Hedonic value alludes to a product's appealing, experiential or intangible advantages (Voss et al., 2003; Chitturi et al., 2008; Dhar & Wertenbroch, 2000). In the current study, utilitarian value refers to the overall assessment of functional benefits that a particular brand mobile phone offers to the user and hedonic value refers to the experiential benefits that a particular brand mobile phone offers to the user.

Customer perceive value namely utilitarian value and hedonic value is a central concept in marketing because value has a significant relationship with customer responses such as satisfaction (Yoo & Park, 2016). Satisfaction is affective responses derived from customer's perceive value (Woodruff, 1997). According to Oliver (1999), the tenet of Oliver's four stage loyalty model is that cognitive influence affect, affect determines conative while conative predicts action loyalty. Theoretically, consumer value is categorized as cognition whereas brand satisfaction and emotional attachment represents affect (Oliver, 1999). Given this background, it is reasonable to expect that consumer value is a significant predictor of brand satisfaction and emotional attachment. As a reflection of this, previous studies have shown a linkage between utilitarian value and hedonic value with brand satisfaction and emotional attachment. The following sections discuss on brand satisfaction (section 2.6), the effect of utilitarian value and hedonic value on brand satisfaction (section 2.6.1), emotional attachment (section 2.7) and the relationship between utilitarian value and hedonic value with emotional attachment (section 2.7.1).

## 2.6 Brand Satisfaction

Brand satisfaction has been conceptualized in various ways. According to Hunt (1977), brand satisfaction is conceptualized as evaluation rendered that using a particular brand experiences was great as it should be. Brand satisfaction is also known as an individual's summary judgment process in relation to perceived difference between prior expectations towards a brand and actual brand consumption experience (Oliver, 1980; Tse & Wilton, 1988). In addition, Westbrook and Reily (1983) defined satisfaction towards a brand/product/service as a customers' overall emotional response to the brand/product/service responses. Further, Oliver (1981) stated that brand satisfaction is the synopsis of psychological consequential when prior expectation are met with consumption experience. Basically, all these definitions are reflecting customers' overall positive affect and a customer's overall or cumulative contentment with their exchange partner (brand).

The overall brand satisfaction is defined as cumulative valuation on the total purchase and the customer experience of using a brand with the passage of time (Anderson, Fornell & Lehman, 1994). Also, overall brand satisfaction is often characterized as an overall evaluation between expectations and actual performance of a particular brand product or service (Johnson, Anderson, & Fornell, 1995). On the other hand, transaction specific is an evaluative judgment by the customer instantly after recent post consumption experience (Oliver, 1993). According to Santauridis, Trivellas and Reklitis (2010), transaction specific explains brand satisfaction after specific and each purchase of a brand via assessment made after purchase by comparing expectation and

actual consumption experienced, most is a factor of quality, cost being incurred and price.

Therefore, satisfaction towards a brand can be either transactional-based measures concentrating on evaluation of cost and benefits of the latest post utilization experience or overall brand satisfaction resulting from the series of transactions (Garbarino & Johnson, 1999). According to Czepiel, Rosenberg and Akerele (1974), overall brand satisfaction appear to be more important in applied market research. Furthermore, in mobile phone context, mobile phones are being used continuously instead of one-off usage. Thus, cumulative brand satisfaction is more appropriate in the context of mobile phone, indicating of past, current and future performances (Anderson et al., 1994). In line with this, prior studies in mobile phone context (e.g. Ha & Park, 2013; Lam & Shankar, 2014; Lin et al., 2015; Kim et al., 2016) have conceptualized brand satisfaction as overall brand satisfaction. Therefore, in this study, definition of overall brand satisfaction was used.

In line with Westbrook and Reilly (1983), satisfaction towards a brand is determined by a cognitive valuation process. In this process an individual perception related to a particular brand product or service is compared to the individual values. Oliver (1999) further stated that the tenet of Oliver's four stage loyalty model is the individual's belief about the value that they gained from using a particular brand product or service (cognition) is the predictor of brand satisfaction (affective). Therefore, in this study, customer brand satisfaction is directly influenced by utilitarian value and hedonic value. The following section discusses on the effects of utilitarian value and hedonic value with brand satisfaction in various research settings.



### **2.6.1 Relationship between utilitarian value and hedonic value on brand satisfaction**

Prior studies have examined the relationship between utilitarian value and hedonic value on satisfaction in various research settings. For instance, drawing from a sample of 245 shoppers from United States, Jones, Reynolds and Arnold (2006) found that both utilitarian shopping value and hedonic value had positive influences on satisfaction with retailers yet the coefficient for utilitarian value was less strong than the coefficient for hedonic shopping value. Similar result was reported by the study of Lo and Qu (2015) in context of Hong Kong to test the influence of hedonic and utilitarian shopping value on satisfaction in determining behavioral intention. The authors resulted that both hedonic and utilitarian shopping value significantly affects the satisfaction and the hedonic value had a stronger influence than utilitarian value on overall satisfaction. Also, study by Kesari and Atulkar (2016) endorse the relationship between customer satisfaction and shopping values namely utilitarian value and hedonic value, where both shopping values show positive influence on customer satisfaction. Moreover, study by Sirakava-Turk, Ekinci and Martin (2015) found that utilitarian and hedonic value has positive impact on the tourist's overall shopping satisfaction in predicting destination loyalty. The findings of extant studies on shopping value and satisfaction provide support for linking utilitarian and hedonic shopping value to satisfaction.

Another study by Yoo and Park (2016) among Korean consumers also showed customers who perceive hedonic and utilitarian value satisfied with the mass customized product of which in turn influenced brand loyalty. In addition, Yu, Zo,

Choi and Ciganek (2013) conducted study in Korea examined the influence of customer perceived values of location-based social networking service (LB-SNS) namely utilitarian value, hedonic value and social value on customer satisfaction toward LB-SNS. The evidence from the study suggests that utilitarian value and hedonic value has influence customer satisfaction. However, the researchers stated that hedonic value have strongest relationship with customer satisfaction . Similarly, study by Kim, Galliers, Shin, Ryoo and Kim (2012) empirically supports utilitarian and hedonic values of Internet shopping positively impact customer satisfaction. Extant literature linking customer value namely utilitarian value and hedonic value on satisfaction in online context found that both values impact satisfaction positively.

In the mobile domain, recent study by Hsu and Lin (2016) on the effect of perceived value namely utilitarian and hedonic value on mobile application stickiness and in-application purchase intention found that utilitarian and hedonic value directly affects the satisfaction. Relatedly, Xu, Peak and Prybutok (2015) found utilitarian value and hedonic value positively influence satisfaction in loyalty perspective of mobile application recommendations. This clearly shows that utilitarian value and hedonic value have a positive influence on satisfaction in the mobile domain.

Besides that, a study regarding the effect of utilitarian and hedonic values on satisfaction along with behavioral intentions for dining in fast-casual restaurants in the context of Iran found positive role of values namely utilitarian and hedonic on customer satisfaction (Nejati & Parakhodi Moghaddam, 2013). Similarly, Chitturi, Raghunathan and Mahajan (2008) further reported that customer satisfaction gets positively influenced by the utilitarian value and hedonic value in their study of the car

industry. In terms of airlines setting, a recent study by Kim (2015) on the relationship between utilitarian value and hedonic value with satisfaction among 350 airline passengers in determining passengers' future purchase intention was conducted. The researchers' reported that there is a significant association between utilitarian value and hedonic value with satisfaction for Low Cost Carrier airlines, In regard to Full Service Carrier airlines, researchers' found that hedonic value is a significant predictor of satisfaction, however, utilitarian value is not a significant predictor of customer satisfaction. Table 2.1 shows that the summary of previous research examining the relationship between utilitarian value and hedonic value with satisfaction.

**Table 2.1**  
*The Relationship between Utilitarian Value and Hedonic Value with Satisfaction.*

| <b>Author/Year</b>          | <b>Country</b>   | <b>Area</b>                              | <b>Respondents</b>   | <b>Result</b>             |
|-----------------------------|------------------|--|----------------------|---------------------------|
| Jones et al. (2006)         | United States    | Retailing                                | 245 shoppers         | Significant               |
| Lo and Qu (2015)            | Hong Kong        | Retailing                                | 778 tourists         | Significant<br>(Positive) |
| Kesari and Atulkari (2016)  | India            | Mall                                     | 288 shoppers         | Significant<br>(Positive) |
| Sirakaya-Turk (2015)        | Turkey           | Destination                              | 345 tourists         | Significant               |
| Yoo and Park (2016)         | South Korea      | E-mass Customization                     | 303 female customers | Significant<br>(Positive) |
| Yu et al. (2013)            | Korea            | Location-based social networking service | 172 smartphone users | Significant<br>(Positive) |
| Kim et al. (2012)           | Korea            | Internet shopping                        | 293 shoppers         | Significant               |
| Hsu and Lin (2016)          | Taiwan           | Mobile app                               | 485 users            | Significant               |
| Xu et al. (2015)            | Southwestern U.S | Mobile app                               | 347 app users        | Significant<br>(Positive) |
| Nejati and Moghaddam (2013) | Iran             | Fast-casual restaurants                  | 379 customers        | Significant<br>(Positive) |
| Chitturi et al. (2008)      | North America    | Car                                      | 142 car owners       | Significant               |

Table 2.1 (continued)

| Author/Year        | Country     | Area                             | Respondents            | Result                       |
|--------------------|-------------|----------------------------------|------------------------|------------------------------|
| Kim (2015)         | South Korea | Low Cost<br>Full Service Airline | 668 passengers         | Significant<br>Insignificant |
| Ha and Park (2013) | Korea       | Netbook<br>Smartphone            | 158 users<br>241 users | Significa<br>(Positive)      |

As shown in table 2.1, most of the past studies agreed that utilitarian value and hedonic value stands out as factors which predicts brand satisfaction in various research settings. However, recent study by Yoo and Park (2016) indicated that the way a customer value effects the satisfaction may differ depending on the type of product and service. Therefore Yoo and Park (2016) pointed out that there is need to be further explored in it in future research.

In mobile phone context, smartphones have gained more hedonic and utilitarian aspects compare to feature phones. Hedonic and utilitarian aspects achieved with the addition of advanced service functionalities such as; video calling, video streaming, fast web surfing, several applications and job oriented functions which can be accessed anywhere and anytime. Hence, smartphones offer both utilitarian value and hedonic value to the users (Arruda-Filho & Lennon, 2011; Ahmad, 2012), which may result in brand satisfaction.

Although study by Ha and Park (2013) found that hedonic and utilitarian value both have a positive effect on satisfaction among smartphone and netbook early adopters and innovators in Korea yet the authors pointed out that the study has limitation regarding the generalization of its results because the study mainly focused only on early adopters and innovators of smartphone and netbook in Korea. In this sense, the

authors call for future study to investigate a wider range of users including majority users and cross nation analysis. As a result, there is a need to extend and refine the association between utilitarian and hedonic value with brand satisfaction among majority mobile phone users. In addition, study on utilitarian and hedonic value with brand satisfaction has not been undertaken in mobile phone brand context particularly in Malaysia as far as the time of this writing. Therefore, the relationship between utilitarian value and hedonic value with brand satisfaction among majority mobile phone users in Malaysia will be explored in this study.

Based on the previous discussions, the relationship between utilitarian value and hedonic value with brand satisfaction is positively significant. Given that, this study hypothesizes that:

H1 Utilitarian value has a significant positive relationship with brand satisfaction.

H2 Hedonic value has a significant positive relationship with brand satisfaction.

## **2.7 Emotional Attachment**

Bowlby (1979) indicated that emotional attachment is affect laden bond and passionate between an individual and a specific target. Initially, in psychology (e.g. Hazan & Shaver, 1994) the idea of enthusiastic connection has been employed to explore the relationships (e.g. between friends, between mother and children and between lovers). In such relationships, there are three sub dimensions namely secure base, proximity maintenance and safe haven. Firstly, secure base is basically about an individuals' for a reliable, trustworthy and stable relationship. The second sub dimension, proximity maintenance indicated as one's desire to stay or stick close

toward the attachment target. Finally, safe haven indicates an individual's physical or emotional support and comfort from the attachment target.

Apart from close relationships with people, study by Thomson and Johnson (2006) suggested that emotional attachment can be reached out beyond that. For instance, Williams and Vaske (2003) concluded that people may emotionally attached toward specific locales of land, an inclination that is alluded to as wistfulness. Furthermore, Kleine and Baker (2004) exposed that consumers tend to have emotional attachment toward belongings (e.g. automobile, house and a site of land).

In marketing, researchers (e.g. Vlachos, Theotokis, Pramataris & Vrechopoulos, 2010; Carroll & Ahuvia, 2006; Paulsen & Fournier, 2007) indicated that customers develop emotional attachment towards specific employees, companies and brands. According to Thomson et al. (2005), emotional brand attachment is an affective construct and durable emotional relation with a particular brand. In fact, Belaid and Behi (2011), indicated that emotional attachment is referred as an affective bond or link between customer and the brand. Emotional attachment towards a brand plays a vital role here because Ostrom, Brown, Bitner, Burkhard, Demirkan, Goul, and Smith-Daniels (2010) points out that this concept refers to efforts aimed at maintaining the relationship between the brand and the customer. Further, Whan, Park, MacInnis, Priester, Eisingerich and Lacobucci (2010) stated that such connection to the brand can be affective and feature the desire to maintain closeness to the brand. According to Oliver's four stage loyalty model (1999), affective (emotional attachment) is an outcome of cognitive which is mainly based on value. Thus, the linkage between value

and emotional attachment in various research settings is discussed in the next subsection.

### **2.7.1 Relationship between utilitarian value and hedonic value on emotional attachment.**

Prior studies have investigated the relationship between value and attachment to many kinds of things. Study by Lam and Shankar (2014) indicated that a brand's perceived value lead to a customer's emotional attachment upon a mobile phone brand because maybe it is related to their needs, e.g. communication with important people. Moreover, study by Frost, Hartl, Christian and Williams (1995) found that value of possessions positively influence emotional connection to those belonging. In addition, study by Brown and Raymond (2007) found that landscape value of natural features positively associated with place attachment. Another study by Allard, Babin and Chebat (2009) affirm that the hedonic value generated by mall features can trigger place attachment from customers. Furthermore, study by Yeh, Chen and Liu (2012) indicated that for cultural tourists, perceived experiential value is a key driver of place attachment.

In an organizational context, Pelled and Hill (1997) confirm that the association between work values of employees and organizational attachment is significant. Similarly, study by So, Parsons and Yap (2013) examine the relationship between extrinsic value (symbolic benefits) and intrinsic value (functional benefits) with emotional attachment towards the brand. The findings indicate that symbolic benefit and functional benefit build stronger emotional attachment toward brands. Recent study by Kim, Chung, Lee and Preis (2015) found that values to the customers of

tourism products on group buying sites has a significant effect on customer attachment to the sites. Consequently, value has been demonstrated to have positive and significant relationship with emotional attachment of any sort. The details are presented in Table 2.2.

Table 2.2  
*The Relationship between Values and Attachment.*

| Author/Year              | Type of Value                     | Type of Attachment        | Country         | Area                 | Respondents                             | Result                 |
|--------------------------|-----------------------------------|---------------------------|-----------------|----------------------|---|------------------------|
| Lam & Shankar (2014)     | Perceive Value                    | Brand Attachment          | Singapore       | Mobile Phone         | 514 mobile user                         | Significant (Positive) |
| Frost et al. (1995)      | Value of Possessions              | Emotional Attachment      | USA             | Hoarding             | 101 female student and 52 college staff | Significant            |
| Brown and Raymond (2007) | Landscape Value                   | Place Attachment          | Australia       | Landscape            | 1400 residents and 500 visitors         | Significant            |
| Allard et al. (2009)     | Hedonic Value                     | Place Attachment          | Canada          | Shopping Mall        | 772 shoppers                            | Significant (Positive) |
| Yeh et al. (2012)        | Experiential Value                | Place Attachment          | China           | Theme Park           | 347 cultural tourist                    | Significant (Positive) |
| Pelled and Hill (1997)   | Employee Work Value               | Organizational Attachment | Northern Mexico | Work Place           | 227 worker                              | Significant            |
| So et al. (2013)         | Extrinsic Value & Extrinsic Value | Emotional Attachment      | Malaysia        | Luxury Fashion Brand | 282 customers                           | Significant (Positive) |
| Kim et al. (2015)        | Value of site product             | Site Attachment           | South Korea     | Online Group Buying  | 400 group buyers                        | Significant (Positive) |

According to Arruda-Filho, Chaves Lima and Lennon (2014), during advanced technology product purchase decisions (e.g. smartphone), customers derive two key values namely utilitarian value and hedonic value from their brand consumption. At the point when brands are viewed as having greater utilitarian value and hedonic value



comparatively to competing brands, they are more resilient to competition (Chai, Malhotra & Alpert, 2015). As the brand becomes more desirable for the customer, the tendency of customer emotional attachment increase (Whan Park et al., 2010). However, to the best of researcher's scope of search, there is no any previous research specifically on the relationship between the utilitarian and hedonic value of a mobile phone brand with emotional attachment to the mobile phone brand. With paucity research pertaining to the association between utilitarian value and hedonic value with emotional attachment in mobile phone setting, further research is needed to investigate how utilitarian value and hedonic value help create emotional attachment toward mobile phone brands. Therefore, this study will investigate the association between utilitarian value and hedonic value with customer's emotional attachment toward their mobile phone brand.

Findings from previous literature shows that assessment of value exhibit stronger relationship with affective emotions, which is much related to the emotional attachment. Thus, this study hypothesizes that:

H3 Utilitarian value has a significant positive relationship with emotional attachment.

H4 Hedonic value has a significant positive relationship with emotional attachment.

## **2.8 Brand Trust**

The past decade has seen the rapid development of trust in the areas of marketing and management as well as economics, psychology and sociology. Interest of researchers from several disciplines have contributed fully to the construct, yet has additionally made it hard to coordinate the different point of views on trust. However, critical

review of literature discovered that the crucial constituents of a definition of trust are confident expectations and risk. Therefore, experts' defined trust as the confidence of an individual that he/she look for the desired or expected from others rather than he/she does not want or feared about it (Deutsch, 1973 as cited in Delgado-Ballester & Munuera-Aleman, 2005).

Accordingly, meaning of trusting a brand is that customers expect more regarding positive outcomes of the brand. Brand trust as anticipation is the customer's conviction that the brand has particular qualities which make it consistent, responsible, honest, competent and so on (e.g. Doney & Cannon, 1997; Andaleeb, 1992). Drawing from various research on brand trust, Delgado-Ballester and Munuera-Aleman (2005) indicated that trust is built upon dispositional attributions made to the partner about their qualities, intention and behaviors. In line with past research on trust (e.g. Ganesan, 1994; Doney & Cannon, 1997; Morgan & Hunt, 1994), Delgado-Ballester and Munuera-Aleman (2005) pointed out that particular attributions of brand should be technical and intentional in nature. Therefore, the researcher indicated that brand trust has two dimensions namely reliability and intentions. The reliability dimension is the specialized or skill part of brand trust regarding the brand's willingness and ability to keep promises, whilst the intention dimension is the customer's belief that the brand will act in relation to customer's welfare and interest. Brand trust therefore is defined as addressed by Delgado-Ballester and Munuera-Aleman, (2005) where brand trust is the confident expectations of the brand's reliability and intentions.

Oliver's four stage loyalty model (1999) indicated that cognition (customer perceived value) causes affective (customer brand satisfaction and emotional attachment) and

sequentially influences conation (brand trust) and finally action (brand loyalty). Therefore, following the tenet of Oliver's four stage loyalty model (1999), brand trust is predicted by brand satisfaction and emotional attachment. In this study, the following subsection 2.8.1 discusses on the association between brand satisfaction and brand trust and the subsection of 2.8.2 discusses on the linkage of emotional attachment and brand trust.

### **2.8.1 The relationship between brand satisfaction and brand trust**

As stated by Oliver (1999), brand satisfaction is user's summary decision of whether the brand is according to his or her performance expectations as well as fulfil the user's needs. According to Harris and Goode (2004), brand satisfaction is an indication that a customer is convinced with the values provided by a brand specifying that the brand fulfil their expectations. Further, the researchers indicated that brand satisfaction will lead customers' to trust the brand. In fact, Nam, Ekinci and Whyatt (2011) pointed out that positive attitude that generates through satisfaction with the brand will culminate in brand trust. Moreover, the level of brand trust is the result of the brand capacity in order to fulfill the requirements of its customers. (Sahin, Zehir & Kitapci, 2011).

Several past studies have addressed the linkage between brand satisfaction and brand trust in context of mobile phone brands in various countries. For example, in Turkey, a study was conducted by Azize, Cemal and Hakan (2012) found that customer's satisfaction towards their mobile phone brand positively affect their brand trust. Similarly, study by Lam and Shankar (2014) in Singapore stated that brand

satisfaction towards a mobile phone brand positively influences brand trust (perceived competence and benevolence) for early adopters as well as late adopters. In addition, study by Lee et al. (2015) in South Korea indicated that satisfaction accumulated by using a particular brand mobile phone generates a positive effect towards the brand thereby enhance the level of brand trust. Moreover, another study by Ercis, Unal, Candan and Yildirim (2012) administered to the graduate and undergraduate students of Ataturk University, Turkey found positive a relationship between brand satisfaction and brand trust in mobile phone context.

In retailing context, study by Miquel-Komero, Caplliure-Giner and Adame-Sanchez (2014) acknowledged that satisfaction with the private label convenience goods has a direct and positive impact on trust in private label convenience goods among the customers. A study was conducted in South Africa by Chinomona, Mahlangu and Pooe (2013) also found that customers tend to trust a brand more when the degree of positive brand satisfaction that customers realized is high. Extant research literature linking brand satisfaction and brand trust in retailing industry found that the degree of trust is a consequence of the capacity of a brand to satisfy the needs of its customers. In fact, in context of retailer and manufacturer relationship, study by Glynn, Brodie and Motion (2012) indicated that satisfaction of retailer's with the brand of manufacturer positively related to the retailer's trust in the manufacturer on issues related with the brand.

Furthermore, Lee and Back (2008) investigated CHRIE conference attendee behaviors. They found that satisfied attendees have high confidence that the particular conference will deliver its promises and their perceived risk towards that conference is

low compare to unfamiliar conferences. This clearly shows that satisfaction among attendees positively related to trust. Another study, conducted among tourists who visited the Angkor temple in Cambodia resulted that the destination satisfaction significantly linked with destination trust (Chen & Phou, 2013). In non-durable customer goods context, Chinomona (2013) found that brand satisfaction is positively related to brand trust. Also, Horppu, Kuivalainen, Tarkiainen and Ellonen (2008) investigated the relationship between web site satisfaction and web site trust and found that the relationship is positive and strong. Table 2.3 shows that the summary of previous research examining the relationship between brand satisfaction and brand trust.

Table 2.3  
*The Relationship between Brand Satisfaction and Brand Trust.*

| Author/Year             | Country      | Area                            | Respondents             | Result                 |
|-------------------------|--------------|---------------------------------|-------------------------|------------------------|
| Azize et al. (2012)     | Turkey       | Mobile phone                    | 550 students            | Significant (Positive) |
| Lam and Shankar (2014)  | Singapore    | Mobile phone                    | 514 mobile users        | Significant (Positive) |
| Lee et al. (2015)       | South Korea  | Mobile phone                    | 310 mobile users        | Significant (Positive) |
| Ercis et al. (2012)     | Turkey       | Mobile phone                    | 390 university students | Significant (Positive) |
| Miquel-Komero (2014)    | Spain        | Private label convenience goods | 434 respondents         | Significant (Positive) |
| Chinomona et al. (2013) | South Africa | Retailing                       | 151 students            | Significant (Positive) |
| Glynn et al. (2012)     | New Zealand  | Retailing                       | 820 retail buyers       | Significant (Positive) |
| Lee and Back (2008)     |              | Conference                      | 213 members             | Significant (Positive) |

Table 2.3 (continued)

| Author/Year          | Country      | Area                        | Respondents   | Result                 |
|----------------------|--------------|-----------------------------|---------------|------------------------|
| Chen and Phou (2013) | Cambodia     | Tourism Destination         | 428 tourist   | Significant (Positive) |
| Chinomona (2013)     | South Africa | Non-durable consumer goods. | 151 consumers | Significant (Positive) |
| Horppu et al. (2008) | Finland      | Magazine Website            | 867 users     | Significant (Positive) |

All in all, above table is showing the significant relationship between brand satisfaction and brand trust in variety setting using different models. Nonetheless, study by Azize et al. (2012) investigated the effects of brand satisfaction in building brand trust in mobile phone setting suggested that further studies should covered the other areas geographically in order to generalized the result. To the best of researcher knowledge, so far the linkage between brand satisfaction and brand trust in mobile phone setting has only been investigated in Singapore (Lam & Shankar, 2014), South Korea (Lee et al., 2015) and Turkey (Ercis et al., 2012). This relationship however is still uncovered in the Malaysian background. Thus, the need to investigate the extent of influence brand satisfaction will exert on the mobile phone brand trust in Malaysia become necessary.

Most previous studies found that brand satisfaction has a positive significant relationship brand trust. Thus, this study hypothesize that:

H4 Brand satisfaction has significant positive relationship with brand trust.

### **2.8.2 The relationship between emotional attachment and brand trust**

It's already been demonstrated that customers with emotional attachment towards a particular brand have higher commitment along with sustainable relationship with the brand (Thomson et al., 2005; Carroll & Ahuvia, 2006). Fedorikhin, Whan and Park (2008) notes that customers tend to stay connected and willing to continuously interact with a particular brand when they are highly attached to that brand. In fact, study by Bouhlel, Mzoughi, Hadiji and Slimane (2009) highlights that emotional brand attachment allows predicting certain customer behaviour such as trust, commitment and brand loyalty.

The tenet of Oliver's four stage loyalty model (1999) is that emotional attachment (affective) determines brand trust (cognition) while cognition predicts loyalty. According to Oliver (1999), customers trust towards a brand is determined by his or her emotional attachment towards a particular brand. Study by Belaid and Temessek Behi (2011) pointed out that investigating the relationship between emotional attachments on a relational construct such as brand trust gives a more profound knowledge into the role emotional attachment in consumer behaviour. Few reviews have concentrated expressly on the relationship between emotional attachment and brand trust.

In 1983, Johnson and Tversky have elucidate the effects of customer's emotion on their judgement, perception and decision to that the valence of perceived risk either negative or positive depends on the customer's emotional state. Recent study by Mishra, Kesharwani and Das (2016) observes that customers make positive and higher

risk perceptions when they are experiencing positive emotional states. Furthermore, study by Williams (2004) indicated that individuals evaluate trustworthiness of others based on their affective attachment. The author further explained that a person motivated to cooperate and display trust in others based on their feelings. In addition, Palmatier, Jarvis, Bechkott and Kardes (2009) suggested that individual tend to trust someone by examining the feelings (positive emotions) that they have toward that person.

Sarkar, Sarkar and Rao (2016) conducted a qualitative study to explore the antecedents and outcomes of hospital brand attachment in India. The researchers concluded that strong attachment relationships with a hospital builds deep trust upon the hospital, in turn makes individuals deeply loyal to their favoured hospitals. Based on the above statements, it can be argued that customers who are with emotionally attached with a brand believe that the brand will fulfil its promises and the brand does not intend to lie or take advantage of the customer's vulnerability. Few researchers have empirically tested the effects of emotional attachment on brand trust. In Tunisia, Belaid and Behi (2011) carried out a survey in the car battery market and collected 416 questionnaires for analysis. The researchers confirmed that customers who are attached to a brand, trusts that brand and the correlation are high.

Study by Jahn, Gaus and Kiessling (2012) also conducted a research among 341 female coffee consumers in Germany to examine the association between brand attachment (self-concept connection and partner quality) and trust. The researcher found that brand attachment has a strong impact on brand trust. Further, Albert, Merunka and Valette – Florence (2009) studied the influence of emotional attachment



dimension (affection and passion) on behaviours namely brand trust, loyalty and positive word of mouth. The authors focused on various product categories such as Sony, Apple, Adidas, L'Oreal, Chanel, Zara, Esprit, Nutella, Audi and BMW found that only one dimension of emotional attachment namely affection linked to brand trust. Also, Matzler, Pichler, Fuller and Mooradian (2011) conducted a research among 662 Volkswagen Golf GTI fans from all over Europe confirmed that product attachment significantly impact brand trust. Table 2.4 shows the summary of previous studies on the relationship between emotional attachment and brand trust.

Table 2.4

*The Relationship between Emotional Attachment and Brand Trust.*

| Author/Year            | Country | Area                | Respondents          | Result                 |
|------------------------|---------|---------------------|----------------------|------------------------|
| Belaid and Behi (2011) | Tunisia | Car Battery         | 416 car users        | Significant (Positive) |
| Jahn et al. (2012)     | Germany | Coffee              | 341 female consumers | Significant (Positive) |
| Albert et al. (2009)   | France  | Various Product     | 825 users            | Significant (Positive) |
| Matzler et al. (2011)  | Europe  | Volkswagen Golf GTI | 662                  | Significant (Positive) |

Thus far, Table 2.4 shows that previous studies have revealed a correlation between emotional attachment and brand trust in various research settings. Although these studies investigate the association regarding brand trust and emotional attachment in various research settings, the findings from these studies so far cannot be generalized to be symmetrical in all markets because recent study by Sarkar et al. (2016) pointed out that every market has its own idiosyncrasies specific to that particular market. In fact, Sarkar et al. (2016) suggested that further research pertaining to the association

between emotional attachment and brand trust should be conducted across several markets from various countries. Despite the call for more research into several markets, literature indicates existing studies that investigate the effects of emotional attachment on brand trust are rare with the context of the mobile phone market. Over and above, Malaysia mobile phone setting is a context that often neglected by the researchers. This clearly shows studies that investigate the association between emotional attachment and brand trust in mobile phone setting particularly in Malaysia have been relatively scanty and considerably more research is needed to address this gap. Therefore, this study investigate the association between emotional attachment and brand trust in mobile phone setting

Based on the previous discussions, the relationship between emotional attachment and brand trust is positively significant. Given that, this study hypothesizes that:

Hypothesis 6 Emotional attachment has significant positive relationship with brand trust

## **2.9 Brand Loyalty**

Generally, there are many definitions of brand loyalty because of that many studies relating to brand loyalty uses its own explanation of loyalty. Further, in regards to brand loyalty studies, a battle has been fought between behavioural and attitudinal approach (Kuikka & Laukkanen, 2012). However, as per Oliver (1999) definition of brand loyalty is in terms of a strong commitment to repurchase or patronize a desirable brand on a continuous basis in future, thus, causing the repeat purchase of the same brand. Despite all the marketing efforts as well as the situational effects have potential

which cause switching behaviour. In other words, brand loyalty is a customer's promise to repurchase a particular brand on constant a basis, regardless of competitors' marketing efforts and this customers do not think about switching (Oliver, 1999). Further, Oliver (1999) theorized that brand loyalty (action) is determined by brand trust (conative). In other words, Oliver (1999) describes brand loyalty is ongoing process of maintaining and continuing an important and valued relationship that has been created by trust. In addition, Morgan and Hunt (1994) noted that trust is the prerequisite of successful long term relationship such deep commitment which reflects loyalty. This is fairly supported by many researchers in the branding literature. The next section discussion is based on brand trust and loyalty relationship.

### **2.9.1 Relationship between brand trust and brand loyalty.**

Researchers have studied the influence of brand trust on brand loyalty across many markets from various countries. In the telecommunication industry numerous studies have examined the trust and brand loyalty relationship. Malik et al. (2013) identifies that trust is an important factor in creation of loyal customers. Another study by Amin, Ahmad and Hui (2012) studied the relationship between trust and brand loyalty among 185 students who are telecommunication users in Malaysia. The authors discovered that there is a positive and significant relationship between trust and brand loyalty. Similarly, Nawaz and Usman (2008) also empirically prove that the relationship between trust and loyalty is significant but with weak positive relation in telecommunication market, Pakistan. In the telecommunication industry, the association between brand trust and brand loyalty is positively significant.

Apart from telecommunication industry, there have been few studies in the literature reporting the linkage between brand trust and brand loyalty in the context of mobile phone. For instance, Mosavi and Kenarehfard (2013) in Iran conducted a study to investigate the relationship. The result of this study reveals that the effects of brand trust on brand loyalty is strongly supported among 196 users of Samsung Galaxy cell phones. Another study equally validates the influence of brand trust on brand loyalty in the mobile phone platform among Austrian mobile phone users (Matzler, Grabner-Krauter & Bidmon, 2008). The result of this study suggests that the customer's trust upon their mobile phone brand is related to their loyalty behaviour towards the particular brand and equally plays an important role in mobile phone brand loyalty. Further, Lee et al. (2015) conducted a study among 310 mobile phone users in South Korea and discovered that a positive and significant relationship exist between brand trust and brand loyalty. Also, in a study conducted by Lam and Shankar (2014) in Singapore found that brand trust namely benevolence and competence significantly and positively influence toward mobile phone brand loyalty. It has been shown that brand trust has a positive relationship toward mobile phone brand loyalty.

Furthermore, the association between brand trust and brand loyalty has been widely investigated in website environment. For instance, Lin and Lee (2012) found that brand trust is an essential variable that exert strong influence on brand loyalty of online bookstore website users in Taiwan. Forgas, Palan, Sanchez and Huertas-Garcia (2012) studied the effect of E-trust on E-loyalty in Barcelona among British Airways Passengers who bought their tickets through the company website. Their findings revealed that a user's trust on the airline's website positively affect the user's loyalty

to the site. This clearly shows that trust has a positive and significant relationship on brand loyalty in the context of website environment.

In addition, previous research acknowledges the influence of brand trust on brand loyalty in the online context. For instance, Ladhari and Leclerc (2013) found the trust and E-loyalty are positively associated with in online financial service context in Canada. Kim, Chung and Lee (2011) confirmed that trust plays a key role as an antecedent of customer loyalty in online shopping for tourism services and products in Korea. Furthermore, Laroche, Habibi, Richard and Sankaranarayanan (2012) have also pointed towards the positive and significant effect of brand trust on brand loyalty in the context of social media such as Facebook, MySpace and Twitter.

Similarly, in context of automotive, scholars (e.g. Zehir et al., 2011; Sahir et al., 2011) found that brand trust positively correlated with brand loyalty in Turkey because trusted car brands will be purchased more often and will evoke a higher degree of commitment to patronize. In fact, Gecti and Zengin (2013) tested the link between trust and brand loyalty in Turkey sports shoe market. The result of the study revealed that there is a positive association between trust and brand loyalty.

However, a number of studies show that significant differences do exist, albeit findings are somewhat contradictory. For instance, Rafiq, Fulford and Lu (2013) revealed that there is no significant relationship between trust and loyalty and the researchers concluded that there is no direct effect from trust to loyalty in context of online retailing. Study by Eid (2011) also found that electronic customer trust has insignificant relationship with electronic customer loyalty in the context of internet

retailing. The research study by Hosseinei and Nahad (2012) also found that student's trust upon the university does not have a significant relationship with student's loyalty towards the university. Table 2.5 shows the summary of past studies on the association between brand trust and brand loyalty.

Table 2.5  
*The Relationship between Brand Trust and Brand Loyalty.*

| Author/Year                  | Country     | Area                             | Respondents                              | Result                 |
|------------------------------|-------------|----------------------------------|--|------------------------|
| Malik et al. (2013)          | Pakistan    | Telco                            | 183 mobile users                         | Significant (Positive) |
| Amin et al. (2012)           | Malaysia    | Telco                            | 185 students                             | Significant (Positive) |
| Nawaz and Usman (2008)       | Pakistan    | Telco                            | 475 mobile users                         | Significant (Positive) |
| Mosavi and Kenarehfar (2008) | Iran        | Mobile Phone                     | 196 Samsung Galaxy Users                 | Significant (Positive) |
| Matzler (2008)               | Austrian    | Mobile Phone                     | 145 mobile users                         | Significant (Positive) |
| Lee et al. (2015)            | South Korea | Mobile Phone                     | 310 mobile users                         | Significant (Positive) |
| Lam and Shankar (2014)       | Singapore   | Mobile Phone                     | 514 mobile users                         | Significant (Positive) |
| Lin and Lee (2012)           | Taiwan      | Website Environment              | 683 University students                  | Significant (Positive) |
| Forgas et al. (2012)         | Barcelona   | Airlines                         | 1203 passenger                           | Significant (Positive) |
| Ladhari and Leclerc (2013)   | Canada      | Online financial Service context | 376 user of online financial institution | Significant (Positive) |
| Kim et al. (2011)            | Korea       | Online Shopping                  | 340 online panel Respondent              | Significant (Positive) |
| Laroche et al. (2012)        | Canada      | Social Media                     | 441 social media user                    | Significant (Positive) |
| Zehir et al. (2011)          | Turkey      | Car                              | 258 customers                            | Significant (Positive) |
| Gecti and Zengin (2013)      | Turkey      | Sports Shoe                      | 428 consumers                            | Significant (Positive) |

Table 2.5 (Continued)

| Author/Year                | Country      | Area               | Respondents                   | Result        |
|----------------------------|--------------|--------------------|-------------------------------|---------------|
| Rafiq et al. (2013)        | UK           | Online Retailing   | 491 internet grocery Shoppers | Insignificant |
| Eid (2011)                 | Saudi Arabia | Internet Retailing | 218 e-commerce user           | Insignificant |
| Hosseinei and Nahad (2013) |              | University         |                               | Insignificant |

A careful study of the literature reveals (Table 2.5) that no conclusive stand on this relationship as there is inconsistency in the findings. The variations on these conclusions are interesting research gaps for future study towards the development of prior research. In addition, even if there are studies (e.g. Matzler., 2008; Mosavi and Kenarehfard, 2013; Lee et al., 2014) have looked at the effects of brand trust on brand loyalty in mobile phone area, these researches have thrown up many questions in need for further investigation. For instance, study by Matzler et al. (2008) concluded that it is questionable whether their study will get the same findings (positive association between brand trust and brand mobile phone brand loyalty) or not in different cities among different cultures. Given that cultural differences may influence customer's trust on loyalty, Matzler et al. (2008) advised to recruit respondents from various cultural backgrounds in order to enrich literatures in this aspect.

Moreover, study by Mosavi and Kenarehfard (2013) obtain that there is a significant positive association between brand trust and mobile phone brand loyalty among Samsung Galaxy users. Unfortunately, the sample of the study, one brand (Samsung Galaxy) users, does limit the generalizability of the findings. Therefore, Mosavi and Kenarehfard (2013) pointed out that investigation into other competing brands could

prove valuable data and help to support or contradict the finding. Given that brand type may affect the result, so it is necessary to do deep research on these association by considering various type of mobile phone brands.

Another study Lee et al. (2015) pertaining to brand trust and mobile phone brand loyalty found that there is positive relationship between these two construct yet the results are mainly based on relatively younger population who were in their twenties. According to Yeh, Wang and Yieh (2016), age affects individual's attitude and behaviour and age appears to be important while building brand loyalty among smartphone customers. Thus, the effects of the brand trust on mobile phone brand loyalty may be varied with customers' age. What is now needed is a study involving different age mobile phone users pertaining to these association.

Realising the gaps in the extant literature, this study address this insufficiency by examining the effect of brand trust on mobile phone brand loyalty from Malaysian background involving various mobile phone brands among heterogeneous age group customers. Based on the previous discussions, the relationship between brand trust and brand loyalty is positively significant. Given that, this study hypothesizes that:

H7 Brand trust has significant positive relationship with brand loyalty.

## **2.10 Moderation effect**

Generally, Barron and Kenny (1986) indicate moderator as a quantitative or qualitative variable that influence the strength or direction of the relationship between dependent and independent variable. They further point out that as the relationship



between dependent and independent variable weak or inconsistent, the moderator will be introduced. Simultaneously, according to Hair (2014), moderator is believed to affect the strength of particular relationship between two latent variables. Moderator variables possibly change the direction of the relationship.

Barron and Kenny (1986) further point out that one trait of the moderator is that, moderator variable and independent variable with respect to their roles are at the same level as causal variables antecedent or exogenous to certain dependent variable. In other words, moderator variables always play role as an independent variable. Moreover, moderation implicit that the causal relation between two variables changes as use of the moderator.

#### **2.10.1 The moderation role of brand reputation**

Customer convert conative into actions requires an extra longing to defeat obstructions that might prevent the act (Oliver, 1999). Oliver (1999) further pointed out that ultimate loyalty can be achieved when brand reputation (brand has the capacity to be embedded in social network) is present, which makes the customer feel that they are part of preferable social group thereby customers become determined defenders of brands. In other words, customers who can become determined defenders of the brand will repeat their purchase within the same brand simply because when they associate with a well reputed brand, a positive identification is generated and they experience enhanced self-esteem (Halliday & Kuenzel, 2010). According to Oliver (1999), brand reputation acts as a significant facilitator for action loyalty.

According to Veloutsou and Moutinho (2009), a reputable brand passes on a solid sign of the product's quality, which could act as an inhibitor to switching. Furthermore, brand reputation strengthens the consumer's habitual behavior by rewarding their selection/choice and making the brand more appealing and desirable (Gounaris & Stathakopoulos, 2004). This clearly shows that researchers in marketing particularly those in consumer behavior agreed that brand reputation is a sustainer of action loyalty. In fact, study by Bang, Odio and Reio (2014) found that brand reputation moderates between TPB construct of attitude and behavioral intention. Thus, brand reputation can play an important role as moderator with respect to relationship between conative (attitudinal) and action (behavioral). In this study, a customer may believe that their trust will enhance their rebuying for the reputable brand, indicating that effects of brand trust (conative) on brand loyalty (action) may be moderated or enhanced by the factor of strong reputation that the brand possesses.

Furthermore, in mobile phone market, Epstein (2015) highlights that Samsung keeps its promises (trustable) yet it has less brand loyal customers compare to Apple iPhone. The author stated that recent survey by RBC Capital Markets over 6000 customers demonstrated that Apple has more loyal customers compare to Samsung where 83.4% of Apple phone users plan to repurchase the same brand in their next purchase and only 64% of Samsung users plan to buy another Samsung. Indeed, Negahban and Chang (2014) stated that iPhone by Apple company enjoys a large growth in sales eventhough it has lower hardware and software configurations compared to smartphones such as HTC and Samsung since iPhone has established a higher reputation. In addition, Michael (2014) stated that a survey by

SIMOnlyContracts.co.uk among 2000 Apple iPhone owners found that 60% of the target respondents admitted that they have “blind loyalty” to the Apple brand. As they do not even think about other available options when they purchase a new mobile phone and simply ensure that it has the Apple logo on it. It is crystal clear that although Samsung is trustworthy, but still it has less brand loyal customers compare Apple because Apple has established a higher reputation among customers. It should be noted that, customer’s trust toward their mobile phone brand is inherently valuable, yet the reputation of the mobile phone brand determines the strength of customers brand trust effect on mobile phone brand loyalty.

Despite the possible moderating role of brand reputation in formation of mobile phone brand loyalty, to the best of researchers’ knowledge, no study so far on brand reputation as moderator in brand loyalty formation. Previous studies concerning brand reputation in loyalty studies (e.g. Gul, 2014; Kuenzel & Halliday, 2010; Mahasuweerachai & Qu, 2015; Walsh et al., 2009) have widely investigated its role as an independent variable rather than moderator variable. Realizing the gap in the extant literature, more research is needed for brand reputation as moderator in brand loyalty studies. Therefore, this study empirically tests the possible moderating role of brand reputation on relationship between brand trust and mobile phone brand loyalty. From the preceding discussion, it is hypothesized that:

H8 The positive relationship between brand trust and brand loyalty will be stronger when brand reputation is high.

## 2.11 Research Framework

The primary focus of the present study is to examine the sequential linkage of utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and brand loyalty in Malaysia mobile phone context. This study also aims to investigate the moderating role of brand reputation on the relationship between brand trust and brand loyalty. The proposed research framework for this study is as shown in Figure 2.3.

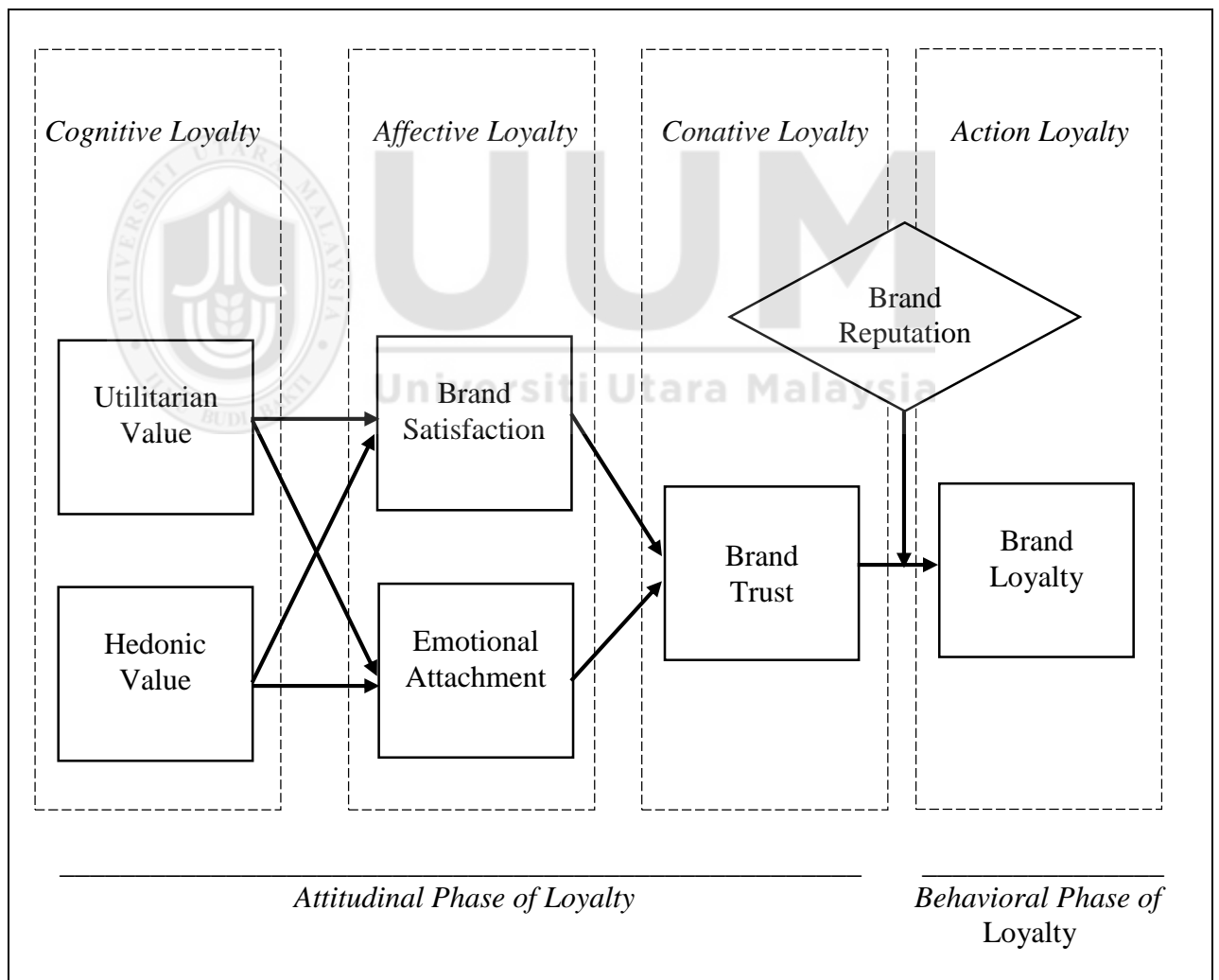


Figure 2.3  
Research Framework

To answer the research questions and achieve research objectives of the present study, Zikmund et al. (2010) argued that the hypotheses of research should be related to the research questions and research objectives. Table 2.6 illustrates the logical link between the research objectives and hypotheses of the present study.

Table 2.6  
*Summary of Research Objectives and Hypotheses Development*

| No | Objectives and Hypothesis Statement  |
|----|--|
| 1  | <p><b>Objective 1:</b><br/><b>To investigate the relationship of utilitarian value and hedonic value with brand satisfaction.</b></p> <p>H1 Utilitarian value has significant positive relationship with brand satisfaction.</p> <p>H2 Hedonic value has significant positive relationship with brand satisfaction.</p>      |
| 2  | <p><b>Objective 2</b><br/><b>To investigate the relationship of utilitarian value and hedonic value with emotional attachment.</b></p> <p>H3 Utilitarian value has significant positive relationship with emotional attachment.</p> <p>H4 Hedonic value has significant positive relationship with emotional attachment.</p> |
| 3  | <p><b>Objective 3</b><br/><b>To investigate the relationship of brand satisfaction and emotional attachment with brand trust.</b></p> <p>H5 Brand satisfaction has significant positive relationship with brand trust.</p> <p>H6 Emotional attachment has significant positive relationship with brand trust.</p>            |

Table 2.6 (continued)

| No | Objectives and Hypothesis Statement   |
|----|---|
| 4  | <b>Objective 4</b><br><b>To investigate the relationship between brand trust and brand loyalty.</b>   |
| H7 | Brand trust has significant positive relationship with brand loyalty.   |
| 5  | <b>Objective 5</b><br><b>To assess the moderating effect of brand reputation on the relationship between brand trust and brand loyalty.</b> |
| H8 | The positive relationship between brand trust and brand loyalty will be stronger when brand reputation is high.                             |

## 2.12 Summary of the chapter

To sum up, this chapter reviews the concept of brand loyalty and three conceptualization of loyalty have been discovered in literature: behavioral loyalty, attitudinal loyalty and composite loyalty. Finally, many prominent researchers in loyalty agree and insisted that customer loyalty should be measured with both attitudinal and behavioral aspect which is known as composite loyalty. Oliver (1999) has enriched the body of knowledge in the loyalty by conceptualizing composite loyalty into models. Therefore, this study is designed in relation to Oliver's four stage loyalty model, cognitive (utilitarian value and hedonic value), affective (brand satisfaction and emotional attachment), conative (brand trust) and action theorization of loyalty. The adoption of this paradigm was discussed in detail with the explanation of related past studies. Scientific evidence provides support for the relationship between the constructs yet the results of these studies are far from conclusive, which suggests the need for further investigations. Hence, the linkage of utilitarian value and

hedonic value; brand satisfaction and emotional attachment; brand trust; and brand loyalty and the moderating role of brand reputation were proposed. In the next chapter, research design and methods for this study were discussed.



## **CHAPTER 3**

### **METHODOLOGY**

#### **3.0 Introduction**

Chapter three presents a description of the method and procedures that will be used by the researcher during this study. This chapter discusses such as research design, operationalization and measurement of variables as well as research instrumentation. Subsequently, this chapter elaborate about the pretesting of the instruments before pilot study. Then, this chapter demonstrate the result of the pilot study, population of the study, sampling strategy, data collection procedure followed by data analysis techniques and conclusion.

#### **3.1 Research Design**

Research design is blue print of structure, process and methods pertaining to purpose of the study, type of investigation, extent of researcher interference, study setting, unit of analysis and time horizon (Sekaran & Bougie, 2010). This study relied on hypothesis testing method because this study investigate the nature of relationship among the variables (utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust; and brand loyalty) sequentially and the moderating role of brand reputation. Moreover, the type of investigation of this study is causal as it is interested in delineating the causal sequence among the variables in forming mobile phone brand loyalty with minimum interference by the researcher in a non-contrived setting (work proceeds normally). As the problem statement of this study



focusses on understanding customer's loyalty behavior, there is need to gather data individually from the Malaysian mobile phone customers. Hence, the unit of analysis for this study is individual. Furthermore, this study is a cross-sectional study because data were collected just once, over a period of months.

### **3.2 Operationalization and Measurement of Variables**

The main aim of the present study is to investigate the relationship among utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and mobile phone brand loyalty sequentially and the moderating role of brand reputation. All the variables were operationalized and the measurements items for each variables were adapted / adopted from the past studies published in leading academic journals to fit the scope of this research. All the measurements are reflective measures and a total of 41 scale items were used in this study. The following section presents the operational definition and measurement scales of each variables.

#### **3.2.1 Utilitarian Value**

Utilitarian value is primarily refers to instrumental, functional and practical usefulness or benefits derived from a product (Voss et al., 2003). In the context of this study, utilitarian value operationalized as an overall assessment of instrumental, functional and practical benefits that a particular brand mobile phone offers to the user. Utilitarian value was measured by five items adopted from Voss et al. (2003). These measurement items were selected because they were reported with high construct reliability of 0.85 (Im et al., 2015). Moreover, these five items were employed to

measure utilitarian value in mobile setting by Park, Snell, Ha and Chung. (2010) and Im et al. (2015). The items are presented in Table 3.1.

Table 3.1

*Utilitarian value measures (5 items)*

---

**Measurement Items**

---

Ineffective – effective  
 Unhelpful – helpful  
 Not functional – functional  
 Unnecessary – necessary  
 Impractical – Practical

---

Source: Voss et al. (2003).

### 3.2 2 Hedonic Value

Hedonic value in this research refers to aesthetics, experiential, or sensory related benefits from using a product (Voss et al., 2003). In the context of this study, hedonic value refers to the experiential, aesthetics and sensory related benefits that a particular brand mobile phone offers to the user. Hedonic value were measured by using five items adopted from Voss et al. (2003). Study by Im et al. (2015) used these five items to measure hedonic value in context of mobile phone had an acceptable reliability of 0.82, confirming internal consistency. The items are presented in Table 3.2;

Table 3.2

*Hedonic value measures (5 items)*

---

**Measurement Items**

---

Not fun – fun  
 Dull – exciting  
 Not delightful – delightful  
 Not thrilling – thrilling  
 Not at all enjoyable – enjoyable

---

Source: Voss et al. (2003).

### 3.2.3 Brand satisfaction

Brand satisfaction is customer's evaluative judgment about the perceived discrepancy between expected and actual brand consumption experience (Oliver, 1999). In this study, brand satisfaction is operationalized as customer's overall evaluation of whether a particular brand mobile phone meet their performance expectations or fulfill their usage needs. In this study, nine items were adapted from Mabkhot, Salleh and Shaari (2016) were used to measure brand satisfaction. The measurement items had an acceptable composite reliability of 0.863. The third item 'The product provided by this brand is very satisfactory' was modified to 'The phones provided by this brand is very satisfactory'. The items are presented in Table 3.3.

Table 3.3  
*Brand satisfaction measures (9 items)*

---

**Measurement Items**

---

I am very satisfied with the service provided by this brand.  
This brand does a good job of satisfying my needs.  
The phones provided by this brand is very satisfactory.  
I believe that using this brand is usually a very satisfying experience.  
I made the right decision when I decided to use this brand.  
I am addicted to this brand in some way.  
I am very satisfied with this brand.  
This brand fulfills my expectation completely.  
I have positive attitude towards this brand.

---

Source: Mabkhot et al. (2016)

### 3.2.4 Emotional Attachment

In this study, emotional attachment to a brand refers to self-implicated emotion-laden bond between the consumer and a mobile phone brand (Thomson et al., 2005; Lam & Shankar, 2014). Five items were adapted from Lam and Shankar (2014) to measure

customers' emotional attachment towards their mobile phone brand. These measurement was chosen because they were validated in the context of mobile phone and had an acceptable reliability of 0.60. The third item 'Even if it were to my advantage to switch to another brand, I would not feel good about switching to that brand' was modified to 'Even it is an advantage for me if I switch to another brand but I would not feel good about switching to that brand'. The items are presented in Table 3.4.

Table 3.4  
*Emotional attachment measures (5 items)*

---

**Measurement Items**

---

I feel emotionally attached to the brand that I am currently using.  
 This brand means a lot to me personally.  
 Even it is an advantage for me if I switch to another brand but I would not feel good about switching to that brand.  
 I identify myself with this brand.  
 I feel special bond between myself and this brand.

---

Source: Lam and Shankar (2014)

### **3.2.5 Brand trust**

Brand trust is defined as confident expectations of the brand's reliability and intentions (Delgado-Ballester, 2004). Therefore, conceptualization of brand trust can be categorized into two distinct dimensions which reflect different perspectives from which customers may consider a brand as trustworthy. Firstly, the dimension of brand trust (reliability) entails a technical-based or competence based nature which involves the ability and willingness of a brand to keep its promises and satisfy consumers' needs. The second dimension of brand trust (intentions) comprises the attribution of good intentions to the brand in regard to the customers' welfare and interests, for

instance, unexpected generation of errors in product. In this study, brand trust is operationalized as innate expectations and perceptions about the mobile phone brand's reliability and intentions to rely on it. Brand trust was measured using eight items adapted from Delgado-Ballester (2004). Study by Sahin et al. (2013) used these measurement to measure brand trust in context of mobile phone and had an acceptable reliability of 0.81, confirming internal consistency. The sixth item 'I could rely on this brand to solve the problem' was modified to 'I could rely on this brand to solve any problem with the mobile phone'. In addition, the eighth item 'This brand would compensate me in some way for the problem with the product' was modified to 'This brand would compensate me in some way for the problem with the phone'. The items are presented in Table 3.5.

Table 3.5  
*Brand trust measures (8 items)*

---

**Measurement Items**

---

This brand meets my expectation.  
 I feel confidence in this brand.  
 This brand never disappoints me.  
 This brand guarantees satisfaction.  
 This brand would be honest in addressing my concerns.  
 I could rely on this brand to solve any problem with the mobile phone.  
 This brand would make any effort to satisfy me in a case of a problem.  
 This brand would compensate me in some way for the problem with the phone.

---

Source: Delgado-Ballester (2004).

### **3.2.6 Brand reputation**

Brand reputation is aggregate perception on the salient characteristics of brands or companies (Morgan-Thomas & Veloutsou, 2013). In this study, brand reputation is operationalized as total recognition on the notable characteristics of a mobile phone

brand. Brand reputation was measured by four items adapted from Morgan-Thomas and Veloutsou (2013) and they were reported at an acceptable reliability coefficient of 0.73. The second item ‘It is one of the leading search engine on the web’ was modified to ‘This brand is one of the leading brand among the mobile phone brands’. Further, the third item ‘This search engine is reputable’ was modified to ‘This brand is reputable’. The items are presented in Table 3.6.

Table 3.6  
*Brand reputation measures (4 items)*

---

**Measurement Items**

---

This brand is well known.  
This brand is one of the leading brand among the mobile phone brands.  
This brand is reputable.  
This brand is easily recognizable.

---

Source: Morgan-Thomas and Veloutsou (2013).

### 3.2.7 Brand Loyalty

Brand loyalty in this study is considered as profoundly held commitment to patronize or repurchase a brand continuously in future, notwithstanding the capability of situational impacts and marketing efforts to induce switching (Oliver, 1997). In other words, in line with Oliver (1997), mobile phone brand loyalty in this study refers to repeat purchase the same brand mobile phone over time and make recommendation to others to purchase the same brand mobile phone which is behavioral aspects of loyalty. As such, mobile phone brand loyalty measure was adapted from behavioral loyalty scale of Karjaluoto et al. (2012) and they had an acceptable reliability of 0.920. The first item ‘I am loyal customer of my mobile phone operator’ was modified to ‘I am a loyalty customer of this brand’. The second item ‘I will use more services of my

mobile operator in the next few year was modified to ‘I will buy this brand in my next purchase’. The third item ‘I consider my current operator as a first choice for mobile phone operators’ was modified to ‘I consider my current brand as a first choice for mobile phone brands’. The fourth item ‘I have said positive things about my mobile operator to other people’ was modified to ‘I have said positive things about this brand to other people’. Finally, the fifth item ‘I have recommend my operator to someone who sought my advice’ was modified to ‘I have recommend this brand to someone who sought my advice’. The items are presented in Table 3.7.

Table 3.7  
*Mobile phone brand loyalty measures (5 items)*

| <b>Measurement Items</b>   |
|--|
| I am a loyalty customer of this brand.                                 |
| I will buy this brand in my next purchase.                             |
| I consider my current brand as a first choice for mobile phone brands. |
| I have said positive things about this brand to other people.          |
| I have recommend this brand to someone who sought my advice.           |

Source: Karjaluoto et al. (2012).

The summarization of number of items for each constructs and their source are presented in Table 3.8 for better clarifications.

Table 3.8  
*Summarization of number of items for each constructs and their source*

| <b>Constructs</b> | <b>Operational definition</b>  | <b>No of Items</b> | <b>Sources</b>     |
|-------------------|--|--------------------|--------------------|
| Utilitarian Value | Utilitarian value is primarily refers to instrumental, functional and practical usefulness or benefits that a particular brand mobile phone offers to the user (Voss et al., (2003). | 5                  | Voss et al. (2003) |

Table 3.8 (continued)

| Constructs           | Operational definition  | No of Items | Sources                             |
|----------------------|---|-------------|-------------------------------------|
| Hedonic Value        | Hedonic value in this research refers to aesthetics, experiential, or sensory related benefits that a particular brand mobile phone offers to the user (Voss et al., 2003). | 5           | Voss et al. (2003)                  |
| Brand Satisfaction   | Brand satisfaction is customer's overall evaluation process whether a particular brand mobile phone meet their expectations and fulfill usage needs (Oliver, 1999).         | 9           | Sahin et al. (2013)                 |
| Emotional Attachment | Emotional attachment to a brand refers to self-implicated emotion-laden bond between the consumer and a mobile phone brand (Thomson et al., 2005)                           | 5           | Lam and Shankar (2014)              |
| Brand Trust          | Brand trust is innate expectations and perceptions about the mobile phone brand's reliability and intention to rely on it (Delgado et al., 2004).                           | 8           | Delgado et al. (2004)               |
| Brand Reputation     | Brand reputation is total recognition on the notable characteristics of a mobile Phone brand(Morgan-Thomas & Veloutsou, 2013).  | 4           | Morgan-Thomson and Veloutsou (2013) |
| Brand Loyalty        | Brand loyalty is repeat purchase the same brand mobile phone over time and make recommendations to others to purchase the same brand mobile phone. (Oliver, 1999)           | 5           | Karjaluoto et al. (2012)            |

### 3.3 Instrumentation

This study utilized interval scale for measuring the constructs because Zikmund and Babin (2010) suggested that powerful statistical calculation such as variance, standard deviation, etc. can be done when the scale used for an instrument is interval. In this



study, two types of interval scale which is Likert scale and Semantic differential scale were used to measure the constructs.

In line with Croasmun and Ostrom (2011), Likert scales are valuable in attitude and social science research ventures. Researchers further explained that Likert scales give a scope of reactions to an announcement or series of statements. Normally, five or seven categories of responses are there in the range of strongly agree to strongly disagree. In regard to the number of categories in a Likert-type scale, there is no clear rule for the suitability of categories that should be used (one to five-point Likert scale or one to seven-point Likert scale). However, study by Finstad (2010) opined that seven point Likert scale have been appeared to be more exact, easier to use and better impression of a respondent's actual assessment. In addition, Cooper and Schindler (2006) pointed out that seven point Likert scale improves the reliability of the measures. Thus, seven point Likert scale were used to measure brand satisfaction, brand trust, emotional attachment, brand reputation and brand loyalty in this study. In fact, past studies used Likert scale to measure the variables in consideration because such scale has been shown to have high validity. According to Hair et al. (2014), a good Likert scale will indicate symmetry of Likert items about a center classification that have plainly characterized phonetic qualifiers for every classification. Therefore, in this study seven point Likert scale with the categories (1) strongly disagree, (2) disagree, (3) slightly, disagree, (4) neutral – being midpoint, (5) slightly agree, (6) agree and (7) strongly disagree were used to measure brand satisfaction, emotional attachment, brand trust, brand reputation and brand loyalty.

Besides that, semantic differential scale is a seven point bipolar rating scale that uses opposing adjectives pair from which respondents select a point corresponding to their disposition about the object or concept in question (Ajani & Stork, 2013). In this study, seven point semantic differential scale were used to measure utilitarian value and hedonic value as suggested by Voss et al. (2003). Finally, the questionnaire was originally prepared in English language but it was translated into Malay version as well for ease of some respondents.

### **3.4 Pretesting of the Instrument**

Before conducting actual survey, an initial draft of the questionnaire was pretested by seeking opinions of two Marketing Professors from Universiti Utara Malaysia (UUM) about the measures' representativeness and appropriateness as suggested by Sekaran (2003). Thereafter, the measures were then altered according to their suggestions for better understanding of respondents. For an example, one item from emotional attachment 'Even if it were to my advantage to switch to another brand, I would not feel good about switching to that brand' was modified to 'Even it is an advantage for me if I switch to another brand but I would not feel good about switching to that brand' as suggested by the marketing professors Moreover, the instructions were also modified according to suggestions given by the experts.

Besides that, the questionnaire was also pretested by approaching five potential respondents for their opinions about the appropriateness of items and their wordings, general formatting (symbol for notes and bolding the important terms) and understandability of the scales leading to any kind of possible difficulty in answering

(as semantic differential scale for utilitarian value and hedonic value do not contain labelling for each category and absence of scaling table for each sections). Finally, suggestions by the respondents were considered for finalizing the questionnaire before conducting the pilot study. For an example, asterisk symbol were used to indicate notes for two items in utilitarian value (functional and practical) for better understanding of the respondents, certain word such as “ONE” in Section A, question two were bold and the font size was increased for the respondent’s visibility, label for each point were included for utilitarian value and hedonic value measures so that it will be easy for respondents to answer, and scaling table were included in each section for the respondents convenience. Thereafter, pilot study were conducted with the latest set of questionnaire (refer Appendix A for questionnaire).

### **3.5 Pilot Study**

In this study, to ensure selected instruments validity and reliability, pilot study was conducted. Gay, Mills and Airasian (2006) stated, pilot study is a small scale study conducted before the full-fledged in order to avoid problems that are usually faced during the main study. Malhotra (2008) suggested that sample size required for pilot study range from 15 to 30, however, the result would be stronger if the sample size is bigger. As this study seek for a stronger predictability, 60 mobile phone users were surveyed. They were targeted through mall intercept at Midvalley Megamall which is one of the largest shopping mall in Klang Valley. 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 was used for the data analysis

using SPSS version 20. Then, internal consistency of each instruments were measured based on pilot study responses.

Generally, reliability coefficient as Cronbach's alpha was calculated for each construct to present that all the items are measuring the same phenomenon and consistent (Jarvis, MacKenzie & Podsakoof, 2003). Furthermore, internal consistencies gained via acceptable Cronbach alpha values is the major criteria for adopting or adapting past instruments (Hair, Anderson, Babin & Black, 2010). Therefore, Cronbach alpha reliability coefficients were calculated for each constructs in this study. Overall, pilot study is mainly conducted to ensure the validity and reliability of instruments and the measurement to be used free from measurement error.

### **3.5.1 Reliability test**

In line with Hair et al (2010), reliability refers to the consistency and stability among multiple items ascertained for a construct. Social Science 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. Table 3.9 presents result of the reliability value for pilot study (refer Appendix B for SPSS output).

Table 3.9  
*Pilot study results*

| <b>Construct</b>           | <b>Number of Original item</b> | <b>Cronbach's Alpha</b> | <b>Item deleted</b> |
|----------------------------|--------------------------------|-------------------------|---------------------|
| Utilitarian value          | 5                              | 0.903                   | Nil                 |
| Hedonic value              | 5                              | 0.958                   | Nil                 |
| Brand satisfaction         | 9                              | 0.953                   | Nil                 |
| Emotional attachment       | 5                              | 0.897                   | Nil                 |
| Brand trust                | 8                              | 0.947                   | Nil                 |
| Brand reputation           | 4                              | 0.968                   | Nil                 |
| Mobile phone brand loyalty | 5                              | 0.906                   | Nil                 |

Value of Cronbach's Alpha in this study ranges from 0.897 to 0.958 which is highly acceptable. Overall, items for each constructs in this study in the questionnaire were reliable and can be used for actual data collection purpose.

### 3.6 Population of the study

Population is the total group of subject or people of interest being investigated (Sekaran & Bougie, 2010). The major purpose of the current study is to investigate Malaysian customer's loyalty behavior towards their mobile phone brand. Klang Valley is the most popular destination in Malaysia with fastest growing population and the national hub of administration, commerce, industries and education (Peng, 2012). Additionally, Yasin and Zahari (2011) also indicated that being the most advance region economically and socially, the Klang Valley is the most densely populated region in Malaysia. Thus, people of diverse background (education, income, household size, etc.) may found to be staying in Klang Valley. Furthermore, Klang

Valley is largest metropolitan in Malaysia that has around 6 million populations and contributed RM263 billion to Gross National Incomes (GNI) in year 2010 (Economic Transformation Programme, 2012). Most importantly, 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). As such, the sample was drawn from the population of Klang Valley for the survey which was structured to be conducted at major shopping centers. This study was structured to be conducted at major shopping malls because shopping mall exhibits high traffic flow and shopper demographic diversity. In fact, many previous studies on mobile phone setting (e.g. Noor, Sreenivasan & Ismail, 2013; Saaksjarvi, Hellen & Tuunanen, 2014; Bojei, Radam & Abu, 2012; Yasin & Zahari, 2011) target their respondents at shopping malls to maximize the chances of capturing a wide socio demographic sample.

### **3.7 Sample Size and Power Analysis**

In survey based research, Barlett, Kotrlik and Higgins (2001) indicated that it is important for researchers to ascertain an accurate sample size in order to reduce the sampling error cost. In this study, the power of statistical test is considered to minimize the total cost sampling error. The definition of statistical test is the probability that null hypotheses (which indicates no significant association between variables) will be rejected when it is in fact false (Faul, Erdfelder, Lang & Buchner, 2007). Prior researchers (e.g. Snijders, 2005; Borenstein, Rothstein & Cohen, 2001; Kelly & Maxwell, 2003) pointed out that when sample size is large, the power of statistical test also great. According to Bruin (2006), the best statistical procedure to

determine the accurate sample size is power analysis. In this study, to ascertain an accurate sample size, a *priori* power analysis was conducted using G\*Power 3.1 software as suggested by Hair et al. (2010). The following parameters were employed: medium effect size  $f^2 = 0.15$ , an alpha significance level ( $\alpha$  err prob = 0.05), and Power ( $1-\beta$  err prob = 0.80), and seven predictors (utilitarian value, hedonic value, brand satisfaction, emotional attachment, brand trust, brand reputation and brand trust\*brand reputation). The details are attached in Appendix C. Hence, the minimum sample size required for this study is 103 to achieve significance level of 0.05 and statistical power of 80% for hypothesis testing. Even though based on priori power analysis, 103 sample size is required but it is worth nothing because the response rate for mall intercept is very low (Groves, 2006). Due to low response rate for mall intercept survey, 103 sample size appears to be inadequate. Despite the low response rate for mall intercept survey, PLS-SEM work well with smaller sample size even for a complex model as compared to CB-SEM which required at least 200 observation to avoid non-convergence and improper solutions (Hair, Sarstedt, Hopkins, & Kuppelwiesier, 2014). Thus, other procedure is needed in order to determine adequate sample size for this study. Therefore, Krejcie and Morgan's (1970) method to determine the sample size is also employed in this study because it considers the accuracy level and confidence regarding minimized sampling error.

The population of consumers in Klang Valley is approximately 6 million. According to Krejcie and Morgan (1970), the minimum sample size for the population of 1 million is 384. The details are presented in table 3.10.

Table 3.10

*Rule of thumb (Krejcie & Morgan 1970)*

| <b>Population (N)</b> | <b>Sample Size (S)</b> |
|-----------------------|------------------------|
| 10 000                | 370                    |
| 15 000                | 375                    |
| 20 000                | 377                    |
| 30 000                | 379                    |
| 40 000                | 380                    |
| 50 000                | 381                    |
| 75 000                | 382                    |
| 1,000,000             | 384                    |

Source: Krejcie and Morgan (1970)

Table generated by Krejcie and Morgan (1970) for a given population of 6 million, shows that a sample size of 384 would be required to represent the population of this study. However, Bernard (2011) pointed out that the response rate for mall intercept survey is approximately 80%, indicating that 20% is non response rate. Therefore, in this study, the sample size of 384 was increased by 20% to minimize the non-response rate. As a result, the final sample size is 460.

### 3.8 Sampling Design

Pursuant to Sekaran and Bougie (2010), sampling is the way toward choosing adequate number of the correct components from the population so that the explanation of sample's properties would facilitate generalizing such characteristics for the whole population. Following a probability sampling procedure, multistage area probability sampling is used in this study as recommended by Sudman (1980) in order to gather data that are the sufficiently representing the population of study. Firstly,



Klang Valley is clustered into ten districts according to its local authorities namely Kuala Lumpur City Hall, Putrajaya Corporation, Shah Alam City Council, Petaling Jaya City Council, Subang Jaya City Council, Klang Municipal Council, Selayang Municipal Council, Ampang Jaya Municipal Council, Kajang Municipal Council and Sepang Municipal Council (Ong, Salleh & Zien Yusoff, 2015). Thereafter, the sample size of 460 was bifurcated proportionately among the ten districts as indicated in Table 3.11:

Table 3.11  
*Population in Klang Valley*

| No    | Area          | Population<br>(‘000) | Percentage<br>% | Sample<br>Size | Sample Size<br>* 20% |
|-------|---------------|----------------------|-----------------|----------------|----------------------|
| 1.    | Kuala Lumpur  | 1723                 | 30.0%           | 114            | 137                  |
| 2.    | Putrajaya     | 89                   | 1.5%            | 6              | 7                    |
| 3.    | Shah Alam     | 528                  | 9.1%            | 35             | 42                   |
| 4.    | Petaling Jaya | 577                  | 10.0%           | 38             | 46                   |
| 5.    | Subang Jaya   | 583                  | 10.1%           | 39             | 47                   |
| 6.    | Klang         | 747                  | 12.9%           | 50             | 60                   |
| 7.    | Selayang      | 559                  | 9.7%            | 37             | 43                   |
| 8.    | Ampang Jaya   | 142                  | 2.4%            | 9              | 11                   |
| 9.    | Kajang        | 743                  | 12.9%           | 50             | 60                   |
| 10.   | Sepang        | 85                   | 1.5%            | 6              | 7                    |
| Total |               | 5776                 | 100%            | 384            | 460                  |

Note: The population is based on the 2010 Population and Housing Census of Malaysia.

According to Department of Statistics Malaysia (2017), the Population and Housing Census is conducted once in every 10 years and the last Census was conducted in 2010.

In the next step, one major shopping mall in each district were randomly selected on the basis of high popularity aspects and approval from the mall management. The details are presented in table 3.12.

Table 3.12  
*Selected Malls*

| No  | Area          | Shopping Center        | Sample Size |
|-----|---------------|------------------------|-------------|
| 1.  | Kuala Lumpur  | Nu Sentral             | 137         |
| 2.  | Putrajaya     | Alamanda Putrajaya     | 7           |
| 3.  | Shah Alam     | Setia City Mall        | 42          |
| 4.  | Petaling Jaya | Paradigm Mall          | 46          |
| 5.  | Subang Jaya   | Subang Parade          | 47          |
| 6.  | Klang         | Klang Parade           | 60          |
| 7.  | Selayang      | Selayang Mall          | 43          |
| 8.  | Ampang Jaya   | Spectrum Shopping Mall | 11          |
| 9.  | Kajang        | Metro Point Complex    | 60          |
| 10. | Sepang        | Mitsui Outlet Park     | 7           |

Then this study was conducted over a variety of days (weekdays and weekends) and also was conducted at a variety of times of day and evening to ensure greater diversity in respondents and for the purpose of time sampling as suggested by Lavrakas (2008) and Sudman, (1980). In this study, the questionnaires were distributed on random weekdays and weekends and in the first half (10am – 3pm) as well as second half (3pm – 8pm) as suggested by Sudman (1980). It should be noted that, most shopping

malls have more than two entrances. However, it was not possible to sample all gates. Therefore, only one entrance with high traffic flow were considered at each mall in this study.

Finally, a systematic sample of respondents at the malls were selected rather than allowing the researcher to approach respondents at the researcher's own convenience as suggested by Lavrakas (2008). In this study, every 10th entering customers were approached to complete the questionnaire as suggested by Mabkhot et al. (2016). If the 10th customer refuse to answer the questionnaire, then the questionnaire was given to the next 10th customer as a substitute.

### **3.9 Data Collection Procedure**

In this study, customer survey was conducted in shopping malls across Klang Valley. The researcher and well trained enumerators surveyed 460 respondents personally using a structured questionnaire. The two enumerators had experience in collecting data and master degree students. However, the enumerators were well trained before taking them to the field. They were trained regarding the survey instruments (e.g. meaning of functional and impractical) and general guidelines (e.g. scaling) to be explained to the respondents. The survey was carried out in Klang Valley during a seven weeks period from early of May 2016 to mid of June 2016 and the number of respondents surveyed in a particular period of day is recorded by the researcher. In this study, 460 questionnaires were distributed across the selected mall in each district in Klang Valley. Within 460 questionnaires, 294 questionnaires were being viewed by the researcher and enumerators while respondents answered and they were checked

immediately for any unanswered questions before a free pen is given to the respondents. The researcher and enumerators kindly asked the respondents to answer if there is any omission or unticked responses. Meanwhile, some respondents' feel that the questionnaire consist of large number of questions. Hence, 37 respondents did not answer the questionnaire completely where most of the sections were not answered. On the other hand, if respondents unwilling to answer immediately, the questionnaires were given to respondents and they were requested to return back the questionnaire after their shopping. Hence, 129 questionnaires were given to the respondents and requested to return back after their shopping. In this case, only 33 questionnaires were returned, indicating that 96 questionnaire were not returned. This clearly shows that some respondents were very supportive and willing to participate in the survey while some respondents were not supportive at all. The details are presented in table 3.13.

Table 3.13

*The sample of district and selected malls*

| Area          | Shopping Center        | Sample Size | Not Returned | Not Valid | Valid      |
|---------------|------------------------|-------------|--------------|-----------|------------|
| Kuala Lumpur  | Nu Sentral             | 137         | 32           | 12        | 93         |
| Putrajaya     | Alamanda Putrajaya     | 7           | 0            | 0         | 7          |
| Shah Alam     | Setia City Mall        | 42          | 4            | 6         | 32         |
| Petaling Jaya | Paradigm Mall          | 46          | 15           | 9         | 22         |
| Subang Jaya   | Subang Parade          | 47          | 13           | 3         | 31         |
| Klang         | Klang Parade           | 60          | 14           | 4         | 42         |
| Selayang      | Selayang Mall          | 43          | 7            | 0         | 36         |
| Ampang Jaya   | Spectrum Shopping Mall | 11          | 0            | 0         | 11         |
| Kajang        | Metro Point Complex    | 60          | 11           | 2         | 47         |
| Sepang        | Mitsui Outlet Park     | 7           | 0            | 1         | 6          |
| <b>Total</b>  |                        | <b>469</b>  | <b>96</b>    | <b>37</b> | <b>327</b> |

### **3.10 Data analysis strategy**

Data analysis in this study was done by using descriptive and inferential statistics. As such, SPSS 20 were employed for descriptive analysis. Descriptive analysis were done to explain about the demography and profiling by summarizing the data and to delineate the data by showing the frequency of occurrence of various outcomes (Agresti & Finlay, 20009). In addition, the center of the data and the variability of the data set is discussed in descriptive statistics in order to provide more understanding of the issues. Besides that, in order to make predictions from the data, inferential analysis was done by employing Structural Equation Model (SEM). SEM is highly recommended by highly indexed journals, one of the most prominent statistical analysis techniques today and has highest precision as of to date (Hair et al., 2010).

SEM is a powerful second generation multivariate technique that enables to explain the configuration of a series of linked dependence interactions simultaneously between the measured variables as well as between latent variables (Hair et al., 2014). As such, this study employed structural equation modeling to examine the relationships between cognitive (utilitarian value and hedonic value), affective (brand satisfaction and emotional attachment), conative (brand trust) and action (mobile phone brand loyalty) in consecutive manner simultaneously. Moreover, SEM has the ability to correct the measurement error, hence the strength of the relationship between two factors can be assessed in a more accurate manner (Hair et al., 2010). Generally, there are two approaches to estimate the relationship in a SEM namely covariance based SEM (CB-SEM) and variance based SEM (PLS-SEM). According to Hair et al. (2014), CB-SEM is to reproduce the theoretical covariance matrix without

concentrating on explained variance though PLS-SEM is to augment the explained variance of the endogenous constructs. Therefore, researchers should decide when to use CB-SEM and PLS-SEM based on the objective of their study.

The main concern of current study is to examine the sequential linkage of utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and brand loyalty, indicating that the essential concentration of this study is on seeing every particular path coefficient and variance explained as opposed to model fitness. Furthermore, the goal of this study is also to predict the moderating role of brand reputation between brand trust and brand loyalty which has not been given great attention by the researchers in the past. This requires PLS path modelling approach to be employed because researchers (e.g. Hair et al., 2014; Henseler, Ringle, & Sinkovics, 2009) have suggested that if research is explanation of variance (prediction of constructs) or an extension of an existing theory, PLS path modelling should be employed. Therefore, this is the main reason for choosing PLS-SEM as tool of analysis in this study, relative to covariance based.

Besides that, PLS-SEM is suitable for complex models with many relationships, constructs or indicator. This study therefore used PLS-SEM because it is capable to handle the complex model of this study where there are four stages with multi variable in each stage and due to its predictive orientation. In addition, PLS-SEM can be used when the structural model does not contain circular relationship between the latent variables (when the model is noncursive). In this study, the model is recursive in which causation flows in only one direction. Thus, PLS-SEM is well suited for this study. Apart from that, Hair, Sarstedt and Ringle (2011) indicated that PLS-SEM is no

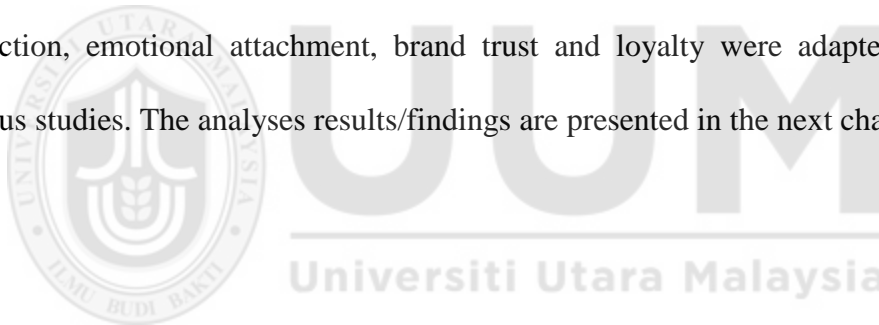
doubt a silver bullet in various research scenarios and extensively accepted in marketing research. Such issues aforementioned have made the researcher to use variance based SEM using SmartPLS 3.0 software developed by Ringle, Wende and Becker (2014) for analysis.

In this study, several steps were followed in the data analysis. Firstly, the collected data was screen using SPSS 20 to ensure that it is suitable for the PLS analysis. In data screening stage, missing value analysis, assessment of outliers, normality test and multicollinearity test were conducted. According to Henseler, Ringle and Sinkovics (2009), there are two steps for SEM process. Firstly, measurement model development and its testing, secondly, to repeat same process with structural model. Therefore, for testing measurement model, individual item reliabilities, internal consistency reliabilities, convergent validity and discriminant validity were calculated using Smart PLS 3.0 Subsequently, to evaluate the structural model, standard bootstrapping procedure with a number of 1000 bootstrap samples and 327 cases was applied (Hair et al., 2014; Henseler et al., 2009). Specifically, path coefficients significance ( $\beta$ ), level of the  $R$ -squared values ( $R^2$ ), effect size ( $f^2$ ) and predictive relevance of the model ( $Q^2$ ) were assessed as suggested by Hair et al. (2014). Further, Hair et al. (2014) suggested that for moderator analysis product indicator approach is applicable when both moderator and exogenous latent variables are operationalized reflectively. Since, the operationalization of moderator (brand reputation) and exogenous variable (brand trust) is reflective, product indicator approach was used to test the moderating influence of brand reputation on the relationship between brand trust and brand

loyalty. Finally, the fourth step requires the finding out the quality of the moderating impacts utilizing Cohen's (1988) effect size formula (see Table 4.11).

### **3.11 Summary of the chapter**

This chapter has discussed about the research design, operationalization and measurement of the variables, instrumentation, pilot study, population, sampling design, data collection procedure and data analysis strategy. In the present study, mobile phone users who resides in Klang Valley are the unit of analysis. A multistage area probability sampling were used for the current study. Measurement scales to measure the variables of the study namely utilitarian value, hedonic value, brand satisfaction, emotional attachment, brand trust and loyalty were adapted from the previous studies. The analyses results/findings are presented in the next chapter.





## **CHAPTER 4**

### **DATA ANALYSES AND RESULTS**

#### **4.1 Introduction**

The main purpose of this chapter is to present findings of this research based on the data collected through a survey questionnaire from the targeted respondents. In particular, this chapter begins by reporting the initial data screening and preliminary analysis. This analysis includes missing value analysis, assessment of outliers, normality test and multicollinearity test. Subsequently, Partial Least Square Structure Equation Modelling (PLS-SEM) were employed to analyze the data and the results were reported in two sections. In the first section, measurement model was presented and structural model was presented in the second section. Thereafter, results of the complementary PLS analysis, which examines the moderating effects of brand reputation on the structural model were reported.

#### **4.2 Response rate**

Response rate can be ascertained by dividing the quantity of respondents who participated in the survey to the sample size decided for the study (Hamilton, 2009). In this study a total of 460 customers was surveyed at the shopping malls across the Klang Valley. As this study conducted a consumer survey, the customers were surveyed directly by the researcher and enumerators. The response rate of this study is 71%, which is considered a normal rate for the mall intercept survey (Bernard, 2011). However, there were other issues such as respondents were not interested to

participate/fill up the survey/questionnaire, respondents did not return the questionnaires and some respondents did not answer the questionnaires completely due to large number of questions.

In this study, 460 questionnaires were distributed across the selected mall in each district in Klang Valley. The outcomes of these attempts yielded 364 returned questionnaires, indicating that 96 questionnaires were not returned. Of these 364 questionnaires, 37 questionnaires were incomplete (most the significant sections were not answered) because respondents refuse to answer completely. As a result, 37 questionnaires were excluded and only 327 useable questionnaires were used for further analysis. This accounted for 71% valid response rate (refer Table 4.1).

Table 4.1  
*Response rate*

| <b>Response</b>                                    | <b>Frequency<br/>(N)</b> | <b>Rate (%)</b> |
|--|--------------------------|-----------------|
| Overall questionnaire distributed                  | 460                      |                 |
| Not returned questionnaire                         | 96                       |                 |
| Response rate $(460-96) / 460 \times 100$          |                          | 79%             |
| Returned and excluded                              | 37                       |                 |
| Valid response rate $(460-96-37) / 460 \times 100$ |                          | 71%             |

#### **4.3 Data screening and preliminary**

Data screening is a vital procedure to ensure that there are no any ambiguous data characteristics that may influence the result. Prior to the initial data screening, 327 cases were coded and entered into the SPSS 20. Subsequently, the following

preliminary data analysis was performed: (1) missing value (2) outlier detection (3) normality test and (4) multicollinearity test as recommended by Hair et al. (2010).

#### **4.3.1 Missing value analysis**

Missing data are considered as an issue of significant concern because this issue usually has an effect on the results (Cavana, Delahaye & Sekaran, 2001). According to Sekaran and Bougie (2010), missing data primarily occur for reasons such as respondents did not understand the questions or they face difficulty in answering certain questions or lack of willingness to answer. Hair et al. (2010) pointed out that missing data is a common issue in surveys.

The questionnaires in this study were being viewed by the researcher and enumerators while respondents answered and they were checked immediately for any unanswered questions before a free pen is given to the respondents. The researchers and the enumerators kindly asked the respondents to answer if there is any omission or unticked responses. Even after adequate caution, there were 12 data points were found missing when data entry was done. Hence, in the actual data of this research, 12 were randomly missed out of  $(48 \times 327)15696$  data points, which accounted for 0.08%. Particularly, utilitarian value, hedonic value, brand loyalty, and marital had 1 missing value. Likewise, brand satisfaction has 4 missing values. On the other hand, brand trust had 3 missing values and finally income had 2 missing values. Tabachnick and Fidell (2007) indicated that if only a few data points (e.g. 5% or less) are missing in an irregular example from an extensive informational collection, the issues are less serious and any technique for taking care of missing values yields comparative

outcomes. Since, the present study had only 0.08 % missing rate, this study handled missing value by replacing it with the mean value in SPSS because mean substitution has been a popular way to estimate missing values, (Tabachnick & Fidell, 2007). Table 4.2 provides the overall and percentage of random missing values (refer Appendix D for SPSS output).

Table 4.2  
*Total and percentage of missing value*

| <b>Variables<br/>Values</b>                               | <b>Number of Missing</b> |
|---|--------------------------|
| Utilitarian value   | 1                        |
| Hedonic value   | 1                        |
| Brand satisfaction  | 4                        |
| Brand trust   | 3                        |
| Brand Loyalty   | 1                        |
| Marital Status  | 1                        |
| Income  | 1                        |
| Total number of missing values                            | 12                       |
| Total percentage of missing value $(12/15696) \times 100$ | 0.08%                    |

#### **4.3.2 Assessment of outliers**

Outliers refer to any observations which are distinctively different with the remainder of the data (Barnett & Lewis, 1994). According to Verardi and Croux (2008), the existence of outliers in a regression analysis can influence the estimates of regression coefficients and lead to unreliable results.

In this study, the data was examined using Mahalanobis Distance (D2) in detecting outliers. Mahalanobis distance (D2) is defined as the separation of a case from the

centroid of the rest of the situations where the centroid is the point made at the crossing point of the method for every one of the factors (Tabachnick & Fidell, 2007). The recommended threshold of chi-square for 41 observed variables is 74.745 ( $p=0.001$ ). The chi-square table is presented in Appendix E. As such, any value above 74.745 is to be deleted. However, the prevailing values were all below the stipulated threshold, hence none of the questionnaires were eliminated. In current study maximum recorded Mahalanobis Distance value is 70.406 (refer Appendix F for SPSS output). Hence, the final number of data in this study remain 327.

#### **4.3.3 Normality Test**

Prior researchers (eg Wetzels Odekerken – Schroder & Van Oppen, 2009; Reinartz, Haenlein & Henseler, 2009) pointed out that PLS-SEM generates accurate model estimations even though the data is not normally distributed. In contrast, a recent study by Hair, Sarstedt, Ringle and Mena (2012) posited that it is necessary for researchers to perform normality assessment on their dataset. According to Chernick (2008), highly skewed and kurtosis will inflate the bootstrapped standard error estimates and thereby underestimates the statistical significance of the path coefficients (Ringle, Sarstedt, & Straub, 2012).

However, interestingly, study by Field (2009) further pointed out that the graphical method of normality test is more important than the value of the skewness and kurtosis when the sample size is more than 200. Furthermore, Field (2009) pointed out that large sample lead to decrease in standard error, thereby inflate the value of kurtosis and skewness value statistics. Thus, it is fair to say that the graphical method of

normality test appears to be an important method for large datasets. Since this study has 327 datasets which is more than 200, graphical method is the suitable method to check for the normality of data collected. As suggested by Field (2009), in this study, a histogram and normal probability plots were investigated in order to ensure the collected data are normally distributed. Figure 4.1 illustrates that the data of this study follow the normal pattern every one of the bars on the histogram were close to the normal curve. Hence, it can be concluded that in current study normality assumptions not desecrated.

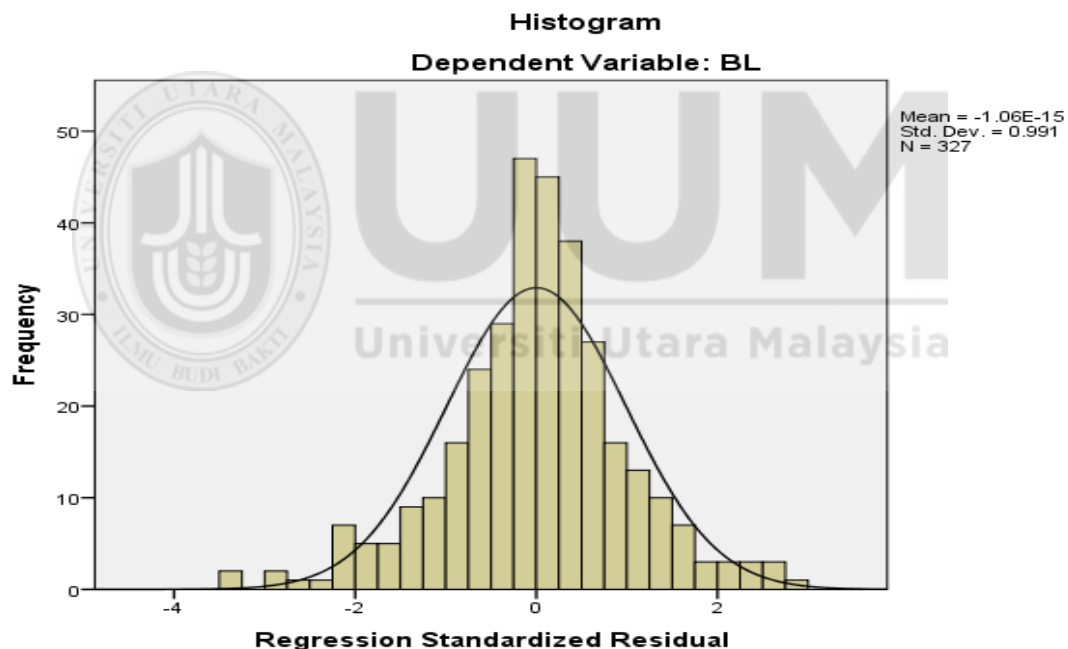


Figure 4.1  
*Histogram and Normal Probability Plots*

#### 4.3.4 Multicollinearity test

Multicollinearity occur when exogenous latent variables have high correlation with each other (Pallant, 2001). Hair, Black, Anderson and Tathham (2006) indicated that

the existence of multicollinearity may distort the statistical significance tests and the estimates of regression coefficients. Tabachnick and Fidell (2007) further explored that the presence of multicollinearity can increase the standard error of its coefficients and thereby the coefficients become non-significant.

In the present study, Tolerance value, Variance Inflation Factor (VIF) and condition index were investigated to check the existence of multicollinearity threat. According to Hair, Ringle, and Sarstedt (2011), multicollinearity occur when tolerance value is less than 0.20, VIF is more than 5 and condition index is higher than 30. Table 4.3 presents the results of the multicollinearity test using SPSS 20 (refer Appendix G for SPSS output).

Table 4.3  
*Tolerance Value, Variance Inflation Factor (VIF) and Condition Index.*

| DV's                 | IV's                 | Tolerance Value | VIF   | Condition Index |
|----------------------|----------------------|-----------------|-------|-----------------|
| Brand Trust          | Brand Loyalty        | 1.00            | 1.00  | 9.329           |
| Brand Satisfaction   | Brand Trust          | 0.765           | 1.306 | 6.984           |
| Emotional Attachment |                      | 0.765           | 1.306 | 13.209          |
| Utilitarian Value    | Brand Satisfaction   | 0.443           | 2.256 | 9.416           |
| Hedonic Value        |                      | 0.443           | 2.256 | 14.393          |
| Utilitarian Value    | Emotional Attachment | 0.443           | 2.256 | 9.416           |
| Hedonic Value        |                      | 0.443           | 2.256 | 14.393          |

Table 4.3 indicates that there is no multicollinearity among the exogenous variables because tolerance value higher than 0.20, VIF value below 5 and condition index less than 30 as postulated by Hair et al. (2010). Hence, the results confirmed that the threat of multicollinearity did not exist.

#### 4.4 Non Response Bias

Non response bias is basically defined as the alteration between the respondents and non-respondents answers (Lambert & Harrington, 1990). According to Armstrong and Overton (1977), respondents who responses late to the survey had similar characteristics to non-respondents. Therefore, they suggested the time-trend extrapolation approach which entails a comparison between the answers of early respondents and late respondents (consider as non – respondents). As per Armstrong and Overton's (1977) time trend extrapolation approach, this study grouped the respondents into two groups. The respondents who responded immediately were grouped as early respondents and those who responded after their shopping (after reminder) were grouped as late respondents. Most of the respondents that is 294 (90%) responded to the questionnaire immediately because of the researcher and enumerator's effort in convincing the respondents that a free gift will be given upon returning the questionnaire. On the other hand, 33 respondents representing 10% responded the questionnaire after their shopping and after reminded by the researcher and enumerators. Thereafter, these two groups were compared on all variables. The details are presented in Table 4.4 (refer Appendix H for SPSS output).

Table 4.4  
*Group Statistics*

| <b>Variables</b>  | <b>Group</b> | <b>N</b> | <b>Mean</b> | <b>SD</b> |
|-------------------|--------------|----------|-------------|-----------|
| Utilitarian Value | Early        | 294      | 5.41        | 1.32      |
|                   | Late         | 33       | 5.27        | 1.12      |
| Hedonic Value     | Early        | 294      | 5.26        | 1.28      |
|                   | Late         | 33       | 4.93        | 1.44      |



Table 4.4 (continued)

| <b>Variables</b>     | <b>Group</b> | <b>N</b> | <b>Mean</b> | <b>SD</b> |
|----------------------|--------------|----------|-------------|-----------|
| Brand Satisfaction   | Early        | 294      | 5.30        | 1.02      |
|                      | Late         | 33       | 5.18        | 1.00      |
| Emotional Attachment | Early        | 294      | 4.32        | 1.53      |
|                      | Late         | 33       | 4.55        | 1.29      |
| Brand Trust          | Early        | 294      | 4.92        | 1.08      |
|                      | Late         | 33       | 4.82        | 0.98      |
| Brand Reputation     | Early        | 294      | 5.68        | 1.21      |
|                      | Late         | 33       | 5.56        | 1.10      |
| Brand Loyalty        | Early        | 294      | 4.86        | 1.37      |
|                      | Late         | 33       | 4.96        | 1.06      |

Subsequently, an independent t-test were used to test whether the mean score differs between early and late respondent as suggested by Pallant (2011). The results of independent sample t-test of the current study are presented in Table 4.5 (refer Appendix I for SPSS output).

Table 4.5

*Independent Sample t-test Results*

| <b>Variable</b>   | <b>Levene's Test for Equality of Variances</b> |            | <b>t-test for Equality of Means</b> |           |                      |
|-------------------|--|------------|-------------------------------------|-----------|----------------------|
|                   | <b>F-value</b>                                 | <b>Sig</b> | <b>t-value</b>                      | <b>Df</b> | <b>Sig (2tailed)</b> |
| Utilitarian Value |  |            |                                     |           |                      |
| EV                | 1.210  | 0.272      | 0.555                               | 325       | 0.579                |
| UEV               |  |            | 0.633                               | 42.633    | 0.530                |
| Hedonic Value     |  |            |                                     |           |                      |
| EV                | 0.096  | 0.755      | 1.358                               | 325       | 0.175                |
| UEV               |  |            | 1.234                               | 37.871    | 0.225                |

Table 4.5 (continued)

| Variable             | Levene's Test for Equality of Variances |       | t-test for Equality of Means |        |               |
|----------------------|---|-------|------------------------------|--------|---------------|
|                      | F-value                                 | Sig   | t-value                      | Df     | Sig (2tailed) |
| Brand Satisfaction   |   |       |                              |        |               |
| EV                   | 0.131                                   | 0.718 | 0.610                        | 325    | 0.542         |
| UEV                  |   |       | 0.620                        | 39.842 | 0.539         |
| Emotional Attachment |   |       |                              |        |               |
| EV                   | 0.665                                   | 0.415 | -0.809                       | 325    | 0.542         |
| UEV                  |   |       | -0.925                       | 42.746 | 0.360         |
| Brand Trust          |   |       |                              |        |               |
| EV                   | 0.009                                   | 0.924 | 0.539                        | 325    | 0.590         |
| UEV                  |   |       | 0.583                        | 41.272 | 0.563         |
| Brand Reputation     |   |       |                              |        |               |
| EV                   | 0.288                                   | 0.592 | 0.541                        | 325    | 0.589         |
| UEV                  |   |       | 0.584                        | 41.198 | 0.562         |
| Brand Loyalty        |   |       |                              |        |               |
| EV                   | 2.576                                   | 0.109 | -0.408                       | 325    | 0.683         |
| UEV                  |   |       | -0.499                       | 44.803 | 0.620         |

Note: EV (Equal Variance), UEV (Unequal Variance).

Based on the above table, the results of Levene's test for equality of variances indicate significance value larger than 0.05 for all variables as suggested by Pallant (2011). This implies the presumption of equivalent variance amongst early and late respondents has not been desecrated.

Furthermore, to find out whether there is a significant difference between early and late respondents, Sig. (2 tailed) column labelled were referred, following Pallant's (2011) suggestion. There were two values, the first line value is for equal variance and the second line is for unequal variance. According to Pallant (2011), if significance

value for Levene's test is larger than 0.05, then equal variance should be referred. Therefore, in this study, the value of equal variance were referred. The significance value of all variables larger than 0.05 as postulated by Pallant (2011). As the significance value is above 0.05, it can be concluded that there are no mean differences for both early and late respondents. Overall, the issue of non-response bias does not appear to be a major concern in this study.

#### **4.5 Common Method Variance (CMV)**

Common Method Variance (CMV) relates to variance inferable from estimation technique as opposed to the construct or constructs purportedly represented by the measures (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). CMV test is basic when self-managed are utilized to gather the data in the meantime from similar respondents specifically when both the dependent and independent factors are acquired from a similar individual (Podsakoff et al., 2003). According to Bagozzi and Yi (1991), method biases are the main sources of measurement error. They further explained that measurement error is widely to have both a random and a systematic error. Both irregular and orderly blunders meddle with the capacity to precisely catch a relationship, however the last is viewed as a more extreme danger. Random error is regularly tended to by utilizing multiple items that look to catch the same basic construct (Podsakoff et al., 2003). Systematic measurement error is a serious problem because it inflate and deflate the observed relationships between constructs, thus can significantly threaten the validity of research findings (Podsakoff et al., 2003).

Several researchers (e.g. Podsakoff et al., 2003; Podsakoff et al., 2012) have noted that there are two principal approaches to control for strategy inclinations. One way is to statistically control for the impacts of method biases after the data have been gathered. On the other is to limit their belongings through the cautious outline of the study's procedures. The procedural remedy that has been used in this study to control method variance was improving scale item as suggested by Podsakoff et al. (2003). This was achieved by defining the unfamiliar terms (e.g. functional and practical – utilitarian value items), the scale items were written clearly and precisely (e.g. each category of semantic differential scale were labeled) and the questions were kept simple, concise and specific. Another procedural remedy was reducing evaluation apprehension. This was done by assuring the respondents should answer fairly and there is no right or wrong answer. This will make them feel less likely to edit their responses to be more acquiescent, lenient and consistent with how they think the researcher wants them to be.

Finally, statistical remedy was employed to detect common method variance. Harman's (1967) single factor test was employed by adding all primary constructs into a main component factor analysis. Podsakoff et al. (2003) indicated that when a solitary element rise or one general variable account for most covariance among the variables, then common method variance is present. In this study, factor analysis was run without rotation using SPSS 20. The result of the analysis yielded six factor solution explaining 74.438% of the variance and the first factors explains only 41.806 (refer Appendix J) of the total variance which is less than 50% (c.f., Kumar, 2012).

Hence, this clearly shows that common method variance is not a major issue in this study.

#### 4.6 Respondent's profiles

Clear understanding about the demographic profile of the respondents is necessary in order to provide a coherent explanation of the results. In this study, demographic characteristics such as mobile phone brand, gender, ethnicity, age, marital status, higher education, occupation and monthly income were examined and the results were presented in Table 4.6 (refer Appendix K for SPSS output).

Table 4.6  
*Profile of respondents and mobile phone brands*

| Item Descriptions  |            | Frequency<br>(n) | Percentage<br>(%) |
|--------------------|------------|------------------|-------------------|
| Mobile Phone Brand | Apple      | 55               | 16.8              |
|                    | Samsung    | 115              | 35.2              |
|                    | Nokia      | 20               | 6.1               |
|                    | HTC        | 9                | 2.8               |
|                    | Blackberry | 7                | 2.1               |
|                    | Sony       | 17               | 5.2               |
|                    | Motorola   | 2                | 0.6               |
|                    | LG         | 4                | 1.2               |
|                    | Lenovo     | 33               | 10.1              |
|                    | Asus       | 14               | 4.3               |
|                    | Huawei     | 6                | 1.8               |
|                    | Oppo       | 14               | 4.3               |
|                    | Acer       | 4                | 1.2               |
|                    | ZTE        | 0                | 0                 |
|                    | Xiaomi     | 20               | 6.1               |
|                    | Others     | 7                | 2.1               |
| Gender             | Male       | 133              | 40.7              |
|                    | Female     | 194              | 59.3              |

Table 4.6 (continued)

| Item Descriptions |                     | Frequency<br>(n) | Percentage<br>(%) |
|-------------------|---------------------|------------------|-------------------|
| Ethnicity         | Malay               | 146              | 44.6              |
|                   | Chinese             | 83               | 25.4              |
|                   | Indian              | 95               | 29.1              |
|                   | Others              | 3                | 0.9               |
| Age               | 20 years and below  | 6                | 1.8               |
|                   | 21-30 years         | 149              | 45.6              |
|                   | 31-40 years         | 110              | 33.6              |
|                   | 41-50 years         | 40               | 12.2              |
|                   | 51-60 years         | 19               | 5.8               |
|                   | 60 years and above  | 3                | 0.9               |
| Marital Status    | Single              | 144              | 44.0              |
|                   | Married             | 183              | 56.0              |
| Highest Education | Primary school      | 2                | 0.6               |
|                   | Secondary school    | 48               | 14.7              |
|                   | College (Cert, Dip) | 100              | 30.6              |
|                   | Degree              | 148              | 45.3              |
|                   | Post Degree         | 29               | 8.9               |
| Occupation        | Student             | 13               | 4.0               |
|                   | Employee            | 284              | 86.9              |
|                   | Self-employed       | 18               | 5.5               |
|                   | Unemployed          | 5                | 1.5               |
|                   | Housewife           | 7                | 2.1               |
| Monthly Income    | RM1000 and below    | 22               | 6.7               |
|                   | RM1001-RM3000       | 107              | 32.7              |
|                   | RM3001-RM5000       | 132              | 40.4              |
|                   | RM5001-RM7000       | 36               | 11.0              |
|                   | RM7001-RM9000       | 12               | 3.7               |
|                   | RM9001-RM11000      | 2                | 0.6               |
|                   | RM11001 and above   | 2                | 0.6               |
|                   | No income           | 14               | 4.3               |

As shown in Table 4.6, the majority of the respondents in the survey, that is 35.2% were using Samsung brand mobile phone, followed by Apple (16.8%), Lenovo

(10.1%), Nokia (6.1%), Xiaomi (6.1%), Sony (5.2%), Asus (4.3%), Oppo (4.3%), HTC (2.8%), Blackberry (2.1%), others (2.1%), Huawei (1.8%), LG (1.25), Acer (1.2%) and Motorola (0.6%).

Most of the respondents, that is 194 (59.3%) were females, while the remaining 133 (40.7%) were males. As for the ethnic background, 44.6% of the respondents were Malays, followed by Indian (29.1. %), Chinese (25.4%) and others (3%). Moreover, 1.8% of the respondents were tend to be in the age group of below 20, 45.6% of them were between 21 – 30, 33.6% were in the age group of 31-40, 12.2% were in the age bracket of 41-50, 5.8% were between 51-60 and finally 0.9% were ranging between 61 and above.

A majority, 56% of the respondents were married and remaining 44% were single. Regarding the education level, 45.3% of the respondents were degree holders. This is followed by 30.6% possess diploma and certificate, 14.7% of the respondents were up to secondary school, 8.9% were masters and PhD holders and 0.6% were only primary school leavers. Thereafter, most of the respondents were employed 86.9%, 5.5 % were self-employed, 4.0 % were students, 2.1% were housewife and 1.5% of the respondents were unemployed. As for monthly income, 40.4% of the respondents indicated the household income to be from RM3001 - RM5000. Moreover, 32.7% of respondents were in the range of RM1001 – RM 3000, followed by 11% (RM5001 – RM7000), 6.7% (below RM1000), 4.3% (no income) and 3.7% (RM7001 – RM9000), 0.6% (RM9001 – RM11000 and more than RM11001). To sum up, respondents in this study were from diverse demographic and economic background who resides in Klang Valley.

#### 4.7 Descriptive statistics

Descriptive statistics were performed in the present study to describe main features of the data in this study from perspective of respondents on every latent variable employed in this study. Descriptive statistics for the latent variables explained in the form of Means and Standard Deviation and thereby provide a general view of how the respondents have responded to the items in the survey and how great the measures and items are (Sekaran & Bougie, 2010). The result of descriptive analysis of the present study is presented in the Table 4.7 (refer Appendix L for SPSS output).

Table 4.7  
*Descriptive statistics for Latent Variables (N = 327).*

| <b>Latent<br/>Varibale</b> | <b>Min</b> | <b>Max</b> | <b>Mean</b> | <b>Standard<br/>Deviation</b> |
|----------------------------|------------|------------|-------------|-------------------------------|
| Utilitarian value          | 1.00       | 7.00       | 5.3982      | 1.30130                       |
| Hedonic value              | 1.00       | 7.00       | 5.2232      | 1.29471                       |
| Brand satisfaction         | 1.22       | 7.00       | 5.2847      | 1.02081                       |
| Emotional attachment       | 1.00       | 7.00       | 4.3443      | 1.50548                       |
| Brand trust                | 1.00       | 7.00       | 4.9132      | 1.06722                       |
| Brand reputation           | 1.00       | 7.00       | 5.6682      | 1.20263                       |
| Brand loyalty              | 1.00       | 7.00       | 4.8672      | 1.33756                       |

Table 4.7 demonstrates that the overall mean of all latent variables ranged from 4.3443 to 5.6682 which were all above the average value. The standard deviation of all the latent variables ranged from 1.02081 and 1.50548, which reflected the existence of adequate acceptable variability within the dataset. As such, it was shown that the respondents' opinions in this study clearly reflect to an acceptable and a satisfactory



level of implementation with regard to all variables, namely utilitarian value, hedonic value, brand satisfaction, emotional attachment, brand trust, brand reputation and mobile phone brand loyalty.

#### 4.8 Evaluation of PLS-SEM Path Model Results

According to Henseler et al. (2009), a SEM process requires two steps: 1) developing and testing a measurement model and 2) developing and testing a structural model. The measurement model serves to create a structural model including paths representing the hypothesized associations among the research constructs. Hence, in this study, the measurement model was assessed first and followed by structural model, as given in Figure 4.2 (Henseler et al., 2009; Hair et al., 2014).

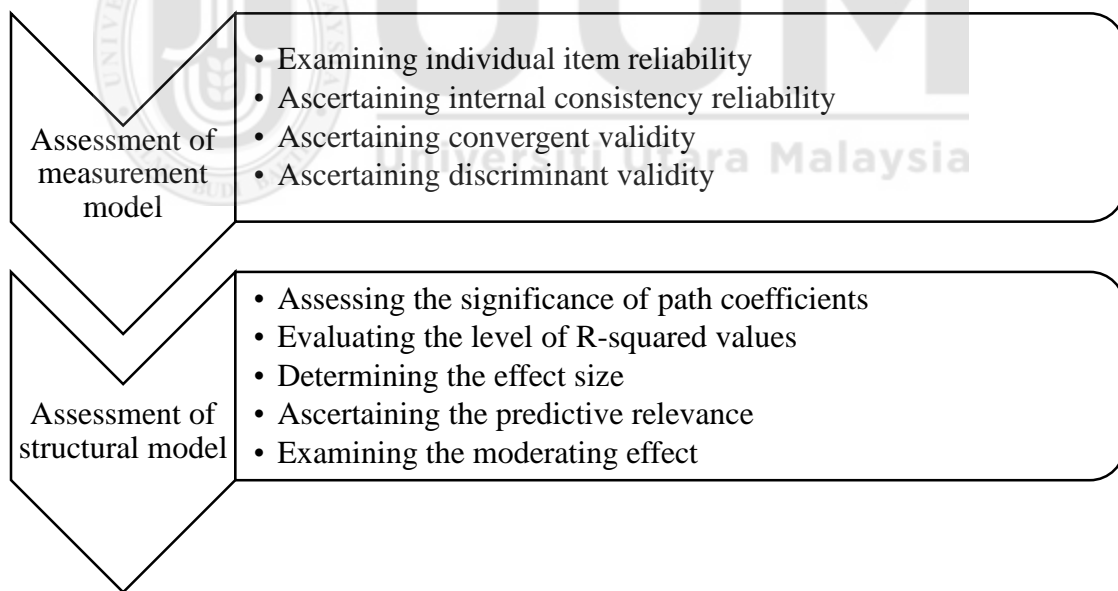


Figure 4.2  
*A Two-Step Process of PLS Path Model Assessment*  
Source: Henseler et al. (2009).

## 4.9 Measurement Model Assessment

Validation of the measurement model is required for assessing the structural model.

An analysis of the measurement model consists of determining internal consistency reliability, indicator reliability, convergent validity and discriminant validity (Hair et al., 2014; Henseler et al., 2009). The measurement model of this study is presented in

Figure 4.3.

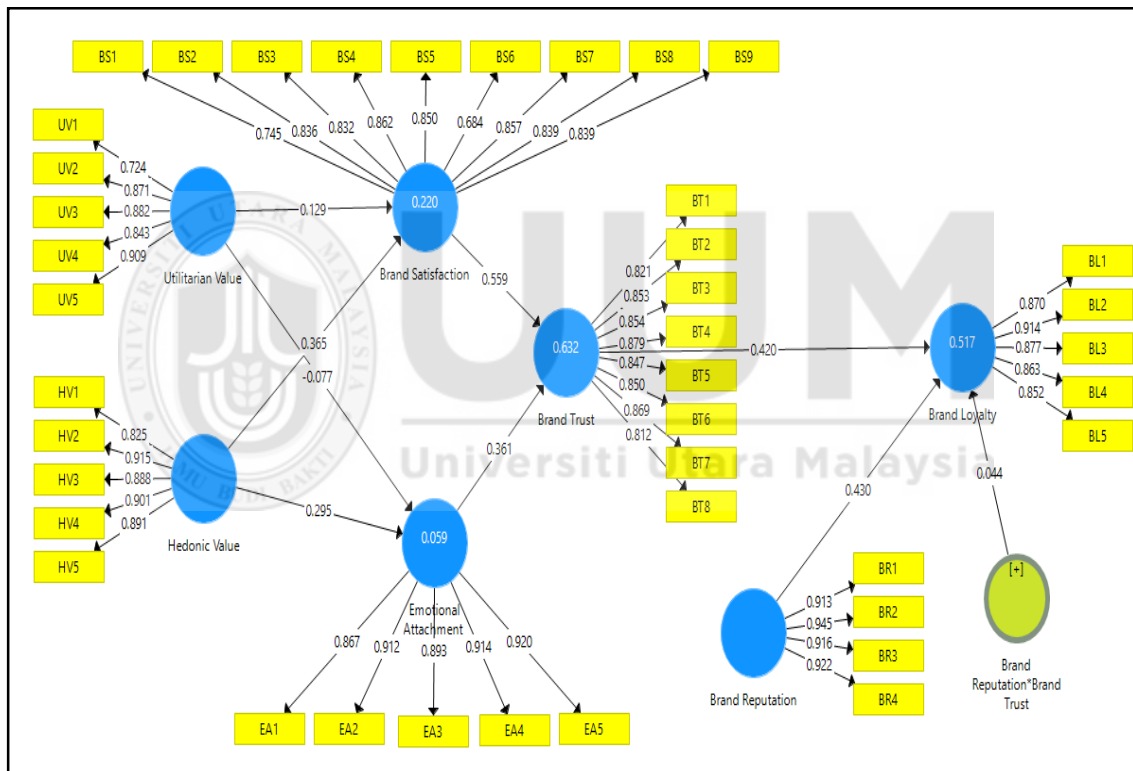


Figure 4.3

*Measurement model*

### 4.9.1 Individual item reliability

In the present study, outer loadings of each construct's measure were examined in order to determine the individual item reliability (Hair et al., 2014). According to rule

of thumb, the indicator's outer loading should be higher than 0.708 and indicators with outer loading from 0.40 to 0.70 should be considered for removal only if the deletion leads to an increase in composite reliability. In the present study, all the 41 indicators outer loadings are between 0.684 and 0.945. Hence, all the 41 items were retained as they had acceptable outer loading. The results of the outer loadings of each indicator are shown in Table 4.8 (refer Appendix M for PLS output).

#### **4.9.2 Internal consistency reliability**

Internal consistency reliability measures the reliability of the indicator in order to ensure that all indicators of a specific scale are measuring the same concept (Sun, Chou, Stacy, Unger & Gallaher, 2007). Basically, the two common criteria for internal consistency is Cronbach's alpha and composite reliability (Hair et al., 2014). Accordingly, Hair et al. (2014) highlights that Cronbach's Alpha estimates that all items have equal outer loadings on a construct yet in PLS, the items are prioritized according to its individual reliability. Furthermore, Hair et al. (2014) critic Cronbach Alpha due to its sensitivity to the number of items in the scale and may over or under estimates the scale reliability. According to the rule of thumb for evaluating reflective measurement models, Cronbach Alpha is considered as a conservative measure (Hair et al., 2014). Therefore, Hair et al. (2014) suggested to employ composite reliability to measure internal consistency because composite reliability is more reliable where it takes into account the actual contribution of individual indicators. Hence, composite reliability was chosen to determine the internal consistency reliability of measures adapted in the present study.

The value of composite reliability varies between 0 and 1 with a value above 0.708 is acceptable as per rule of thumb for evaluating reflective measurement models (Hair et al., 2014).

Table 4.8  
*Outer Loadings and Composite Reliability*

| <b>Latent Constructs</b> | <b>Indicators</b> | <b>Outer Loading</b> | <b>Composite Reliability</b> |
|--------------------------|-------------------|----------------------|------------------------------|
| Utilitarian Value        | UV1               | 0.724                | 0.927                        |
|                          | UV2               | 0.871                |                              |
|                          | UV3               | 0.882                |                              |
|                          | UV4               | 0.843                |                              |
|                          | UV5               | 0.909                |                              |
| Hedonic Value            | HV1               | 0.825                | 0.947                        |
|                          | HV2               | 0.915                |                              |
|                          | HV3               | 0.888                |                              |
|                          | HV4               | 0.901                |                              |
|                          | HV5               | 0.891                |                              |
| Brand Satisfaction       | BS1               | 0.745                | 0.948                        |
|                          | BS2               | 0.836                |                              |
|                          | BS3               | 0.832                |                              |
|                          | BS4               | 0.862                |                              |
|                          | BS5               | 0.850                |                              |
|                          | BS6               | 0.684                |                              |
|                          | BS7               | 0.857                |                              |
|                          | BS8               | 0.839                |                              |
|                          | BS9               | 0.839                |                              |
| Emotional Attachment     | EA1               | 0.867                | 0.956                        |
|                          | EA2               | 0.912                |                              |
|                          | EA3               | 0.893                |                              |
|                          | EA4               | 0.914                |                              |
|                          | EA5               | 0.920                |                              |

Table 4.8 (continued)

| <b>Latent Constructs</b> | <b>Indicators</b> | <b>Outer Loading</b> | <b>Composite Reliability</b> |
|--------------------------|-------------------|----------------------|------------------------------|
| Brand Trust              | BT1               | 0.821                | 0.954                        |
|                          | BT2               | 0.853                |                              |
|                          | BT3               | 0.854                |                              |
|                          | BT4               | 0.879                |                              |
|                          | BT5               | 0.847                |                              |
|                          | BT6               | 0.850                |                              |
|                          | BT7               | 0.869                |                              |
|                          | BT8               | 0.812                |                              |
| Brand Reputation         | BR1               | 0.913                | 0.959                        |
|                          | BR2               | 0.945                |                              |
|                          | BR3               | 0.916                |                              |
|                          | BR4               | 0.922                |                              |
| Brand Loyalty            | BL1               | 0.870                | 0.943                        |
|                          | BL2               | 0.914                |                              |
|                          | BL3               | 0.877                |                              |
|                          | BL4               | 0.863                |                              |
|                          | BL5               | 0.853                |                              |

Table 4.8 provides composite reliability of the latent constructs in this study (refer Appendix N for PLS output). The composite reliability of each variable were ranged from 0.927 to 0.959. This shows that all the constructs had acceptable reliability (internal consistency). This means that the internal consistency of the latent constructs was confirmed due to its high value (above 0.708) providing support for convergent validity (Hair et al., 2014).

### 4.9.3 Convergent Validity

As stated by Hair et al. (2014), a degree to which a measure relates positively with option measures of a similar construct. Convergent validity should be ensured when there are many indicators to measure a single construct and can be examined by Average Variance Extracted (AVE) as suggested by Fornell and Larcker (1981). AVE defined as the degree to which a dormant variable describes the indicators variance. Convergent validity requires that AVE should be greater than 0.5 (Hair et al., 2014; Fornell & Larcker, 1981). Table 4.9 indicates the value of AVE all latent constructs in the present study (refer Appendix N for PLS output).

Table 4.9  
*Average Variance Extracted (AVE)*

| <b>Latent Construct</b> | <b>Average Variance Extracted (AVE)</b> |
|-------------------------|---|
| Utilitarian value       | 0.719                                   |
| Hedonic Value           | 0.782                                   |
| Brand Satisfaction      | 0.669                                   |
| Emotional Attachment    | 0.812                                   |
| Brand Trust             | 0.720                                   |
| Brand Reputation        | 0.854                                   |
| Brand Loyalty           | 0.767                                   |

From the table above, it can be noticed that the AVE of all constructs ranged from 0.669 to 0.854. These values exceeded the recommended value (0.5) and thereby confirmed the convergent validity of the measurement model.

#### 4.9.4 Discriminant Validity

Discriminant validity referred as the degree to which a variable is genuinely different from other variables by empirical standards (Hair et al., 2014). The discriminant validity of the construct every construct was measured in various ways such as cross loadings (Chin, 1998) and Fornell and Larcker criterion (Fornell & Larcker, 1981).

Firstly, cross loading of the items was examined in this study. Particularly, an item's outer loading in the assigned variable must be larger than the loading of any other construct (Hair et al., 2014). The cross factor loading (Table 4.10) indicates that the discriminant validity of all the construct is good because the outer loading of each indicator on the related construct is higher than all of its loading on the other constructs (refer Appendix O for PLS output).

Table 4.10  
*Cross Loading*

|     | BL    | BR    | BS    | BT    | EA    | HV    | UV    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| BL1 | 0.870 | 0.571 | 0.465 | 0.587 | 0.637 | 0.205 | 0.185 |
| BL2 | 0.914 | 0.612 | 0.507 | 0.613 | 0.649 | 0.215 | 0.219 |
| BL3 | 0.877 | 0.481 | 0.405 | 0.549 | 0.596 | 0.186 | 0.167 |
| BL4 | 0.863 | 0.577 | 0.454 | 0.492 | 0.459 | 0.193 | 0.172 |
| BL5 | 0.852 | 0.499 | 0.378 | 0.494 | 0.486 | 0.189 | 0.174 |
| BR1 | 0.571 | 0.913 | 0.432 | 0.441 | 0.342 | 0.232 | 0.286 |
| BR2 | 0.573 | 0.945 | 0.528 | 0.529 | 0.428 | 0.296 | 0.320 |
| BR3 | 0.595 | 0.916 | 0.549 | 0.576 | 0.431 | 0.298 | 0.339 |
| BR4 | 0.585 | 0.922 | 0.475 | 0.486 | 0.399 | 0.207 | 0.298 |
| BS1 | 0.378 | 0.491 | 0.745 | 0.580 | 0.305 | 0.396 | 0.367 |
| BS2 | 0.327 | 0.398 | 0.836 | 0.573 | 0.290 | 0.432 | 0.407 |
| BS3 | 0.368 | 0.484 | 0.832 | 0.614 | 0.390 | 0.426 | 0.382 |
| BS4 | 0.396 | 0.467 | 0.862 | 0.592 | 0.322 | 0.383 | 0.350 |
| BS5 | 0.428 | 0.492 | 0.850 | 0.620 | 0.352 | 0.387 | 0.360 |
| BS6 | 0.466 | 0.315 | 0.684 | 0.511 | 0.573 | 0.285 | 0.191 |
| BS7 | 0.456 | 0.430 | 0.857 | 0.590 | 0.378 | 0.359 | 0.285 |

Table 4.10 (continued)

|     | BL    | BR    | BS    | BT    | EA    | HV    | UV    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| BS8 | 0.456 | 0.405 | 0.839 | 0.630 | 0.432 | 0.371 | 0.313 |
| BS9 | 0.479 | 0.455 | 0.839 | 0.641 | 0.457 | 0.336 | 0.274 |
| BT1 | 0.524 | 0.498 | 0.626 | 0.821 | 0.481 | 0.296 | 0.307 |
| BT2 | 0.568 | 0.542 | 0.658 | 0.853 | 0.488 | 0.260 | 0.268 |
| BT3 | 0.520 | 0.430 | 0.642 | 0.854 | 0.515 | 0.318 | 0.250 |
| BT4 | 0.538 | 0.470 | 0.633 | 0.879 | 0.537 | 0.307 | 0.248 |
| BT5 | 0.502 | 0.394 | 0.623 | 0.847 | 0.571 | 0.264 | 0.207 |
| BT6 | 0.553 | 0.460 | 0.582 | 0.850 | 0.554 | 0.245 | 0.222 |
| BT7 | 0.566 | 0.508 | 0.625 | 0.869 | 0.562 | 0.256 | 0.245 |
| BT8 | 0.485 | 0.428 | 0.551 | 0.812 | 0.522 | 0.232 | 0.207 |
| EA1 | 0.584 | 0.390 | 0.444 | 0.550 | 0.867 | 0.226 | 0.155 |
| EA2 | 0.597 | 0.411 | 0.456 | 0.547 | 0.912 | 0.202 | 0.129 |
| EA3 | 0.596 | 0.430 | 0.448 | 0.580 | 0.893 | 0.253 | 0.155 |
| EA4 | 0.579 | 0.379 | 0.399 | 0.555 | 0.914 | 0.222 | 0.132 |
| EA5 | 0.571 | 0.339 | 0.368 | 0.573 | 0.920 | 0.166 | 0.077 |
| HV1 | 0.219 | 0.223 | 0.341 | 0.216 | 0.177 | 0.825 | 0.680 |
| HV2 | 0.201 | 0.256 | 0.402 | 0.289 | 0.223 | 0.915 | 0.689 |
| HV3 | 0.163 | 0.260 | 0.475 | 0.347 | 0.202 | 0.888 | 0.645 |
| HV4 | 0.193 | 0.279 | 0.421 | 0.307 | 0.239 | 0.901 | 0.670 |
| HV5 | 0.236 | 0.212 | 0.382 | 0.242 | 0.206 | 0.891 | 0.634 |
| UV1 | 0.274 | 0.322 | 0.343 | 0.236 | 0.141 | 0.559 | 0.724 |
| UV2 | 0.113 | 0.235 | 0.329 | 0.210 | 0.108 | 0.641 | 0.871 |
| UV3 | 0.177 | 0.278 | 0.338 | 0.253 | 0.133 | 0.677 | 0.882 |
| UV4 | 0.101 | 0.204 | 0.274 | 0.234 | 0.079 | 0.606 | 0.843 |
| UV5 | 0.202 | 0.356 | 0.393 | 0.280 | 0.137 | 0.675 | 0.909 |

Secondly, Fornell – Larcker criterion were also tested in this study. This is achieved by comparing the square root of each construct's AVE with the other construct's correlation (Fornell – Larcker, 1981). The AVE should be greater than the squared correlation with any other construct. It can be seen in Table 4.11, the square root of each construct were all higher than correlation with other construct, suggesting adequate discriminant validity (refer Appendix P for PLS output).



Table 4.11

*Latent Variable Correlations and Square Root of AVE*

| <b>Latent Variable</b> | <b>BL</b>    | <b>BR</b>    | <b>BS</b>    | <b>BT</b>    | <b>EA</b>    | <b>HV</b>    | <b>UV</b>    |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| BL                     | <b>0.876</b> |              |              |              |              |              |              |
| BR                     | 0.629        | <b>0.924</b> |              |              |              |              |              |
| BS                     | 0.508        | 0.537        | <b>0.818</b> |              |              |              |              |
| BT                     | 0.628        | 0.550        | 0.729        | <b>0.848</b> |              |              |              |
| EA                     | 0.650        | 0.433        | 0.470        | 0.623        | <b>0.901</b> |              |              |
| HV                     | 0.226        | 0.280        | 0.461        | 0.321        | 0.238        | <b>0.884</b> |              |
| UV                     | 0.211        | 0.337        | 0.402        | 0.288        | 0.144        | 0.748        | <b>0.848</b> |

However, a recent study by Henseler, Ringle and Sarstedt (2015) criticized Fornell – Larcker (1981) standard for not being reliably identified the absence of discriminant validity in common research circumstances. Hence, Henseler et al. (2015) recommended an alternative approach to determine discriminant validity which is based on the multitrait-multimethod matrix, the hererotrait - monotrait (HTMT) ratio of correlations. The researchers also verify the superior performance of the HTMT approach by means of a Monte Carlo stimulation study. Therefore, this study has also verified the discriminant validity by using HTMT as suggested by Henseler et al., (2015). The result has been presented in Table 4.12 (refer Appendix Q for PLS outptut).

There are two ways to determine discriminant validity by using HTMT; 1) as a criterion or 2) as a statistical test. Regarding to the first way, there is a problem of discriminant validity when the value of HTMT is greater than HTMT.<sub>85</sub> value of 0.85 (Kline, 2011), or HTMT .<sub>90</sub> value of 0.90 (Gold, Malhotra & Segars, 2001; Teo,

Srivastava & Jiang, 2008). The second criteria are based on Henseler et al., (2015) where HTMT serves as the basis of a statistical discriminant validity test. This is known as  $HTMT_{inference}$ . According to Henseler et al. (2015) process of bootstrapping permits to construct confidence intervals for the  $HTMT_{inference}$  which is to test the null hypothesis ( $H_0 : HTMT \geq 1$ ) against the alternative hypothesis ( $H_1: HTMT < 1$ ). If a confidence interval consists of value one, then there is a problem of discriminant validity.

Of the three approach namely  $HTMT_{.85}$ ,  $HTMT_{.90}$  and  $HTMT_{inference}$ , the  $HTMT_{.85}$  appear to be the most conservative criterion and can pint to discriminant validity problems in research situations in which  $HTMT_{.90}$  and  $HTMT_{inference}$  indicate that discriminant validity has been established. Henseler et al. (2015) further pointed out that the strictest standards to determine discriminant validity requires  $HTMT_{.85}$ . Hence, following Henseler et al. (2015) suggestions,  $HTMT_{.85}$  approach was used to ascertain discriminant validity in this study. As presented in Table 4.12, all the value passed  $HTMT_{.85}$  (Kline, 2011). As such, the discriminant validity has been ascertained in this study.

Table 4.12  
*Heterotrait-Monotrait (HTMT)*

| <b>Latent Variable</b> | <b>BL</b> | <b>BR</b> | <b>BS</b> | <b>BT</b> | <b>EA</b> | <b>HV</b> | <b>UV</b> |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| BL                     | -         |           |           |           |           |           |           |
| BR                     | 0.671     | -         |           |           |           |           |           |
| BS                     | 0.546     | 0.569     | -         |           |           |           |           |
| BT                     | 0.668     | 0.582     | 0.774     | -         |           |           |           |
| EA                     | 0.692     | 0.459     | 0.506     | 0.660     | -         |           |           |
| HV                     | 0.246     | 0.297     | 0.488     | 0.338     | 0.252     | -         |           |
| UV                     | 0.223     | 0.357     | 0.428     | 0.310     | 0.153     | 0.818     | -         |

Overall, construct reliability and validity was established by confirming individual item reliability, internal consistency reliability, convergent validity and discriminant validity. After confirmation of constructs reliability and validity, next is to address structural model assessment, discussed in section below.

#### 4.10 Structural Model Assessment

Analysis of structural model consists of evaluating the implication of path coefficients, assessing the level of R-squared values, establishing the effect size, finding out the prescient importance and examining the moderating effect. In this study, bootstrapping procedure with 1000 samples and 327 cases were employed to assess the significance of path model relationships (Hair et al., 2014; Henseler et al., 2009). The full structural model of the current study is presented in Figure 4.4 (refer Appendix R for PLS output).

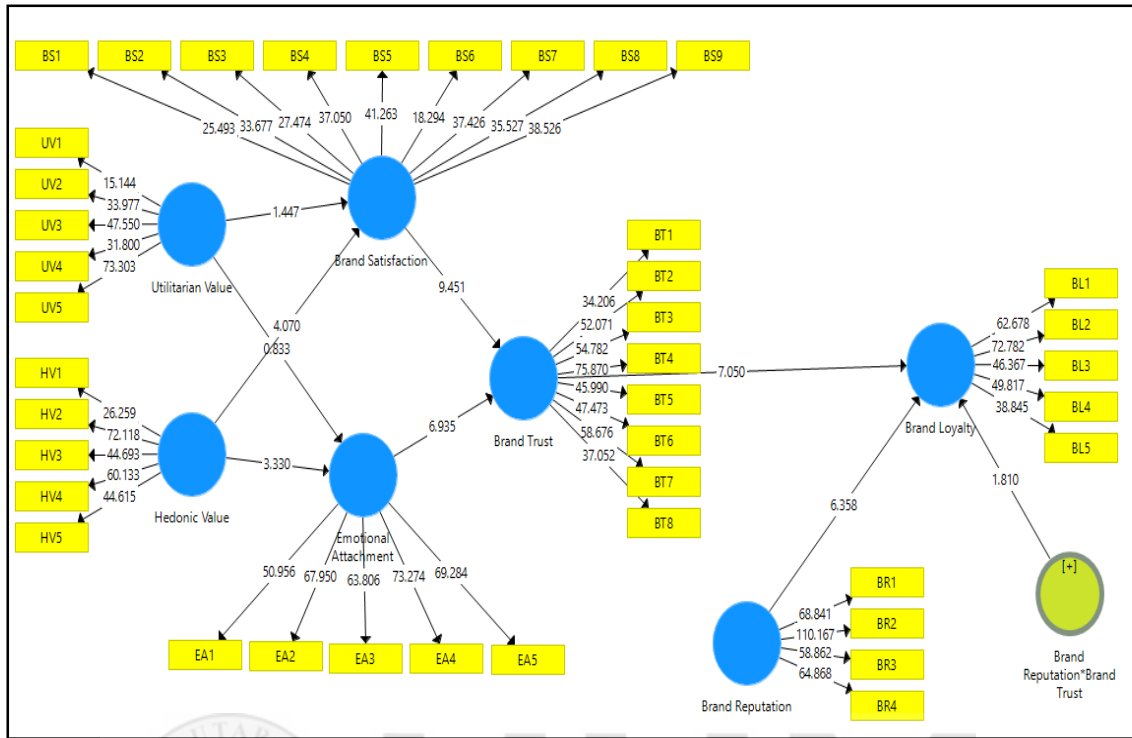


Figure 4.4  
*Structural model*

At the outset, hypothesis 1 predicted that utilitarian value has positive and significant effect on brand satisfaction. However, the result (Table 4.10, Figure 4.4) showed that utilitarian value has no influence on brand satisfaction ( $\beta=0.129$ ,  $t=1.447$ ,  $p>0.05$ ), which mean that hypothesis 1 is not supported. Hypothesis 2 predicted that the hedonic value has positive and significant relationship with brand satisfaction. The result also indicated that the hedonic value has a significant positive relationship with brand satisfaction ( $\beta=0.365$ ,  $t=4.070$ ,  $p<0.01$ ). Hence, hypothesis 2 was fully supported. Subsequently, hypothesis 3 predicted that utilitarian value has significant and positive relationship with emotional attachment. However, the result indicated that utilitarian value has no influence on emotional attachment ( $\beta=-0.077$ ,  $t=0.833$ ,  $p>0.05$ ), indicating that hypothesis 3 is not supported. Hypothesis 4, which predicted a

positive and significant relationship between hedonic value and emotional attachment was supported because the estimates from the PLS model were significant ( $\beta=0.295$ ,  $t=3.330$ ,  $p<0.01$ ).

Thereafter, hypothesis 5 predicted that brand satisfaction is positively and significantly associated with brand trust. As shown in table 4.10, a significant positive relationship between brand satisfaction and brand trust ( $\beta=0.559$ ,  $t=9.451$ ,  $p<0.01$ ) was found, indicating support for hypothesis 5. Regarding the relationship between emotional attachment and brand trust, the result indicated that emotional attachment had a significant positive relationship with brand trust ( $\beta=0.361$ ,  $t=6.935$ ,  $p<0.01$ ). Thus, hypothesis 6 was supported. With respect to hypothesis 7 on the relationship between brand trust and mobile phone brand loyalty, results showed a significant positive relationship between brand trust and mobile phone brand loyalty ( $\beta=0.42$ ,  $t=7.050$ ,  $p<0.01$ ). Hence, hypothesis 7 were also supported.

Table 4.13

*Result of full structural model with moderator*

| Hypothesis | Relation                                      | Path Coefficient | Standard Error | T-value  | Findings      |
|------------|---|------------------|----------------|----------|---------------|
| H1         | Utilitarian Value -> Brand Satisfaction       | 0.127            | 0.089          | 1.447    | Not Supported |
| H2         | Hedonic Value -> Brand satisfaction           | 0.365            | 0.090          | 4.070*** | Supported     |
| H3         | Utilitarian Value -> Emotional Attachment     | -0.077           | 0.092          | 0.833    | Not Supported |
| H4         | Hedonic Value -> Emotional Attachment         | 0.295            | 0.089          | 3.330*** | Supported     |
| H5         | Brand Satisfaction -> Brand Trust             | 0.559            | 0.059          | 9.451*** | Supported     |
| H6         | Emotional Attachment -> Brand Trust           | 0.361            | 0.052          | 6.935*** | Supported     |
| H7         | Brand Trust -> Brand Loyalty                  | 0.420            | 0.060          | 7.050*** | Supported     |
| H8         | Brand Trust * Brand Reputation->Brand Loyalty | 0.044            | 0.040          | 1.810*   | Supported     |

Note: \*p&lt;0.05, \*\*p&lt;0.01, \*\*\*p&lt;0.001

#### 4.10.1 Assessment of Variance Explained in the Endogenous Latent Variables.

Coefficient of determinants ( $R^2$  value) of the endogenous latent variables is also one of the important criterion for the structural model (Henseler et al., 2009; Hair et al., 2014). The coefficients represent the amount of variance in the endogenous constructs clarified by the greater part of the exogenous constructs connected to it (Hair et al., 2014). Further, Hair et al. (2014) tended to the trouble of providing rule of thumb for acceptable  $R^2$  values as it is dependent upon on the model multifaceted nature and the research discipline. However, Cohen (1988) indicated that  $R^2$  values of 0.26, 0.13 and 0.02 PLS-SEM is considered in as substantial, moderate and weak. In addition, Hair et al (2014) indicated that a model is called parsimonious when the model has acceptable  $R^2$  values with fewer exogenous latent variables. Table 4.14 shows the  $R$ -squared values of the four endogenous latent variables of the present study (refer Appendix S for PLS output).

Table 4.14  
*Variance Explained in the Endogenous Latent Variables*

| <b>Endogenous Latent Variable</b> | <b><math>R^2</math></b> |
|-----------------------------------|-------------------------|
| Brand Satisfaction                | 0.220                   |
| Emotional Attachment              | 0.059                   |
| Brand Trust                       | 0.632                   |
| Mobile phone brand loyalty        | 0.517                   |

As shown in Table 4.14, the  $R$ -squared values for the endogenous latent variables in this study is 0.220 for brand satisfaction, 0.059 for emotional attachment, 0.632 for brand trust and 0.517 for mobile phone brand loyalty. Following Cohen's (1988)

threshold value for R-squared, the R-squared value for the endogenous variables such as brand satisfaction is described as moderate, emotional attachment is considered as weak, brand trust and mobile phone brand loyalty were considered substantial. This indicates that the endogenous latent variables in this study showed acceptable levels of R-squared values. Furthermore, the endogenous latent variable is explained by only one and two exogenous latent variable where mobile phone brand loyalty (0.517) is explained by only brand trust, brand trust (0.632) is only explained by brand satisfaction and emotional attachment, brand satisfaction (0.22) and emotional attachment (0.056) is explained by only utilitarian value and hedonic value. Hence, the research model in this study is considered good at explaining the data because it has acceptable  $R^2$  values and the endogenous latent variables is explained by only fewer (one or two) exogenous latent variables.

#### **4.10.2 Effect Size**

R-squared values of endogenous latent variable reflect the model's strength. On the other hand, R-squared is also useful to estimate the substantiality of the impact of an exogenous latent variable on the endogenous latent variable which is assessed by running the model once by omitting the exogenous latent variable (generating R-squared excluded) and once by retaining the exogenous latent variable (generating R-squared included) (Hair et al., 2014). The change in R-squared obtained as such is used to estimate the effect size ( $f^2$ ). The effect size of each effect in the path can be evaluated by means of Cohen's (1988). According to Cohen (1988),  $f^2$  is assessed at 0.02 (small), 0.15 (medium) and 0.35 (large). The effect size of the latent variables is presented in Tables below (refer Appendix T for PLS output).



Table 4.15

*Effect Size on Mobile Phone Brand Loyalty (Endogenous)*

| <b>Exogenous</b> | <b>f<sup>2</sup></b> | <b>Effect Size</b> |
|------------------|----------------------|--------------------|
| Brand Trust      | 0.248                | Medium             |

Table 4.16

*Effect Size on Brand Trust (Endogenous)*

| <b>Exogenous</b>     | <b>f<sup>2</sup></b> | <b>Effect Size</b> |
|----------------------|----------------------|--------------------|
| Brand Satisfaction   | 0.663                | Large              |
| Emotional Attachment | 0.276                | Medium             |

Table 4.17

*Effect Size on Emotional Attachment (Endogenous)*

| <b>Exogenous</b>  | <b>f<sup>2</sup></b> | <b>Effect Size</b> |
|-------------------|----------------------|--------------------|
| Utilitarian Value | 0.003                | None               |
| Hedonic Value     | 0.041                | Small              |

Table 4.18

*Effect Size on Brand Satisfaction (Endogenous)*

| <b>Exogenous</b>  | <b>f<sup>2</sup></b> | <b>Effect Size</b> |
|-------------------|----------------------|--------------------|
| Utilitarian Value | 0.009                | None               |
| Hedonic Value     | 0.075                | Small              |

As shown in table 4.15, the endogenous latent variable ‘mobile phone brand loyalty’ is explained by one exogenous latent variable (brand trust), which is 0.248. Thereafter, the endogenous latent variable (brand trust) is explained by two exogenous latent variable, brand satisfaction and emotional attachment whose effect size is 0.663 and

0.276. In addition, the endogenous latent variable (emotional attachment) getting explained by two exogenous latent variable namely utilitarian value and hedonic value with effect size 0.003 and 0.041. And finally, the endogenous latent variable (brand satisfaction) is explained by two exogenous latent variable which is utilitarian value and hedonic value whose effect size is 0.009 and 0.075. Overall, these exogenous latent variables have none to large effect sizes on their endogenous latent variable. According to Ellis (2010), effect size tend to be small in Social Sciences. Therefore, a small effect size is still meaningful and important in this study.

#### **4.10.3 Predictive Relevance of the Model**

Using PLS for forecast purposes requires a measure of prescient ability. Therefore, the predictive relevance is also important for structural assessment. Stone-Geisser's  $Q^2$  value is the indicator of the model's predictive relevance and can be measured by blindfolding approach (Stone, 1974; Geisser, 1974). Predictive relevance,  $Q^2$  is a paradigm to assess how well the precluded data are evaluated by the model (Hair et al., 2014). In line with Hair et al (2014), the neglected data can be predicted in 2 modes: Cross validated communality ( $H^2$ ) or Cross validated redundancy ( $F^2$ ). Cross validated communality,  $H^2$  is where the missing values of the manifest data are estimated using the dormant variables scores and factor loadings. Cross validated redundancy,  $F^2$  is where the scores of the dormant endogenous factors are assessed by the scores of inactive exogenous factors and the weights in the measurement model. At that point these newly assessed scores of idle exogenous factors are utilized to appraise the missing patent factors scores.  $H^2$  and  $F^2$  the values should be greater than the threshold of 0 (Fornell & Cha, 1994; Henseler et al., 2009).

It should be noted that, according to Wold (1982), the sample reuse technique mainly blindfolding procedure to obtain the cross validated redundancy (instead of the cross validated communality) fits well for path modeling approach. In fact, Hair et al. (2014) suggested that cross validated redundancy fits the PLS approach perfectly, because this approach develops on the path model estimates of both measurement model and structural model of data prediction whereas cross validated communality measures the capacity of the path model by using only the measurement model. Hence, cross validated redundancy was focused in the present study to measure  $Q^2$  following recommendation of Wold (1982) and Hair et al. (2014). Table 4.19 shows that the cross validated redundancies for endogenous latent variable, which are 0.39, 0.144, 0.453 and 0.045 (refer Appendix U for PLS output).

Table 4.19  
*Predictive relevance of the model*

| <b>Construct</b>     | <b>Cross Validated Redundancy</b> |
|----------------------|-----------------------------------|
| Brand loyalty        | 0.390                             |
| Brand satisfaction   | 0.144                             |
| Brand trust          | 0.453                             |
| Emotional Attachment | 0.045                             |

These values represent adequate predictive capabilities of the model based on Henseler et al.'s (2009) and Fornell and Cha's (1994) criteria which necessitated these values to be greater than zero.

#### **4.10.4 Testing Moderating Effects**

The strength of the moderating effect of brand reputation on the relationship between brand trust and mobile phone brand loyalty was estimated by applying product indicator approach using PLS-SEM (Henseler & Chin, 2010; Chin, Marcolin & Newsted, 2003; Henseler & Fassott, 2010). The product indicator approach is considered appropriate in this study because this approach is used when the exogenous variable or the moderator variable has a reflective measurement model (Hair et al., 2014). In addition, Chin et al. (2003) indicated that product indicator approach is most promising.

To apply the product indicator approach in testing brand reputation moderating effect on the relationship amongst brand trust and mobile phone brand loyalty, product of each indicator of the exogenous latent factors with each indicator of the moderator variable were built as proposed by Kenny and Judd (1984). These product terms serve as an indicator of the interaction term in the structural. In addition, the strength of the moderating effects was assessed based on Cohen's (1988) guidelines as 0.02 (weak), 0.15 (moderate effect) and 0.35 (strong effect). Table 4.13 and Figure 4.5, demonstrates the estimates of the moderating effect of brand reputation on the relationship between brand trust and mobile phone brand loyalty.

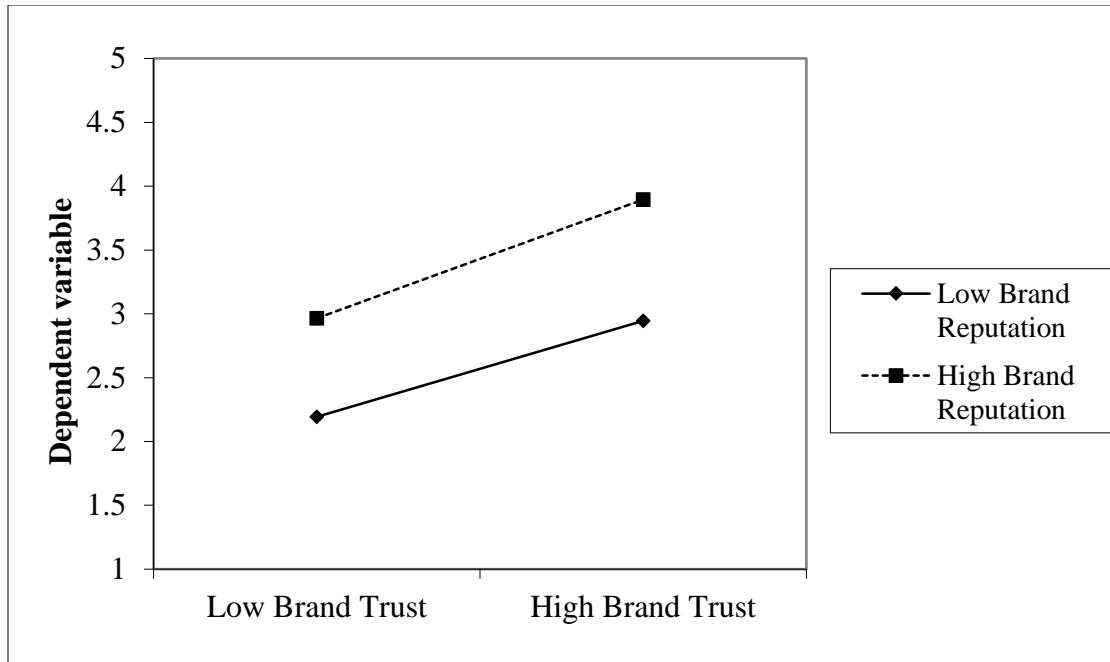


Figure 4.5  
*Moderating effect of brand reputation*

In hypothesis 8, it was stated that brand reputation moderates the relationship between brand trust and brand loyalty. Particularly, the relationship between brand trust and brand loyalty is stronger (i.e. more positive) for mobile phone with high brand reputation than it is for mobile phone with low brand reputation. As expected, the result shown that the interaction terms representing BT - brand trust x BR - brand reputation ( $\beta=0.044$ ;  $t= 1.810$ ,  $p<0.05$ ) was statistically significant. Hence, hypothesis 8 was fully supported.

#### 4.10.5 Determining the strength of the moderating effect.

The strength of the moderating effects of brand reputation on the relationship between brand trust and brand loyalty was assessed according to Cohen's (1988) guidelines. The strength of the moderating effect can be calculated by comparing R-squared value

of the main effect model with R-squared of the full model that integrate independent latent variable and moderating variable (Henseler & Fassott, 2010; Cohen, 1988).

Hence, the following can be used to determine the strength of the moderating effect.

$$\text{Effect size: } (f^2) = \frac{R^2 \text{ model with moderator} - R^2 \text{ model without moderator}}{1 - R^2 \text{ model with moderator}}$$

Since, SmartPLS 3.0 was employed to analyze the data in this study, the effect size of the moderating variable (brand reputation) was calculated by the PLS itself, which indicated 0.015. Following Henseler and Fassott (2010) and Cohen (1988) rule of thumb in assessing the strength of the moderating effects, the effect size of brand reputation (0.015) which is much related to 0.02, suggesting the moderating effect of brand reputation on the relationship between brand trust and brand loyalty was weak. However, according to Chin et al. (2003) a low effect size does not necessarily mean that the underlying moderating effect is insignificant. Chin et al. (2003) further explained that even a small interaction effect can be meaningful under extreme moderating condition. Hence, although the strength of the moderating effect is weak (0.02), but a small interaction effect is considerable significant in this study.

#### **4.11 Summary of findings**

Summarization of all the results, including main and moderating effects in previous sections is presented Table 4.20.

Table 4.20

*Summary of hypotheses testing*

| <b>Hypothesis</b> | <b>Statement</b>  | <b>Findings</b> |
|-------------------|---|-----------------|
| H1                | Utilitarian value has significant positive relationship with brand satisfaction.                                | Not supported   |
| H2                | Hedonic value has significant positive relationship with brand satisfaction.                                    | Supported       |
| H3                | Utilitarian value has significant positive relationship with emotional attachment.                              | Not supported   |
| H4                | Hedonic value has significant positive relationship with emotional attachment.                                  | Supported       |
| H5                | Brand satisfaction has significant positive relationship with brand trust.                                      | Supported       |
| H6                | Emotional attachment has significant positive relationship with brand trust.                                    | Supported       |
| H7                | Brand trust has significant positive relationship with brand loyalty.   | Supported       |
| H8                | The positive relationship between brand trust and brand loyalty will be stronger when brand reputation is high. | Supported       |

**4.12 Summary of the chapter.**

In this chapter, the significance of the path coefficients and the major findings whether the hypothesis is supported or not were presented. The path coefficients revealed a significant relationship between 1) hedonic value and brand satisfaction, 2) hedonic value and emotional attachment, 3) brand satisfaction and brand trust, 4) emotional attachment and brand trust and 5) brand trust and brand loyalty. However, path coefficients revealed insignificant relationship between 1) utilitarian value and brand satisfaction and 2) utilitarian value and emotional attachment. Most importantly, the

path coefficient for the moderating effects of brand reputation on the relationship between brand trust and brand loyalty revealed a significant relationship. The findings of this will be discussed more briefly in the next chapter (Chapter 5) followed by theoretical implications and, practical implications, limitation of the research and future directions and conclusion.





## **CHAPTER 5**

### **DISCUSSION**

#### **5.1 Introduction**

This chapter offers a discussion of the findings of this study presented in the previous chapter. This discussion will relate the findings of study with the theoretical perspectives and related prior studies. Subsequently, the chapter continues with the recapitulation of the study's findings. The chapter discusses the support and reasons for achieving those results in relation to underpinning theory and related past studies. Thereafter, the theoretical and practical implications of the study have been discussed, followed by limitation of the study and directions for further research. Finally, the chapter ends with the conclusion of the study.

#### **5.2 Recapitulation of the Study's Findings**

The main objective of this study is to investigate the sequential linkage of utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and how these variables impact brand loyalty particularly in the Malaysia mobile phone market. Additionally, the study has examined the influence of brand reputation, a moderating variable on the link between brand trust and mobile phone brand loyalty. Overall, this study has succeeded in advancing current understanding of customers' brand loyalty formation in the mobile phone context by providing answers to the following research questions.

1. Do utilitarian value and hedonic value influence brand satisfaction?
2. Do utilitarian value and hedonic value influence emotional attachment?
3. Do brand satisfaction and emotional attachment influence brand trust?
4. Does brand trust influence brand loyalty?
5. Does brand reputation moderates the relationship between brand trust and brand loyalty?

The findings of this study indicate that out of eight hypotheses, six were supported. The result of PLS path model depict that utilitarian value is insignificantly associated with brand satisfaction whereas hedonic value has significant and positive relationship with brand satisfaction. Utilitarian value has been found to be insignificant and negatively related to emotional attachment, whereas hedonic value has significantly and positively influenced emotional attachment. Brand satisfaction and emotional attachment have been found to be significantly and positively related to brand trust. Findings have further revealed that brand trust was significantly and positively related to mobile phone brand loyalty. With respect to brand reputation as a moderator of the relationship between brand trust and mobile phone brand loyalty, results have confirmed that brand reputation moderates the relationship between brand trust and mobile phone brand loyalty.

### **5.3 Discussion**

This section discusses the support and the reasons for achieving those results in Malaysian mobile phone context. The subheadings of this section are structured according to the research questions.

### **5.3.1 The Relationship of Utilitarian Value and Hedonic Value with Brand Satisfaction**

The first research question is whether utilitarian value and hedonic value have a significant positive relationship with brand satisfaction. In line with this research question, the first objective of this study has been to investigate the relationship of utilitarian value and hedonic value with brand satisfaction.

#### **5.3.1.1. The Relationship between Utilitarian Value and Brand Satisfaction**

In the proposed research model, it is hypothesized that utilitarian value has a significant positive influence on brand satisfaction. Therefore, Hypothesis 1 was postulated to investigate the relationship between utilitarian value and brand satisfaction. The result of the present study shows that the relationship between utilitarian value and brand satisfaction in Malaysian mobile phone context was insignificant. Thus, the empirical finding does not support H1 in the current study.

This finding indicates that utilitarian value has insignificant effect on brand satisfaction, which suggests that effective, functional, practical, necessary and performance perceptions of usefulness are not needed to create brand satisfaction in mobile phone context. This result can be justified by three reasons. Firstly, according to the law of diminishing marginal utility, as a customer increases the consumption of a product, the marginal utility from each additional unit of the product decreases. This is because there is a certain threshold of utility and the customer will no longer receive the same additional utility value from consumption once the threshold is crossed (Lam & Shankar, 2014). In other words, additional utility will decrease as individual

increases the quantity consumed. According to Goldman (2011), the average lifespan for a mobile phone is about 6 to 9 months, indicating that customers are likely to replace their phones regularly. Hence utilitarian aspects may not be communicated when the mobile phone is purchased regularly thereby utilitarian aspects may not have a significant impact on customers' satisfaction toward their mobile phone brand. Therefore, this could be one possible explanation for the absence of support for the influence of utilitarian value on brand satisfaction.

There have been many research studies on brand loyalty across various contexts such as mobile app (Hsu & Lin, 2016; Xu et al., 2015), location based social networking service (Yu et al., 2013), social virtual world (Zhou et al., 2014), shopping (Lo & Qu, 2015; Sirakaya-Turk et al., 2015) and online retail (Yoo & Park., 2016). These studies suggest that utilitarian value has a significant relationship with satisfaction; however, utilitarian value appears to be a weaker predictor than hedonic value in predicting satisfaction. Utilitarian value does not necessarily build customer satisfaction because the findings may suggest that satisfaction outcomes are rooted more in the phenomenological experiences (hedonic aspects) which govern everyday life (Jones, 2006). Hence this could be another plausible explanation for the insignificant effect of utilitarian value on brand satisfaction in this study.

Moreover, the impact of values on satisfaction differs across users' gender (Zhou et al., 2014). Both female and male users have different need structures in using mobile phone. Therefore, same set of perceived values may generate different reaction by male and female users and thus variedly determine their level of satisfaction. Generally gender differences exist in terms of how much a certain perceived value

affects satisfaction. This implies that although mobile phones come with a number of hedonic features (Sheng & Teo, 2012), these features may not be equally valued by male and female users. According to Manolica, Roman and Birsan (2012), women place more importance on the appealing design of the mobile phone and that it must offer more emotions. This indicates that female users' satisfaction is primarily predicted by hedonic value. In this study, majority of the respondents, about 59.3% were females. Therefore, the respondents' profile could be one of the reasons for insignificant effect of utilitarian value on brand satisfaction.

#### **5.3.1.2 The Relationship between Hedonic Value and Brand Satisfaction**

In the same vein, present study predicts that hedonic value is positively related to brand satisfaction. (Hypothesis 2). As expected, empirical evidence from this study shows that there is a significant positive relationship between hedonic value and brand satisfaction in Malaysian mobile phone context. Thus, hypothesis 2 is supported. Consistent with Oliver's four stage loyalty, this result suggests that affective outcomes such as brand satisfaction are significantly influenced by cognitive factors such as hedonic value. Accordingly, this finding is also consistent with a number of past studies that have obtained similar results in various contexts. These research contexts include retailing (Jones et al., 2006; Lo & Qu, 2015), mall (Kesari & Atulkari, 2016), destination (Sirakaya-Turk et al., 2015), e-mass customization (Yoo & Park, 2016), location based social networking service (Yu et al., 2013), internet shopping (Kim et al., 2013), mobile app (Hsu & Lin, 2016; Xu et al., 2015), car (Chitturi et al., 2008),

airlines (Kim, 2015), notebook and smartphone (Ha & Park, 2013) and fast casual restaurant (Nejati & Parakhodi Moghaddam, 2013).

While mobile phone manufacturers have long focused on hedonic characteristics (Helfenstein, 2012; Sheng & Teo, 2012), the results of this study also suggest that affective outcome variable such as brand satisfaction is influenced by hedonic aspects of mobile phone. The study by Arruda-Filho and Lennon (2011) has pointed out that many customers are inclined to use mobile phone for satisfying their hedonic needs such as fun, enjoyment, thrill and excitement. The view that mobile phone users give greater importance to perceived hedonic value from using a mobile phone is also supported in the Asian Telecom context in Japan, Korea and China mobile markets (Lennon, 2010). When hedonic needs are fulfilled from using a mobile phone, customers become more satisfied with that brand. Thus, fulfilling these hedonic needs by using a mobile phone leads to satisfaction with the mobile phone brand. This clearly shows that hedonic value such as fun, excitement, delightfulness, thrill and joy lead to brand satisfaction.

Furthermore, Gardner (1985) has stated that people desire to maintain consistency between their moods and evaluative judgment like satisfaction and thus satisfaction is a way to interpret and express their felt emotions (Dawson, Bloch & Ridgway, 1990). Use of mobile phone gives emotional experience such as hedonic value to the users and satisfaction process is closely tied with user's emotion. Thus, this could be another reason that may explain the influence of hedonic value on brand satisfaction among mobile phone users in Malaysia.

### **5.3.2 The Relationship between Utilitarian Value and Hedonic Value with Emotional Attachment**

The second research question is whether utilitarian value and hedonic value have a significant positive relationship with emotional attachment. In line with this research question, the second objective of this study has been to examine the relationship of utilitarian value and hedonic value with emotional attachment.

#### **5.3.2.1 The Relationship between Utilitarian Value and Emotional Attachment**

To answer the second research question, it is hypothesized that utilitarian value has a significant positive relationship with emotional attachment (Hypothesis 3). However, the results of this study reveal that utilitarian value of a mobile phone does not significantly influence customers' emotional attachment towards the mobile phone brand. Lack of influence of utilitarian value on customers' emotional attachment towards a mobile phone brand indicates that usefulness, practicality, functionality and necessity of the mobile phone have little importance in making the users become emotionally attached to mobile phone brand. This is because, in the mobile phone industry, an overwhelming trend of the new millennium has been to emphasize hedonic qualities of mobile phones beyond their utilitarian features (Helfenstein, 2012). Sheng and Teo (2012) have also pointed out that hedonic attributes of mobile phone (e.g. video recorder, camera, MP3 player, etc.) that offer pleasure appear to be more effective than utilitarian attributes (GPS Maps, Calendar/day planners, calculators). In fact, study by Arrudo-Filho and Lennon (2011) on consumption behaviour of iPhone users has indicated that features beyond just voice and data access

are seen as desirable. It is because experiential outcomes generated by the haptic interface and the experiential features such as MP3 player and camera capabilities are central themes among mobile phone users. Hence mobile phone devices are perceived as companions delivering personalised experiences instead of tools and this can make the customer become emotionally attached to their mobile phone brand. This is summed up here as a possible explanation of the insignificant effect of utilitarian value on customers' emotional attachment towards their mobile phone brand. It is because customers attach greater importance to perceived hedonic value which offers them emotional experiences such as fun, thrill, excitement and enjoyment as compared to utilitarian value. Similarly, previous studies (e.g. Fiore et al., 2005; Babin, Lee, Kim & Griffin, 2005) have highlighted that affective emotions are determined by the hedonic value.

In addition, study by Nejati and Parakhodi Moghaddam (2012) has found that appeal and emotional aspect (hedonic value) of a product or service is more important than its rational aspect (utilitarian value) for young consumers. This study has further explained that this might be rooted in the characteristics of the younger generation who seek fun, excitement, enjoyment and thrill rather than mere usefulness. According to Thomson et al. (2005), a customer builds an emotional attachment to a brand when the brand becomes embedded inextricably within their psyche or resonates with their self-concept. In this study, majority of the respondents were in the age group of 21-30, indicating that most of the respondents are young. Hence younger generation is less likely to use mobile phone for only utilitarian purposes and thus utilitarian values do not make them become emotionally attached to their mobile phone brand. Utilitarian



value such as practicality, functionality and usefulness of the mobile phone does not associate well with the characteristics of younger generation who are mere pleasure oriented and are mainly motivated by the desire for fun. Therefore, this could be another possible reason for the insignificant effect of utilitarian value on customers' emotional attachment towards their mobile phone brand.

Furthermore, prior studies by Katz and Sugiyama (2006) in the Japanese mobile phone market and by Lennon (2010) in the Korean, Japanese and Chinese markets conclude that usage by devoted mobile phone users in Asian nations is not influenced by utilitarianism. In present study, utilitarian value does not influence emotional attachment because Malaysians are less likely to perceive utilitarian value from using a mobile phone as has been the case with other users in Asian nations. In addition, utilitarian value appears to be less important motivator for customers to be affectively committed to a product or service (Zhou, Jin, Fang & Vogel, 2015). Therefore, this could be another reason that may explain the insignificant relationship between utilitarian value and emotional attachment.

#### **5.3.2.2 The Relationship between Hedonic Value and Emotional Attachment**

It is hypothesized that hedonic value has a significant positive relationship with emotional attachment (Hypothesis 4). A significant positive relationship between hedonic value and emotional attachment has been reported in the present study. This supports the Oliver's (1999) notion that affective loyalty (emotional attachment) is a function of cognition (hedonic value). Although there have been seldom any previous empirical studies specifically on the relationship between hedonic value and emotional

attachment in mobile phone brands, several studies in other contexts have reported that hedonic value has a significant relationship with affective commitment of online hotel booking (Bilgihan & Bujisic, 2015), with place attachment of shopping malls (Allard et al., 2009), emotional pleasure in online retailer's website (Fiore et al., 2005) and emotional links in shopping context (Butz & Goostein, 1996). This clearly depicts that hedonic value exhibits a strong relationship with affective emotions which is consistent with findings of this study studies.

Nowadays, mobile phones are designed with hedonic features like high sound quality, MP3 players, high resolution camera, HD display touch screen and generous memory. These features allow the user to download Java games, songs and ringtones. 4G supportive technology allows the user to do video conferencing and video calling and the list goes on ("Dev,"n.d.). Mobile phones with these breakthrough hedonic features have become hit among all classes of users allowing them to enjoy a tech savvy lifestyle. Effectiveness of hedonic elements seems to justify recent trends towards entertainment and thus creation of more pleasurable experiences. According to Chitturi et al. (2008), mobile phones that offer hedonic value are better at fulfilling emotional goals. Hence mobile phone users' hedonic value such as fun, excitement, thrill, delightfulness and enjoyment incarnated by hedonic features of mobile phone can trigger mobile phone brand attachment. In other words, the more hedonic value a customer receives from using a particular brand mobile phone, the more he or she will feel emotionally attached to that brand mobile phone. Therefore, it is reasonable to conclude that hedonic features of mobile phone evoke hedonic value and hedonic

value serves as a basis for Malaysian customers' emotional attachment to a mobile phone brand indicating hypothesis 4 is supported.

### **5.3.3 The Relationship of Brand Satisfaction and Emotional Attachment with Brand Trust**

The third research question is whether brand satisfaction and emotional attachment have significant positive relationship with brand trust. In line with this research question, the third objective of this study has been to ascertain the relationship of utilitarian value and hedonic value with brand trust.

#### **5.3.3.1 The Relationship between Brand Satisfaction and Brand Trust**

Brand satisfaction in this study is defined as customers' overall evaluation of whether a particular brand of mobile phone meets their performance expectations or fulfills usage needs (Oliver, 1999). Brand satisfaction is an evaluation rendering that the consumption experience of a particular brand of mobile phone was at least as good as it was expected to be. Thus, the current study infers from the empirical evidence that brand satisfaction is likely to lead to brand trust. In other words, present study confirms that brand satisfaction has a significant positive influence on brand trust (Hypothesis 5).

Satisfaction with the brand consumption generates a positive attitude toward the brand, which in turn reinforces customers' trust towards the brand (Nam et al., 2011). Brand trust, in this vein, expresses belief of the customers that experience of brand satisfaction will continue to be fulfilled by the brand (Zhou, Zhang, Su & Zhou, 2012).

This could be due to the fact that customers are likely to trust a brand when they are satisfied with the brand in the first place. In fact, studies by Miquel–Romero et al. (2014) and Lee and Back (2008) have indicated that it is undeniable that a certain amount of positive consumption experiences with a particular brand (satisfaction) will lead to the development of customer's trust towards that brand. Specifically, the overall satisfaction induces trust by contributing to brand confidence in fulfilling its commercial promises and protecting customer's welfare and interest (Ganesan, 1994). Therefore, the findings of this study also seem to suggest that when mobile phone users are satisfied with a particular brand of mobile phone, they shape the confidence that the mobile phone will deliver what is promised and see much less perceived risk associated with that brand of mobile phone.

This result is also consistent with prior studies in various research contexts such as retailing (Chinomona et al., 2013; Glynn et al., 2012), private label convenience goods ( Miquel – Romero et al., 2014), conference (Lee & Back, 2008), tourism destination (Chen & Phou, 2013), non-durable consumer goods ( Chinomona, 2013), magazine website (Horppu et al., 2008) and mobile phone setting as well (Azize et al., 2012; Lam & Shankar, 2014; Lee et al., 2015; Ercis et al., 2012). It can be concluded that the degree of brand trust of mobile phones is consequence of the capacity of a business to satisfy the needs of its customers.

#### **5.3.3.2 The Relationship between Emotional Attachment and Brand Trust**

In present study, it is hypothesized that emotional attachment has significant positive relationship with brand trust (Hypothesis 6). Empirical evidence from this study shows

that the effect of emotional attachment on brand trust in Malaysian mobile phone context is significant and positive. Thus hypothesis 6 is supported. This finding of the association between emotional attachment and brand trust appears to be supported by other studies in various research contexts such as car battery market (Belaid & Temessek Behi, 2011), coffee brand (Jahn et al., 2012) and Volkswagen Golf GTI (Matzlet et al., 2011). Accordingly, it can be concluded that when brands induce feelings of emotional attachment in customers' minds, brands are more likely to prompt customers' desire to trust and maintain the relationship.

According to Sarkar et al. (2016), brand trust represents perceptions that a brand is highly trustworthy and results from the maintenance of deep attachment with the brand. Palmatier et al. (2009) have further explained that positive emotional responses towards the exchange partner improve perceptions of the partners' trustworthiness. It is because people usually decide whether they can trust someone or not by examining their feelings towards that person. Moreover, Williams (2004) has pointed out that state of emotional attachment influences how people evaluate trustworthiness of others; how inclined they are to cooperate with others and how motivated they are to display trust in others. It is due to the fact that people often use feelings as informed data when making judgements about others. Likewise, Belaid and Temessek Behi (2011) have indicated that being attached to a brand leads to a high desire to believe that the brand does not intend to break promises or to take advantage of the customers' vulnerability. Hence it can be concluded in this study that the feeling of being emotionally attached towards a mobile phone brand reinforces the feeling of security

that the brand will fulfil its promises and that the brand is interested in the customer's welfare.

Although emotional attachment has a significant positive influence on brand trust, however, its effect size is 0.276 which is much smaller than the effect size of brand satisfaction on brand trust, 0.663. The possible reason for this result may be due to respondents' age. According to Jahn et al. (2012), the impact of emotional attachment and relational constructs on brand trust is stronger for the older customers. In this study, the majority of the respondents were young i.e. in the age group of 21-30 years old, which is 44.6% and only 5.8% of the respondents were in the age bracket of 51-60 years old. Thus, the effect size of emotional attachment on brand trust was small because majority of the respondents were young.

#### **5.3.4 The Relationship between Brand Trust and Brand Loyalty**

The fourth research question is whether brand trust has a significant positive relationship with brand loyalty. In line with this research question, the fourth research question has been to determine the relationship between brand trust and brand loyalty. The results of this study depict that brand trust has a significant and positive effect on brand loyalty. This study reveals that the relationship between brand trust and mobile phone brand loyalty (H7) is supported. The results of this study are similar to previous studies by Mosavi and Kenarehfar (2013), Matzler et al. (2008), Lee et al. (2015) and Lam and Shankar (2014) in the mobile phone context. This evidence indicates that brand trust plays an important role in determining mobile phone brand loyalty. A

mobile phone user is very likely to remain loyal if he or she can trust the mobile phone's manufacturer.

The role of trust may vary depending on the level of uncertainty presented within the context. According to Parasuraman and Colby (2001), customers often perceive some degree of uncertainty in the performance of technological products. In mobile phone context, mobile phone is used for storing important files, organizing users' tasks such as maintaining users' schedule and keeping the user up to date about upcoming events. Mobile phone is also used for linking to internet for email and web access or connecting to computer network remotely to access relevant data. It also enables the user to quickly access their bank and make immediate online payment. It moreover enables user to access latest business news and stay updated on social networks. As a business tool, mobile phone enables integration with business software which allows the user to stay connected with business activities, receive up-to-date report about financial and business operations and view business presentation and videos. This clearly shows that mobile phone needs to work effectively and efficiently at all times, store important information and transmit the right information. Thus, uncertainty in mobile phone performance can be high. According to Limbu, Wolf and Lunsford (2012), trust in a brand allows customers to overcome perception of risk and reduces customers' uncertainty and thereby strongly affects customers' behavior. Therefore, the impact of brand trust on loyalty becomes exclusively relevant and important in the mobile phone context as has been revealed in this study.

Brand trust is based on the perception that the company represented by the brand has consistently kept its promises of value to customers via the product is developed, produced, sold, serviced, advertised and even in bad times when some kind of brand crisis arises (Delgado-Ballester et al., 2005). In addition, Sahin et al. (2011) has indicated that trust in the purchased brand may be viewed as leverage of its credibility, which in turn may reinforce customers' repeat purchase behavior. Furthermore, Matzler et al. (2008) has pointed out that the importance of brand trust to brand loyalty in the context of mobile phone also becomes obvious when considering the large number of mobile phone models and brands. In this situation, mobile phone users may face difficulty in discerning quality differences in various mobile phone brands and thus may fall back to brand trust in making purchase decision. According to a report on mobile phones in Malaysia by Euromonitor International (2016), many of world's top mobile phone brand owners such as Apple, Samsung, Nokia constantly release new models in the constant battle for customer attention. Therefore, it can be concluded that customers' trust upon the mobile phone brand owners influences customers' loyalty to their mobile phones than switching to the alternatives as has been seen in this study.

Moreover, Matzler, Krauter and Bidmon (2006) has indicated that brand trust is a stronger predictor of loyalty for women because a woman's behavior will be more considerate and less automatic than that of a man. In this study, majority of the respondents are female i.e. 59.3%. It can be concluded that female mobile phone users will only repeat their purchase of a particular brand mobile phone when the brand is



trustworthy. Therefore, this could be one of the reasons for the result of this study that brand trust positively and significantly influences brand loyalty of mobile phone.

### **5.3.5 Moderating Effect of Brand Reputation on the Relationship between Brand Trust and Brand Loyalty**

The fifth research question is whether relationship between brand trust and brand loyalty will be stronger when brand reputation is high. In line with this research question, fifth objective of this study has been to assess the moderating effect of brand reputation on the relationship between brand trust and brand loyalty. In this study, results regarding the moderating effect of brand reputation appear to be congruent with Oliver's four stage loyalty theory (Oliver, 1999). This finding is consistent with the view that an ultimate loyalty state (action loyalty) can be achieved when the product or brand have the capacity to be embedded in a social network. In other words, if a brand's customer can be networked at least perceptually, they can feel that they are part of a community, thereby they become determined defenders of the brand (Oliver, 1999). Basically, when customer's aggregate perception on the salient characteristics of a brand (brand reputation) is available, so does the potential for brand loyalty. In this study, brand reputation strengthens the influence of brand trust on brand loyalty. There is a stronger relationship between brand trust and brand loyalty for brands with high reputation as opposed to brands with low reputation and thus supporting hypothesis 8. This suggests that customer's trust towards their mobile phone brand is inherently valuable, yet the reputation of the mobile phone brand determines the strength of brand trust's effect on mobile phone brand loyalty.

In the context of mobile phone market, Epstein (2015) highlights that Samsung keeps its promises (trustable) yet it has less brand loyal customers compare to Apple iPhone. According to this study, a recent survey of 6000 customers by RBC Capital Markets has demonstrated that Apple has more loyal customers compared to Samsung where 83.4% of Apple phone users plan to continue to patronize Apple for the foreseeable future and only 64% of Samsung users plan to buy another Samsung. According to Michael (2014) a survey by SIMOnlyContracts.co.uk among 2000 Apple iPhone owners has found that 60% of the respondents admitted having “blind loyalty” to Apple brand where they don’t even consider other options when buying a new phone and simply ensure that it has the Apple logo on it. Indeed, Negahban and Chang (2014) have stated that iPhone by Apple Company enjoys a large growth in sales compared to other brands of smartphones such as HTC and Samsung because iPhone has established a higher reputation. It is crystal clear that although Samsung is trustworthy, however, it has fewer brand loyal customers when compared against Apple. It is because Apple has established a higher reputation among customers. Therefore, customers’ trust towards their mobile phone brand will enhance their repeat purchasing behavior when the brand earns good reputation.

#### **5.4 Theoretical Implications**

The research framework of this study was based on Oliver’s four stage loyalty model (Oliver, 1999). This study provides a mobile phone brand loyalty research model by integrating the major constituents of cognition (value based on utilitarian and hedonic features of product), affect (brand satisfaction and emotional attachment), conation (brand trust), action (brand loyalty) and by incorporating brand reputation as

moderator. This has enabled more refined understanding of mobile phone customers' loyalty formation process. The contribution of this study, therefore, lies in combining these variables and exploration of their effects exerted in a single model. Based on the research findings and discussion, the current study contributes to Oliver's four stage loyalty theory regarding linkage of utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and mobile phone brand loyalty in a consecutive manner along with moderating role of brand reputation.

#### **5.4.1 Additional Empirical Evidence about the Network of Relationships among Study Variables**

This study has provided theoretical implication by giving additional empirical evidence on the relationship among utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust; and mobile phone brand loyalty sequentially.

Firstly, the association between utilitarian value and hedonic value with brand satisfaction remains unclear in context of mobile phone, especially among majority users of mobile phone across various nations (Ha & Park, 2013). Hence Ha and Park (2013) pointed out that there is limitation regarding the generalisation of this relationship. As far as studies are concerned about the relationship between brand value (utilitarian and hedonic) and brand satisfaction in mobile phone setting, yet studies on this relationship are rare to find in literature. Therefore, this study contributes to the body of knowledge by providing empirical evidence on the relationship between utilitarian value and hedonic value with brand satisfaction among mobile phone users in Malaysia. Centred on the research outcome, it is confirmed that

Malaysian customers' satisfaction towards mobile phone brand is primarily influenced by hedonic value compared to utilitarian value. Based on this, it can be said that this study claims that hedonic value appears to be better predictor of brand satisfaction in mobile phone setting.

Secondly, according to Oliver's four stage loyalty model, cognitive value (based on utilitarian and hedonic) influences affective elements. Most previous studies have looked into the effect of value with affective commitment in varied contexts such online hotel booking (Bilgihan & Bujisic, 2015), with place attachment of shopping malls (Allurd et al., 2009), emotional pleasure in online retailer's website (Fiore et al., 2005) and emotional links in shopping context (Butz and Goostein, 1996). However, to the best of researcher's scope of search, there is no any empirical study specifically on the relationship between utilitarian value and hedonic value with emotional attachment particularly in mobile phone setting. Therefore, this study has explored the influence of utilitarian value and hedonic value on emotional attachment. On the basis of research outcomes of this study, it is reported that hedonic value significantly influences customers' emotional attachment towards their mobile phone brand. These research outcomes can be said to furnish supportive explanation towards corroborating the claims of Oliver's four stage loyalty model who asserted that cognitive (value) affects affective (emotional attachment). As such, this study enriches the body of knowledge by empirically confirming that hedonic value is predictor of emotional attachment in context of mobile phone.

Thirdly, the study by Azize et al. (2012) in mobile phone context highlights that the effect of brand satisfaction on brand trust can only be generalised when this

relationship is tested across various geographical areas. To the best of researcher's knowledge, so far the linkage between brand satisfaction and brand trust in mobile phone setting has only been investigated in Singapore (Lam & Shankar, 2014), South Korea (Lee et al., 2015) and Turkey (Ercis et al., 2012). This relationship is still unaddressed in Malaysian background. This study therefore explores the association between brand satisfaction and brand trust in Malaysian mobile phone context. The outcomes of this study confirm that brand satisfaction significantly influences brand trust and these findings add to a growing body of literature on consumer brand relationship.

Fourthly, the linkage between emotional attachment and brand trust has been explored in various research settings. However, Sarkar et al. (2016) pointed out that findings of these studies on the association between emotional attachment and brand trust cannot be generalised in all markets because each market has its own idiosyncrasies specific to that particular market. Despite empirical studies in various research settings such as car battery market (Belaid & Behi, 2011), coffee brand (Jahn et al., 2012) and Volkswagen Golf GTI (Matzlet et al., 2011), literature indicates that there is seldom any study that has looked into the effect of emotional attachment and brand trust in mobile phone setting. Hence this study has empirically tested the influence of emotional attachment on brand trust in mobile phone setting and has confirmed that emotional attachment is predictor of brand trust in mobile phone setting. These findings enhance our understanding about the efficacy of emotional attachment in predicting brand trust particularly in mobile phone setting.

Fifthly, critical literature review about the relationship between brand trust and brand loyalty has identified a significant relationship in various contexts such as telecommunication (Malik et al., 2013; Amin et al., 2012; Nawaz & Usman, 2008), website environment (Lin & Lee, 2012), online setting (Ladhari & Leclerc, 2013; Kim et al., 2011; Laroche et al., 2012) and automotive context (Zehir et al., 2011; Sahir et al., 2011). However, some inconsistencies were also observed in online retailing (Rafiq et al., 2013; Eid, 2011) and university context (Hosseinei & Nahad, 2013). The literature reveals that there is no conclusive stand on this relationship as there have been inconsistent findings. This illustrates the need for more detailed investigations regarding the effect of brand trust on brand loyalty. More importantly, it should be noted from the literature that even though the linkage between brand trust and brand loyalty is significant in mobile phone context, but researchers have thrown up many research questions in need for further investigation on this linkage as discussed briefly in section 2.6.1. This study therefore has helped to develop a more rigorous understanding by empirically testing the effect of brand trust on mobile phone brand loyalty in Malaysian background, involving various mobile phone brands among heterogeneous age group customers. The evidence from this study suggests that brand trust has strong influence on brand loyalty in mobile phone setting and this research will serve as a basis for future loyalty studies particularly in mobile phone domain.

#### **5.4.2 Significant Moderating Role of Brand Reputation**

According to Blut et al. (2007), although Oliver's four stage loyalty model has been subject to various empirical examinations, however the issue of moderator variable in this model has not been given much attention by the researchers so far. A recent study

by Lin et al. (2015) raised concern about how a customer moves from conative loyalty to action loyalty and highlights need for further investigations. There is, therefore, need for investigation on the role of moderating variable in Oliver's four stage loyalty model particularly between conative and action loyalty.

According to Oliver (1999), the final stage of loyalty (action) would be eventually achieved when a strong facilitator such as brand reputation (a brand's capacity to be embedded in social networks) is present. This makes customers feel that they are part of preferable social groups and thereby they become determined defenders of the brand. Despite Oliver's insistence on such aspect of loyalty formation, to the best of researcher's scope of search, literature indicates that no any study that looked into the moderating role of brand reputation in formation of brand loyalty. In fact, most of the prior loyalty studies (e.g. Gul, 2014; Kuenzel & Halliday, 2010; Mahasuweerachai & Qu, 2015; Walsh et al., 2009) have tended to focus on brand reputation as an independent variable rather than as a moderator variable. This clearly shows that the extant literature has paid little attention to these different perspectives of the role of brand reputation. This situation represents one of the gaps in existing literature which has been filled in by this study about the possible moderating role of brand reputation in loyalty formation.

Previous research findings into effects of brand trust (conative) on brand loyalty (action) have been inconsistent and contradictory. For instance, there have been several studies in the literature reporting that brand trust has a significant relationship with brand loyalty across several markets from various countries (e.g. Mosavi & Kenarehfard, 2013; Ladhari & Leclerc, 2013; Malik et al., 2013; Gecti & Zengin,

2013; Forgas et al., 2012; Zehir et al., 2011; Lin & Lee, 2012). In contrast, few scholars found an insignificant relationship between brand trust and brand loyalty (e.g. Rafiq et al., 2013; Eid, 2011; Hosseinei & Nahad, 2012). As such, the equivocal findings on the relationship between brand trust (conative) and brand loyalty (action) depict that the relationship is under influence of certain variables. Present study points out that moderating effect of brand reputation may be one explanation for inconsistency in relationship between brand trust and brand loyalty noted in prior studies.

This study has set out to address these gaps by determining the moderating effect of brand reputation in forming brand loyalty. The results of this investigation elaborate that brand reputation plays a moderator role between brand trust (conative) and brand loyalty (action). Therefore, the moderating effect of brand reputation identified in this study contributes to existing body of knowledge in the area of brand loyalty formation. This special analysis of the moderating effect of brand reputation on brand loyalty adds substantially to the current literature on brand reputation as moderator variable.

Taken as a whole, studies relating to mobile phone brand loyalty formation phenomenon have been relatively scanty and faced with little conceptual consistency for explanation of brand loyalty formation, either behaviour or attitude base approach. Present study has contributed to a deeper theoretical understanding supported by empirical evidence. The study has shed light on the sequential linkage of utilitarian value and hedonic value; brand satisfaction; emotional attachment; brand trust; and brand loyalty with brand reputation as moderator in determining brand loyalty in mobile phone context. This study has made contribution by strengthening the



theoretical foundation of brand loyalty formation in the context of mobile phone. Hence, this study can be useful tool for future researchers in the area of mobile phone brand loyalty.

### **5.5 Practical Implications**

On practical front, the findings of this study are important for mobile phone brand owners because this study provide them practical insights into ways of forming brand loyalty among their customers. This study informs mobile phone brand owners that customer loyalty towards a mobile phone brand just doesn't happen but it is a four stage process.

During this process, high level of hedonic value raises customer's brand satisfaction and customer's emotional attachment towards the brand, which then leads to customers' brand trust. Building on this process, brand trust contributes to enhanced brand loyalty among mobile phone customers. Current study further signifies to mobile phone brand owners that reputation of the brand can be a facilitator in generating a customer's ultimate loyalty.

Since customer satisfaction and emotional attachment towards a mobile phone brand is greatly influenced by hedonic value, mobile phone managers should emphasize hedonic attributes of the phone such as HD display, touch screen, MP3 players, games application and the phone's aesthetic appeal including its shape and colour in their marketing communication. These hedonic attributes provide hedonic value to the customers which makes them feel satisfied with their mobile phone brand and makes them to become emotionally attached to their mobile phone brand. Therefore, mobile

phone brand owners can highlight the photo editing function of the mobile phone in advertisement to satisfy creative needs of customers and create a pleasurable experience for them.

Moreover, the conventional wisdom among mobile phone brand owners is that adding utilitarian attributes to meet functional convenience and self-efficiency leads to customer satisfaction toward their mobile phone brand. However, this study suggests a limited role of utilitarian value, implying that mobile phone brand owners should not focus merely on utilitarian features. Rather they should incorporate more hedonic features that give hedonic value to the users that in turn will lead to users' satisfaction and emotional attachment. Therefore, this study could serve as a guide for mobile phone brand owners who want to incorporate utilitarian and hedonic attributes in line with these values.

Since customers' satisfaction towards their mobile phone brand induces brand trust, mobile phone brand owners should develop a content strategy to increase customers' brand satisfaction. The mobile phone brand owners could justify the sale with social proof such as by informing each customer about testimonials from other customers to make them feel that they have made the right decision to use this brand of mobile phone. Moreover, mobile phone brand owners can surprise customers with free gifts such as phone accessories which will make them satisfied with a mobile phone brand and customers will have a positive attitude towards the brand. For instance, mobile phone brand owners can give out a free gift such as light-emitting diodes (LED) view phone cover, screen protector, fast charge battery pack, memory card, wireless headphones and so on to their customers with every purchase of their mobile phone.

Further, mobile phone brand owners can send out free gifts to customers who pre-ordered their upcoming mobile phones as a sign of appreciation. The mobile phone brand owners also can attach the free gift box with a note thanking the customer for his or her pre-order of their upcoming mobile phone. Rewarding customers with a rocking gift surprise will make the customers satisfied with the service provided by their mobile phone brand owners

Additionally, customers' needs change constantly and their expectations vary accordingly. Therefore, mobile phone brand owners must be flexible and continuously improve their phone technology in order to enhance customers' satisfaction towards their brand. This will make the customer feels that this brand does a good job in satisfying their needs and the phones provided by this brand is very satisfactory. The current study informs mobile phone brand owners that a mobile phone user is likely to trust a brand when he or she is satisfied with the brand in the first place.

Besides brand satisfaction, this study indicates that customers trust mobile phone brand when they feel emotionally attached to the brand. Therefore, mobile phone brand owners should foster a deeper bond with the customer so that they perceive the brand as 'a brand made for me' which is essential in gaining customers' trust in the mobile phone brand. Mobile phone brand owners can invite their customers with special offers and promotions which make customers feel that they are important and thereby makes them emotionally attached to the brand. Mobile phone brand owners also can give their product a humanised touch in an ever evolving technical world. Responding to customers' anxiety about speed of technological evolution, mobile phone brand owners can manage to create a special bond with their customers and let

them believe that the brand understands their needs. When a brand elicits feelings of emotional attachment in customers' heart, brands are more likely to prompt customers' desire to trust.

Finally, brand trust has a strong effect upon mobile phone brand loyalty and thus mobile phone brand owners need to invest in complaint handling; merchandising and communication strategies that aid in informing the customers about responsive attitude and behaviour of the brands. This will make customers feel confidence in the brand. Moreover, mobile phone brand owners need to strengthen their customer care service by highlighting customer focus before and after sales which will make customers feel that the brand would make any effort to satisfy the customer in case of a problem and they could rely on this brand to solve any problem with their phone. Mobile phone brand owners could also offer extended warranty to the customers to signal that their brand would compensate them in some way for their problems with phone. This study informs mobile phone brand owners that a customers' trust will lead to brand loyalty and restrain them from switching to the alternatives.

The empirical findings of this study inform mobile phone brand owners that reputation of a mobile phone brand strengthens the customer's loyalty behaviour. Customers' trust towards their mobile phone brand is inherently valuable, yet the reputation of the mobile phone brand determines the strength of influence of customers' brand trust on brand loyalty. Therefore, mobile phone brand owners need to enhance their reputation to strengthen the customers' loyalty. Focusing on external marketing communication may increase a brand's reputation. Information sources such as website, social network and newspaper articles may be better trusted and therefore can be more

influential in determining the reputation of a brand. Mobile phone brand owners therefore need to strengthen reputation of their brand through marketing communication channels. For instance, mobile phone brand owners can update list of accolades and awards that it's brand have received from professional association in their website. This will make the brand more reputable, easily recognisable and well known. Also the brand will appear to be one of the leading brands in market.

Overall, this study provides the sources of mobile phone brand loyalty and the process through which it is established in an integrated manner. Therefore, the integrated analysis with loyalty determinants will aid mobile phone brand owners, particularly in Malaysia in understanding the determinants and their relative importance to set their priority and allocation of marketing resources. From this study, mobile phone brand owners may gain knowledge in drawing up more effective customer retention strategies.

Apart from mobile phone brand owners, brand owners of other mobile devices such as tablets and ultra-mobile PCs could benefit from this study. This is because these devices almost have the same characteristics as mobile phones such as small size, portability and ability to enable user surf internet anywhere. Hence the practical insights into the sources of mobile phone brand loyalty in this study are applicable in the context of other mobile devices. This will help brand owners of other mobile devices to devise effective strategies to build customers' brand loyalty.

## **5.6 Limitation of the Study and Directions for Future Research**

Although current study has offered support for the hypothesized relationships between variables, the results have to be interpreted with consideration of the study's limitation. Firstly, the targeted population in this study was limited to mobile phone users in Klang Valley, which does not reflect the actual loyalty behaviour of mobile phone users nationwide. Hence future study may be required to survey the mobile phone users nationwide.

Secondly, current study is a cross sectional study and does not allow causal interference to be consistent over time. Therefore, it is recommended that future research need to be undertaken using a longitudinal design to test the theoretical constructs at different points of time in order to strengthen the result of this study.

Thirdly, even though this study was not limited to a certain age group, but majority of the respondents were in the age group of 21-30 years old, indicating that most of the respondents are young. Therefore, there are opportunities for future research to expand the findings of this study by considering an equal number of mobile phone users in each age group.

Fourthly, another limitation is the high number of female respondents. About 59% i.e. more than half of the respondents were female. The high composition of female respondents may bias the result. Future research should therefore concentrate on the composition of both male and female equally.

Finally, although brand reputation moderates the relationship between brand trust and brand loyalty, yet the effect size was small, 0.02. Possibly, some other factors such as inertia and individual characteristics (gender, age, population) may moderate the relationship between brand trust and brand loyalty. Such variables have been demonstrated in the literature to play a significant moderating role in brand loyalty (Kim et al., 2016; Lam & Shankar, 2014; Han et al., 2011). The moderating role of these variables may have strong relevance to the mobile phone context. Hence future research is encouraged to examine whether these variables might moderate the relationship between brand trust and brand loyalty.

## **5.7 Conclusion**

Brand loyalty has been debated among academics and practitioners since 1978. Oliver's four stage loyalty model is considered the most comprehensive theoretical approach to study brand loyalty because it adequately captures both attitudinal and behavioral approaches. Therefore, this study is grounded in relation to Oliver's four stage loyalty model. Taken together, present study has provided additional evidence to the growing body of knowledge concerning the sequential linkage of utilitarian value and hedonic value; brand satisfaction and emotional attachment; brand trust and mobile phone brand loyalty. The study, moreover, sheds light on the moderating role of brand reputation in brand loyalty formation in mobile phone context. Results from this study lend support to the key theoretical propositions. In particular, the current study has successfully answered all of the research questions and objectives despite its limitations. The theoretical model of this study is robust model that offers a clearer understanding of customers' brand loyalty formation in the context of mobile phone.

Besides theoretical contribution, the findings of this study provide practical implications for mobile phone brand owners. The research model can assist mobile phone brand owners to understand and identify factors that affect customers' loyalty towards mobile phone brand. The mobile phone brand owners may use this knowledge in formulating appropriate customer retention strategies that are cost effective. In this regard, mobile phone brand owners will be able to sustain their market shares in this highly competitive business environment. The study findings may help the mobile phone brand owners to prolong their business growth stage and prevent them from being trapped into decline when the market enters into the maturity stage as has been forecasted by Euromonitor International (2016).





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## APPENDICES

### Appendix A: Questionnaire

#### **DETERMINANTS OF CUSTOMERS' MOBILE PHONE BRAND LOYALTY IN MALAYSIA: THE MODERATING ROLE OF BRAND REPUTATION.**

Dear Mr/Mrs/Madam,

I am a Doctorate student at University Utara Malaysia and currently conducting a study on customers' brand loyalty towards their mobile phone. I would like to extend my appreciation to you for your kind consideration in participating in this survey. You only need 15 minutes to complete this questionnaire and there is **NO RIGHT AND WRONG ANSWER**, so feel free to answer based on your own experience.

For your information, data gained from this study is **STRICTLY FOR AN ACADEMIC PURPOSE** only and will remain **STRICTLY CONFIDENTIAL**.

Thank you for your thoughtfulness and participation.

Doctoral Researcher,  
Linda Seduram (0149048353)

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#### ***PENENTU KESETIAAN JENAMA PELANGGAN TELEFON BIMBIT DI MALAYSIA: PERANAN PENYEDERHANA REPUTASI JENAMA***

*Tuan/Puan/Cik,*

*Saya adalah pelajar ijazah kedoktoran di Universiti Utara Malaysia dan pada masa ini menjalankan satu kajian tentang kesetiaan jenama pelanggan terhadap telefon bimbit mereka. Saya menghargai jasa baik tuan/puan/cik kerana mengambil bahagian dalam kaji selidik ini. Tuan/puan/cik cuma memerlukan 15 minit untuk melengkapkan kaji selidik ini dan tiada **JAWAPAN BETUL ATAU SALAH**. Tuan/puan/cik bebas menjawab soalan berdasarkan pengalaman sendiri.*

*Sebagai makluman, data yang diperolehi daripada kajian ini adalah **SEMATA-MATA UNTUK TUJUAN AKADEMIK** dan kekal **SULIT**.*

*Terima kasih atas jasa baik dan penyertaan tuan/puan/cik.*

*Linda Seduram  
0149048353*

## SECTION A / BAHAGIAN A

**Instruction: This section is a preliminary question. Please answer all of the questions frankly and honestly. You are indicated to tick (✓) at appropriate box and fill in your answer at the blank.**

*Bahagian ini adalah merupakan bahagian wajib jawab. Sila jawab soalan ini dengan jujur. Sila tandakan (✓) pada kotak yang berkenaan dan isikan jawapan pada tempat kosong yang berkaitan.*

1. Do you have hand phone, if “Yes” please complete all the remaining parts of this questionnaire, if “No” you do not have to proceed.

*Adakah anda menggunakan telefon bimbit, jika “Ya” sila jawab soalan yang seterusnya, jika “Tidak” anda tidak perlu menjawab soalan seterusnya.*

A. Yes / Ya [       ]       B. No / Tidak [       ]

2. What is the brand of your mobile phone that you are currently using? Choose only **ONE** brand.

*Apakah jenama telefon bimbit yang anda sedang gunakan pada masa ini? Silih pilih hanya **SATU** jenama di bawah.*

A. Apple [       ]       B. Samsung [       ]

C. Nokia [       ]       D. HTC [       ]

E. Blackberry [       ]       F. Sony [       ]

G. Motorola [       ]       H. LG [       ]

I. Lenovo [       ]       J. Asus [       ]

K. Huawei [       ]       L. Oppo [       ]

M. Acer [       ]       N. ZTE [       ]

O. Xiaomi [       ]       P. Others, please specify:  
*Lain –lain, sila nyatakan; \_\_\_\_\_*

## SECTION B / BAHAGIAN B

Based on the mobile phone brand that you have selected in **Section A (Question 2)**, please evaluate your attitude toward this mobile phone brand for the following items using the following scale:

Berdasarkan jenama telefon bimbit yang anda pilih di **Bahagian A (Soalan 2)**, sila nilaikan sikap anda terhadap jenama telefon bimbit tersebut berdasarkan perkara dibawah dengan menggunakan skala penilaian berikut:

| 1                       | 2                   | 3                         | 4       | 5                         | 6                   | 7                       |
|-------------------------|---------------------|---------------------------|---------|---------------------------|---------------------|-------------------------|
| Extremely X /<br>Amat X | Quite X /<br>Agak X | Slightly X /<br>Sedikit X | Neutral | Slightly Y /<br>Sedikit Y | Quite Y /<br>Agak Y | Extremely Y /<br>Amat Y |

**This brand of mobile phone is...**

*Telefon bimbit berjenama ini ialah...*

|                              |   |   |   |   |   |   |   |                      |
|------------------------------|---|---|---|---|---|---|---|----------------------|
| X                            |   |   |   |   |   |   |   | Y                    |
| Ineffective /<br>Tidak Cekap | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Effective /<br>Cekap |

|                               |   |   |   |   |   |   |   |                       |
|-------------------------------|---|---|---|---|---|---|---|-----------------------|
| X                             |   |   |   |   |   |   |   | Y                     |
| Unhelpful /<br>Tidak membantu | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Helpful /<br>Membantu |

|                                       |   |   |   |   |   |   |   |                        |
|---------------------------------------|---|---|---|---|---|---|---|------------------------|
| X                                     |   |   |   |   |   |   |   | Y                      |
| Not functional* /<br>Tidak berfungsi* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Functional /<br>Fungsi |

|                              |   |   |   |   |   |   |   |                      |
|------------------------------|---|---|---|---|---|---|---|----------------------|
| X                            |   |   |   |   |   |   |   | Y                    |
| Unnecessary /<br>Tidak perlu | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Necessary /<br>Perlu |

|                                    |   |   |   |   |   |   |   |                          |
|------------------------------------|---|---|---|---|---|---|---|--------------------------|
| X                                  |   |   |   |   |   |   |   | Y                        |
| Impractical* /<br>Tidak praktikal* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Practical /<br>Praktikal |

**\*Note / Nota:**

- Functional / *Berfungsi*: capable of serving a useful purpose (e.g. mobile banking) / *boleh digunakan untuk tujuan berguna (contohnya, perbankan bergerak)*.
- Practical / *Praktikal*: designed to be useful rather than attractive / *direka bentuk untuk tujuan berguna bukannya untuk tujuan tarikan*.

## SECTION C / BAHAGIAN C

Based on the mobile phone brand that you have selected in **Section A (Question 2)**, please evaluate your attitude toward this mobile phone brand for the following items using the following scale:

Berdasarkan jenama telefon bimbit yang anda pilih di **Bahagian A (Soalan 2)**, sila nilaikan sikap anda terhadap jenama telefon bimbit tersebut berdasarkan perkara dibawah dengan menggunakan skala penilaian berikut:

| 1                       | 2                   | 3                         | 4       | 5                         | 6                   | 7                       |
|-------------------------|---------------------|---------------------------|---------|---------------------------|---------------------|-------------------------|
| Extremely X /<br>Amat X | Quite X /<br>Agak X | Slightly X /<br>Sedikit X | Neutral | Slightly Y /<br>Sedikit Y | Quite Y /<br>Agak Y | Extremely Y /<br>Amat Y |

**This brand of mobile phone is...**

*Telefon bimbit berjenama ini ialah...*

X  
Not Fun /  
*Tidak menyeronokkan*

1 2 3 4 5 6 7

Y  
Fun /  
*Menyeronokkan*

X  
Dull /  
*Membosankan*

1 2 3 4 5 6 7

Y  
Exciting /  
*Merangsangkan*

X  
Not delightful /  
*Tidak menyenangkan*

1 2 3 4 5 6 7

Y  
Delightful /  
*Menyenangkan*

X  
Not thrilling /  
*Tidak mengujakan*

1 2 3 4 5 6 7

Y  
Thrilling /  
*Mengujakan*

X  
Unenjoyable /  
*Tidak menggembirakan*

1 2 3 4 5 6 7

Y  
Enjoyable/  
*Menggembirakan*



## SECTION D / BAHAGIAN D

Based on the mobile phone brand that you have selected, please indicate the extent of your opinion for the statement concerning your **satisfaction** towards your mobile phone brand by using following scales:

*Berdasarkan jenama telefon bimbit yang anda pilih, sila nyatakan pendapat anda mengenai **kepuasan** terhadap jenama telefon bimbit tersebut dengan menggunakan skala yang berikut:*

| 1<br>Strongly<br>Disagree /<br><i>Sangat tidak<br/>setuju</i> | 2<br>Disagree /<br><i>Tidak setuju</i> | 3<br>Slightly<br>Disagree /<br><i>Kurang<br/>setuju</i> | 4<br>Neutral | 5<br>Slightly<br>agree /<br><i>Sedikit<br/>setuju</i> | 6<br>Agree /<br><i>Setuju</i> | 7<br>Strongly<br>agree /<br><i>Sangat<br/>setuju</i> |
|---|--|---|--------------|---|-------------------------------|--|
|---|--|---|--------------|---|-------------------------------|--|

| No | Statements / Pernyataan – pernyataan  |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|
| 1. | I am very satisfied with the service provided by this brand.<br><i>Saya sangat berpuas hati dengan perkhidmatan yang disediakan oleh jenama ini.</i>                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | This brand does a good job of satisfying my needs.<br><i>Jenama ini menyediakan perkhidmatan terbaik dalam memenuhi keperluan saya.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | The phones provided by this brand is very satisfactory.<br><i>Telefon bimbit yang disediakan oleh jenama ini sangat memuaskan hati.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | I believe that using this brand is usually a very satisfying experience.<br><i>Saya percaya bahawa menggunakan jenama ini selalunya merupakan pengalaman yang memuaskan hati.</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | I made the right decision when I decided to use this brand.<br><i>Saya membuat keputusan yang tepat apabila saya memutuskan untuk menggunakan jenama ini.</i>                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | I am addicted to this brand in some way.<br><i>Saya mempunyai ketagihan terhadap jenama ini.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | I am very satisfied with this brand.<br><i>Saya sangat berpuas hati dengan jenama ini.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | This brand fulfills my expectations completely.<br><i>Jenama ini memenuhi jangkaan saya sepenuhnya.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | I have positive attitude towards this brand.<br><i>Saya bersikap positif terhadap jenama ini.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## SECTION E / BAHAGIAN E

Based on the mobile phone brand that you have selected, please indicate the extent of your opinion for the statement concerning your **emotional attachment** towards your mobile phone brand by using following scales:

*Berdasarkan jenama telefon bimbit yang anda pilih, sila nyatakan pendapat anda mengenai **hubungan emosi** anda terhadap jenama telefon bimbit tersebut dengan menggunakan skala yang berikut:*

| 1<br>Strongly<br>Disagree /<br><i>Sangat tidak<br/>setuju</i> | 2<br>Disagree /<br><i>Tidak setuju</i> | 3<br>Slightly<br>Disagree /<br><i>Kurang<br/>setuju</i> | 4<br>Neutral | 5<br>Slightly<br>agree /<br><i>Sedikit<br/>setuju</i> | 6<br>Agree /<br><i>Setuju</i> | 7<br>Strongly<br>agree /<br><i>Sangat<br/>setuju</i> |
|---|--|---|--------------|---|-------------------------------|--|
|---|--|---|--------------|---|-------------------------------|--|

| No | Statement / Pernyataan – pernyataan  |   |   |   |   |   |   |   |
|----|--|---|---|---|---|---|---|---|
| 1. | I feel emotionally attached to the brand that I am currently using.<br><i>Saya terikat dari segi emosi pada jenama yang saya gunakan pada masa ini.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | This brand means a lot to me personally.<br><i>Secara peribadi, jenama ini sangat bermakna bagi saya.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | Even it is an advantage for me if I switch to another brand but I would not feel good about switching to that brand.<br><i>Saya tidak rasa gembira untuk menukar kepada jenama lain walaupun ia menguntungkan saya jika saya berbuat demikian.</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | I identify myself with this brand.<br><i>Saya menentukan identiti diri saya dengan jenama ini.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | I feel special bond between myself and this brand.<br><i>Saya merasakan ikatan istimewa antara diri saya dengan jenama ini.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## SECTION F / BAHAGIAN F

Based on the mobile phone brand that you have selected, please indicate the extent of your opinion for the statement concerning your **trust** towards your mobile phone brand by using following scales:

*Berdasarkan jenama telefon bimbit yang anda pilih, sila nyatakan pendapat anda mengenai **kepercayaan** anda terhadap jenama telefon bimbit tersebut dengan menggunakan skala yang berikut:*

| 1                                       | 2                       | 3                                 | 4       | 5                               | 6              | 7                              |
|---|-------------------------|-----------------------------------|---------|---------------------------------|----------------|--------------------------------|
| Strongly Disagree / Sangat tidak setuju | Disagree / Tidak setuju | Slightly Disagree / Kurang setuju | Neutral | Slightly agree / Sedikit setuju | Agree / Setuju | Strongly agree / Sangat setuju |

| No | Statements / Pernyataan – pernyataan  |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|
| 1. | This brand meets my expectations.<br><i>Jenama ini memenuhi jangkaan saya.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | I feel confidence in this brand.<br><i>Saya berasa yakin dengan jenama ini.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | This brand never disappoints me.<br><i>Jenama ini tidak pernah mengecewakan saya.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | This brand guarantees satisfaction.<br><i>Jenama ini menjamin kepuasan.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | This brand would be honest and sincere in addressing my concerns.<br><i>Jenama ini jujur dan ikhlas dalam menangani kebimbangan saya.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | I could rely on this brand to solve any problem with the mobile phone.<br><i>Saya boleh mengharapkan jenama ini untuk menyelesaikan sebarang masalah dengan telefon bimbit saya.</i>      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | This brand would make any effort to satisfy me in case of a problem.<br><i>Jenama ini berusaha untuk memuaskan saya jika berlaku masalah.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | This brand would compensate me in some way for the problem with the phone.<br><i>Jenama ini memampasi (mengganti rugi) saya dalam suatu cara bagi masalah yang terdapat pada telefon.</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## SECTION G / BAHAGIAN G

Based on the mobile phone brand that you have selected, please indicate the extent of your opinion for the statement concerning the **reputation** of your mobile phone brand by using following scales:

*Berdasarkan jenama telefon bimbit yang anda pilih, sila nyatakan pendapat anda mengenai reputasi jenama telefon bimbit tersebut dengan menggunakan skala yang berikut:*

| 1                                       | 2                       | 3                                 | 4       | 5                               | 6              | 7                              |
|---|-------------------------|-----------------------------------|---------|---------------------------------|----------------|--------------------------------|
| Strongly Disagree / Sangat tidak setuju | Disagree / Tidak setuju | Slightly Disagree / Kurang setuju | Neutral | Slightly agree / Sedikit setuju | Agree / Setuju | Strongly agree / Sangat setuju |

| No | Statements / Pernyataan – pernyataan  |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|
| 1. | This brand is well known.<br><i>Jenama ini terkenal.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | This brand is one of the leading brand among the mobile phone brands.<br><i>Jenama ini merupakan salah satu daripada jenama terkemuka antara jenama-jenama telefon bimbit</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | This brand is reputable.<br><i>Jenama ini bereputasi baik</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | This brand is easily recognizable.<br><i>Jenama ini mudah dikenal.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## SECTION H / BAHAGIAN H

Based on the mobile phone brand that you have selected, please indicate the extent of your opinion for the statement concerning your **loyalty** towards your mobile phone brand by using following scales:

*Berdasarkan jenama telefon bimbit yang anda pilih, sila nyatakan pendapat anda mengenai kesetiaan anda terhadap jenama telefon bimbit tersebut dengan menggunakan skala yang berikut:*

| 1                                       | 2                       | 3                                 | 4       | 5                               | 6              | 7                              |
|---|-------------------------|-----------------------------------|---------|---------------------------------|----------------|--------------------------------|
| Strongly Disagree / Sangat tidak setuju | Disagree / Tidak setuju | Slightly Disagree / Kurang setuju | Neutral | Slightly agree / Sedikit setuju | Agree / Setuju | Strongly agree / Sangat setuju |

| No | Statements / Pernyataan – pernyataan  |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|
| 1. | I am a loyal customer of this brand.<br><i>Saya merupakan pelanggan setia jenama ini.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | I will buy this brand in my next purchase.<br><i>Saya akan membeli jenama ini untuk pembelian seterusnya.</i>   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | I consider my current brand as a first choice for mobile phone brands.<br><i>Saya berpendapat jenama yang saya gunakan sekarang adalah pilihan pertama untuk jenama telefon bimbit.</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | I have said positive things about this brand to other people.<br><i>Saya pernah memberitahu orang lain perkara positif tentang jenama ini.</i>  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | I have recommended this brand to someone who sought my advice.<br><i>Saya telah mencadangkan jenama ini kepada seseorang yang mendapatkan nasihat saya.</i>                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## SECTION I / BAHAGIAN I

**Instruction: The following section lists some questions about your personal information. Please tick (✓) appropriate box and fill in the blanks.**

*Arahan: Sila tandakan (✓) pada kotak yang berkenaan dan isikan jawapan di tempat kosong yang berkaitan.*

1. Gender / Jantina :

A. Male / *Lelaki* [      ]      B. Female / *Perempuan* [      ]

2. Ethnicity / Etnik :

A. Malay / *Melayu* [      ]      B. Chinese / *Cina* [      ]

C. Indian / *India* [      ]      D. Others (Please specify)  
*Lain – lain (Sila nyatakan)* \_\_\_\_\_

3. Age / Umur :

A. Under 20 years old [      ]      B. 21 to 30 years old [      ]  
*Kurang daripada 20 tahun*      *21 hingga 30 tahun*

C. 31 to 40 years old [      ]      D. 41 to 50 years old [      ]  
*31 hingga 40 tahun*      *41 hingga 50 tahun*

E. 51 to 60 years old [      ]      F. Over 60 years old [      ]  
*51 hingga 60 tahun*      *Melebihi 60 tahun*

4. Marital Status / Status perkahwinan

A. Single / *Belum berkahwin* [      ]      B. Married / *Berkahwin* [      ]

5. Highest Education Level / Tahap pendidikan tertinggi

A. Primary School / *Sekolah Rendah* [      ]

B. Secondary School / *Sekolah Menengah* [      ]

C. College (Certificate, Diploma, Advance Diploma)  
*Kolej (Sijil, Diploma, Diploma Lanjutan)* [      ]

D. Degree / *Ijazah* [      ]

E. Post Degree (Masters, PhD)  
*Ijazah Lanjutan (Sarjana, PhD)* [      ]

6. Occupation / *Pekerjaan*

- A. Student / *Pelajar* [      ]
- B. Employee / *Pekerja* [      ]
- C. Self-employed / *Bekerja sendiri* [      ]
- D. Unemployed / *Tidak bekerja* [      ]
- E. Housewife / *Surirumah* [      ]

7. Monthly Income / Pendapatan bulanan

- |  |          |  |          |
|--|----------|--|----------|
| A. RM 1000 and below<br><i>RM 1000 dan kebawah</i>       | [      ] | B. RM 1001-RM3000<br><i>RM 1001-RM3000</i> | [      ] |
| C. RM 3001-RM 5000<br><i>RM 3001-RM5000</i>              | [      ] | D. RM 5001-RM 7000<br><i>RM5001-RM7000</i> | [      ] |
| E. RM 7001-RM 9000<br><i>RM7001-RM 9000</i>              | [      ] | F. RM9001-RM10000<br><i>RM9001-RM10000</i> | [      ] |
| G. RM 11, 001 and above<br><i>RM 11, 001 dan ke atas</i> | [      ] | H. No income                               | [      ] |

**Thank you for participating in this survey.**  
***Terima kasih kerana sudi melibatkan diri dalam kajian ini.***

## Appendix B: Reliability results for pilot study

### Utilitarian Value

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .903             | .904   | 5          |

### Hedonic Value

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .958             | .957   | 5          |

### Brand satisfaction

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .953             | .956   | 9          |

### Emotional Attachment

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .897             | .897   | 5          |



### Brand Trust

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .947             | .948   | 8          |

### Brand Reputation

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .968             | .968   | 4          |

### Brand Loyalty

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .906             | .906   | 5          |

## Appendix C: G\*Power output

[1] -- Sunday, March 05, 2017 -- 14:24:51

**F tests** – Linear multiple regression: Fixed model,  $R^2$  deviation from zero

**Analysis:** A priori: Compute required sample size

**Input:** Effect size  $f^2$  = 0.15  
 $\alpha$  err prob = 0.05  
Power ( $1-\beta$  err prob) = 0.80  
Number of predictors = 7

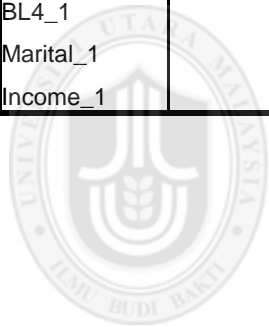
**Output:** Noncentrality parameter  $\lambda$  = 15.4500000  
Critical F = 2.1075065  
Numerator df = 7  
Denominator df = 95  
Total sample size = 103  
Actual power = 0.8004218



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## Appendix D: Missing Values Output

| Result Variables |                 |                              |                                   |      |                  |                   |
|------------------|-----------------|------------------------------|-----------------------------------|------|------------------|-------------------|
|                  | Result Variable | N of Replaced Missing Values | Case Number of Non-Missing Values |      | N of Valid Cases | Creating Function |
|                  |                 |                              | First                             | Last |                  |                   |
| 1                | UV2_1           | 1                            | 1                                 | 327  | 327              | SMEAN(UV2)        |
| 2                | HV5_1           | 1                            | 1                                 | 327  | 327              | SMEAN(HV5)        |
| 3                | BS2_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BS2)        |
| 4                | BS3_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BS3)        |
| 5                | BS4_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BS4)        |
| 6                | BS6_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BS6)        |
| 7                | BT2_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BT2)        |
| 8                | BT4_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BT4)        |
| 9                | BT6_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BT6)        |
| 10               | BL4_1           | 1                            | 1                                 | 327  | 327              | SMEAN(BL4)        |
| 11               | Marital_1       | 1                            | 1                                 | 327  | 327              | SMEAN(Marital)    |
| 12               | Income_1        | 1                            | 1                                 | 327  | 327              | SMEAN(Income)     |



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## Appendix E: Chi-square Table

| df | P = 0.05 | P = 0.01 | P = 0.001 |
|----|----------|----------|-----------|
| 1  | 3.84     | 6.64     | 10.83     |
| 2  | 5.99     | 9.21     | 13.82     |
| 3  | 7.82     | 11.35    | 16.27     |
| 4  | 9.49     | 13.28    | 18.47     |
| 5  | 11.07    | 15.09    | 20.52     |
| 6  | 12.59    | 16.81    | 22.46     |
| 7  | 14.07    | 18.48    | 24.32     |
| 8  | 15.51    | 20.09    | 26.13     |
| 9  | 16.92    | 21.67    | 27.88     |
| 10 | 18.31    | 23.21    | 29.59     |
| 11 | 19.68    | 24.73    | 31.26     |
| 12 | 21.03    | 26.22    | 32.91     |
| 13 | 22.36    | 27.69    | 34.53     |
| 14 | 23.69    | 29.14    | 36.12     |
| 15 | 25.00    | 30.58    | 37.70     |
| 16 | 26.30    | 32.00    | 39.25     |
| 17 | 27.59    | 33.41    | 40.79     |
| 18 | 28.87    | 34.81    | 42.31     |
| 19 | 30.14    | 36.19    | 43.82     |
| 20 | 31.41    | 37.57    | 45.32     |
| 21 | 32.67    | 38.93    | 46.80     |
| 22 | 33.92    | 40.29    | 48.27     |
| 23 | 35.17    | 41.64    | 49.73     |
| 24 | 36.42    | 42.98    | 51.18     |
| 25 | 37.65    | 44.31    | 52.62     |
| 26 | 38.89    | 45.64    | 54.05     |
| 27 | 40.11    | 46.96    | 55.48     |
| 28 | 41.34    | 48.28    | 56.89     |
| 29 | 42.56    | 49.59    | 58.30     |
| 30 | 43.77    | 50.89    | 59.70     |
| 31 | 44.99    | 52.19    | 61.10     |
| 32 | 46.19    | 53.49    | 62.49     |

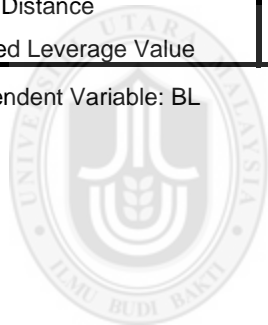
|    |       |       |        |
|----|-------|-------|--------|
| 33 | 47.40 | 54.78 | 63.87  |
| 34 | 48.60 | 56.06 | 65.25  |
| 35 | 49.80 | 57.34 | 66.62  |
| 36 | 51.00 | 58.62 | 67.99  |
| 37 | 52.19 | 59.89 | 69.35  |
| 38 | 53.38 | 61.16 | 70.71  |
| 39 | 54.57 | 62.43 | 72.06  |
| 40 | 55.76 | 63.69 | 73.41  |
| 41 | 56.94 | 64.95 | 74.75  |
| 42 | 58.12 | 66.21 | 76.09  |
| 43 | 59.30 | 67.46 | 77.42  |
| 44 | 60.48 | 68.71 | 78.75  |
| 45 | 61.66 | 69.96 | 80.08  |
| 46 | 62.83 | 71.20 | 81.40  |
| 47 | 64.00 | 72.44 | 82.72  |
| 48 | 65.17 | 73.68 | 84.03  |
| 49 | 66.34 | 74.92 | 85.35  |
| 50 | 67.51 | 76.15 | 86.66  |
| 51 | 68.67 | 77.39 | 87.97  |
| 52 | 69.83 | 78.62 | 89.27  |
| 53 | 70.99 | 79.84 | 90.57  |
| 54 | 72.15 | 81.07 | 91.88  |
| 55 | 73.31 | 82.29 | 93.17  |
| 56 | 74.47 | 83.52 | 94.47  |
| 57 | 75.62 | 84.73 | 95.75  |
| 58 | 76.78 | 85.95 | 97.03  |
| 59 | 77.93 | 87.17 | 98.34  |
| 60 | 79.08 | 88.38 | 99.62  |
| 61 | 80.23 | 89.59 | 100.88 |
| 62 | 81.38 | 90.80 | 102.15 |
| 63 | 82.53 | 92.01 | 103.46 |
| 64 | 83.68 | 93.22 | 104.72 |
| 65 | 84.82 | 94.42 | 105.97 |
| 66 | 85.97 | 95.63 | 107.26 |
| 67 | 87.11 | 96.83 | 108.54 |

|     |        |        |        |
|-----|--------|--------|--------|
| 68  | 88.25  | 98.03  | 109.79 |
| 69  | 89.39  | 99.23  | 111.06 |
| 70  | 90.53  | 100.42 | 112.31 |
| 71  | 91.67  | 101.62 | 113.56 |
| 72  | 92.81  | 102.82 | 114.84 |
| 73  | 93.95  | 104.01 | 116.08 |
| 74  | 95.08  | 105.20 | 117.35 |
| 75  | 96.22  | 106.39 | 118.60 |
| 76  | 97.35  | 107.58 | 119.85 |
| 77  | 98.49  | 108.77 | 121.11 |
| 78  | 99.62  | 109.96 | 122.36 |
| 79  | 100.75 | 111.15 | 123.60 |
| 80  | 101.88 | 112.33 | 124.84 |
| 81  | 103.01 | 113.51 | 126.09 |
| 82  | 104.14 | 114.70 | 127.33 |
| 83  | 105.27 | 115.88 | 128.57 |
| 84  | 106.40 | 117.06 | 129.80 |
| 85  | 107.52 | 118.24 | 131.04 |
| 86  | 108.65 | 119.41 | 132.28 |
| 87  | 109.77 | 120.59 | 133.51 |
| 88  | 110.90 | 121.77 | 134.74 |
| 89  | 112.02 | 122.94 | 135.96 |
| 90  | 113.15 | 124.12 | 137.19 |
| 91  | 114.27 | 125.29 | 138.45 |
| 92  | 115.39 | 126.46 | 139.66 |
| 93  | 116.51 | 127.63 | 140.90 |
| 94  | 117.63 | 128.80 | 142.12 |
| 95  | 118.75 | 129.97 | 143.32 |
| 96  | 119.87 | 131.14 | 144.55 |
| 97  | 120.99 | 132.31 | 145.78 |
| 98  | 122.11 | 133.47 | 146.99 |
| 99  | 123.23 | 134.64 | 148.21 |
| 100 | 124.34 | 135.81 | 149.48 |

## Appendix F: Mahalanobis Distance Output

| Residuals Statistics <sup>a</sup> |          |         |         |                |     |
|-----------------------------------|----------|---------|---------|----------------|-----|
|                                   | Minimum  | Maximum | Mean    | Std. Deviation | N   |
| Predicted Value                   | 1.4800   | 6.7642  | 4.8673  | 1.02674        | 327 |
| Std. Predicted Value              | -3.299   | 1.848   | .000    | 1.000          | 327 |
| Standard Error of Predicted Value | .058     | .405    | .119    | .045           | 327 |
| Adjusted Predicted Value          | 1.5072   | 6.8011  | 4.8680  | 1.02563        | 327 |
| Residual                          | -2.87451 | 2.45416 | .00000  | .85726         | 327 |
| Std. Residual                     | -3.322   | 2.836   | .000    | .991           | 327 |
| Stud. Residual                    | -3.364   | 2.903   | .000    | 1.006          | 327 |
| Deleted Residual                  | -2.96749 | 2.57118 | -.00072 | .88342         | 327 |
| Stud. Deleted Residual            | -3.420   | 2.938   | -.001   | 1.010          | 327 |
| Mahal. Distance                   | .444     | 70.406  | 5.982   | 6.412          | 327 |
| Cook's Distance                   | .000     | .173    | .004    | .013           | 327 |
| Centered Leverage Value           | .001     | .216    | .018    | .020           | 327 |

a. Dependent Variable: BL



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## Appendix G: Multicollinearity Output

Dependent Variable: Brand Loyalty

**Coefficients<sup>a</sup>**

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|--------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|              | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1 (Constant) | 1.009                       | .272       |                           | 3.703  | .000 |                         |       |
| BT           | .785                        | .054       | .627                      | 14.496 | .000 | 1.000                   | 1.000 |

a. Dependent Variable: BL

**Collinearity Diagnostics<sup>a</sup>**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |
|-------|-----------|------------|-----------------|----------------------|-----|
|       |           |            |                 | (Constant)           | BT  |
| 1     | 1         | 1.977      | 1.000           | .01                  | .01 |
|       | 2         | .023       | 9.329           | .99                  | .99 |

a. Dependent Variable: BL

Dependent Variable: Brand Trust

**Coefficients<sup>a</sup>**

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|--------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|              | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1 (Constant) | .759                        | .192       |                           | 3.944  | .000 |                         |       |
| BS           | .579                        | .041       | .554                      | 14.217 | .000 | .765                    | 1.306 |
| EA           | .252                        | .028       | .355                      | 9.117  | .000 | .765                    | 1.306 |

a. Dependent Variable: BT

**Collinearity Diagnostics<sup>a</sup>**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |     |
|-------|-----------|------------|-----------------|----------------------|-----|-----|
|       |           |            |                 | (Constant)           | BS  | EA  |
| 1     | 1         | 2.923      | 1.000           | .00                  | .00 | .01 |
|       | 2         | .060       | 6.984           | .16                  | .03 | .89 |
|       | 3         | .017       | 13.209          | .83                  | .96 | .10 |

a. Dependent Variable: BT



Dependent Variable: Brand Satisfaction

**Coefficients<sup>a</sup>**

| Model      | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|            | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| (Constant) | 3.288                       | .226       |                           | 14.532 | .000 |                         |       |
| 1 UV       | .084                        | .058       | .107                      | 1.439  | .151 | .443                    | 2.256 |
| HV         | .296                        | .058       | .375                      | 5.065  | .000 | .443                    | 2.256 |

a. Dependent Variable: BS

**Collinearity Diagnostics<sup>a</sup>**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |     |
|-------|-----------|------------|-----------------|----------------------|-----|-----|
|       |           |            |                 | (Constant)           | UV  | HV  |
| 1     | 1         | 2.952      | 1.000           | .01                  | .00 | .00 |
|       | 2         | .033       | 9.416           | .99                  | .10 | .15 |
|       | 3         | .014       | 14.393          | .00                  | .90 | .85 |

a. Dependent Variable: BS

Dependent Variable: Emotional Attachment

**Coefficients<sup>a</sup>**

| Model      | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|            | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| (Constant) | 3.056                       | .365       |                           | 8.382  | .000 |                         |       |
| 1 UV       | -.098                       | .094       | -.084                     | -1.041 | .299 | .443                    | 2.256 |
| HV         | .347                        | .094       | .299                      | 3.690  | .000 | .443                    | 2.256 |

a. Dependent Variable: EA

**Collinearity Diagnostics<sup>a</sup>**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |     |     |
|-------|-----------|------------|-----------------|----------------------|-----|-----|
|       |           |            |                 | (Constant)           | UV  | HV  |
| 1     | 1         | 2.952      | 1.000           | .01                  | .00 | .00 |
|       | 2         | .033       | 9.416           | .99                  | .10 | .15 |
|       | 3         | .014       | 14.393          | .00                  | .90 | .85 |

a. Dependent Variable: EA

## Appendix H: Group Statistics

|    | Time  | N   | Mean   | Std. Deviation | Std. Error Mean |
|----|-------|-----|--------|----------------|-----------------|
| UV | Early | 294 | 5.4116 | 1.32098        | .07704          |
|    | Late  | 33  | 5.2788 | 1.12132        | .19520          |
| HV | Early | 294 | 5.2558 | 1.27615        | .07443          |
|    | Late  | 33  | 4.9333 | 1.43846        | .25040          |
| BS | Early | 294 | 5.2963 | 1.02370        | .05970          |
|    | Late  | 33  | 5.1818 | 1.00417        | .17480          |
| EA | Early | 294 | 4.3218 | 1.52799        | .08911          |
|    | Late  | 33  | 4.5455 | 1.29061        | .22467          |
| BT | Early | 294 | 4.9239 | 1.07797        | .06287          |
|    | Late  | 33  | 4.8182 | .97633         | .16996          |
| BR | Early | 294 | 5.6803 | 1.21435        | .07082          |
|    | Late  | 33  | 5.5606 | 1.10402        | .19219          |
| BL | Early | 294 | 4.8571 | 1.36609        | .07967          |
|    | Late  | 33  | 4.9576 | 1.06273        | .18500          |

## Appendix I: Independent Sample t-test

| Independent Samples Test |   |      |                              |        |                 |                 |                       |   |        |
|--------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|
|                          | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |   |        |
|                          | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|                          |   |      |                              |        |                 |                 |                       | Lower                                     | Upper  |
| UV                       | 1.210                                   | .272 | .555                         | 325    | .579            | .13278          | .23916                | -.33771                                   | .60327 |
|                          |   |      | .633                         | 42.633 | .530            | .13278          | .20985                | -.29053                                   | .55608 |
| HV                       | .097                                    | .755 | 1.358                        | 325    | .175            | .32245          | .23738                | -.14456                                   | .78945 |
|                          |   |      | 1.234                        | 37.871 | .225            | .32245          | .26123                | -.20644                                   | .85134 |
| BS                       | .131                                    | .718 | .610                         | 325    | .542            | .11448          | .18759                | -.25456                                   | .48352 |
|                          |   |      | .620                         | 39.842 | .539            | .11448          | .18472                | -.25890                                   | .48785 |
| EA                       | .665                                    | .415 | -.809                        | 325    | .419            | -.22369         | .27653                | -.76771                                   | .32034 |
|                          |   |      | -.925                        | 42.746 | .360            | -.22369         | .24170                | -.71119                                   | .26382 |
| BT                       | .009                                    | .924 | .539                         | 325    | .590            | .10571          | .19614                | -.28016                                   | .49158 |
|                          |   |      | .583                         | 41.272 | .563            | .10571          | .18121                | -.26018                                   | .47160 |

|    |                                   |       |      |       |        |      |         |        |         |        |
|----|-----------------------------------|-------|------|-------|--------|------|---------|--------|---------|--------|
| BR | Equal<br>variances<br>assumed     | .288  | .592 | .541  | 325    | .589 | .11967  | .22103 | -.31516 | .55449 |
|    | Equal<br>variances<br>not assumed |       |      | .584  | 41.198 | .562 | .11967  | .20482 | -.29392 | .53325 |
| BL | Equal<br>variances<br>assumed     | 2.576 | .109 | -.408 | 325    | .683 | -.10043 | .24587 | -.58414 | .38327 |
|    | Equal<br>variances<br>not assumed |       |      | -.499 | 44.803 | .620 | -.10043 | .20142 | -.50617 | .30531 |



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## Appendix J: Common Method Variance Output

| Total Variance Explained |                     |               |              |                                     |               |              |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component                | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|                          | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1                        | 17.140              | 41.806        | 41.806       | 17.140                              | 41.806        | 41.806       |
| 2                        | 5.511               | 13.442        | 55.247       | 5.511                               | 13.442        | 55.247       |
| 3                        | 2.743               | 6.690         | 61.938       | 2.743                               | 6.690         | 61.938       |
| 4                        | 2.346               | 5.721         | 67.658       | 2.346                               | 5.721         | 67.658       |
| 5                        | 1.522               | 3.711         | 71.370       | 1.522                               | 3.711         | 71.370       |
| 6                        | 1.258               | 3.068         | 74.438       | 1.258                               | 3.068         | 74.438       |
| 7                        | .941                | 2.295         | 76.733       |                                     |               |              |
| 8                        | .909                | 2.216         | 78.950       |                                     |               |              |
| 9                        | .715                | 1.743         | 80.693       |                                     |               |              |
| 10                       | .637                | 1.554         | 82.247       |                                     |               |              |
| 11                       | .560                | 1.365         | 83.612       |                                     |               |              |
| 12                       | .487                | 1.187         | 84.799       |                                     |               |              |
| 13                       | .447                | 1.091         | 85.891       |                                     |               |              |
| 14                       | .382                | .932          | 86.823       |                                     |               |              |
| 15                       | .364                | .889          | 87.712       |                                     |               |              |
| 16                       | .340                | .830          | 88.542       |                                     |               |              |
| 17                       | .329                | .803          | 89.345       |                                     |               |              |
| 18                       | .318                | .775          | 90.120       |                                     |               |              |
| 19                       | .296                | .721          | 90.841       |                                     |               |              |
| 20                       | .289                | .705          | 91.547       |                                     |               |              |
| 21                       | .276                | .674          | 92.220       |                                     |               |              |
| 22                       | .256                | .626          | 92.846       |                                     |               |              |
| 23                       | .253                | .618          | 93.463       |                                     |               |              |
| 24                       | .234                | .572          | 94.035       |                                     |               |              |
| 25                       | .209                | .511          | 94.546       |                                     |               |              |
| 26                       | .208                | .508          | 95.054       |                                     |               |              |
| 27                       | .203                | .495          | 95.549       |                                     |               |              |
| 28                       | .191                | .466          | 96.014       |                                     |               |              |
| 29                       | .184                | .450          | 96.464       |                                     |               |              |
| 30                       | .175                | .427          | 96.891       |                                     |               |              |
| 31                       | .156                | .380          | 97.271       |                                     |               |              |
| 32                       | .156                | .380          | 97.651       |                                     |               |              |
| 33                       | .134                | .327          | 97.977       |                                     |               |              |
| 34                       | .127                | .309          | 98.286       |                                     |               |              |

|    |      |      |         |  |  |
|----|------|------|---------|--|--|
| 35 | .125 | .305 | 98.592  |  |  |
| 36 | .118 | .287 | 98.879  |  |  |
| 37 | .112 | .274 | 99.153  |  |  |
| 38 | .108 | .263 | 99.416  |  |  |
| 39 | .087 | .212 | 99.628  |  |  |
| 40 | .077 | .187 | 99.816  |  |  |
| 41 | .076 | .184 | 100.000 |  |  |

Extraction Method: Principal Component Analysis.



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## Appendix K: Frequencies Output

| Brand |            |         |               |                    |
|-------|------------|---------|---------------|--------------------|
|       | Frequency  | Percent | Valid Percent | Cumulative Percent |
| Valid | Apple      | 55      | 16.8          | 16.8               |
|       | Samsung    | 115     | 35.2          | 52.0               |
|       | Nokia      | 20      | 6.1           | 58.1               |
|       | HTC        | 9       | 2.8           | 60.9               |
|       | Blackberry | 7       | 2.1           | 63.0               |
|       | Sony       | 17      | 5.2           | 68.2               |
|       | Motorola   | 2       | .6            | 68.8               |
|       | LG         | 4       | 1.2           | 70.0               |
|       | Lenovo     | 33      | 10.1          | 80.1               |
|       | Asus       | 14      | 4.3           | 84.4               |
|       | Huawei     | 6       | 1.8           | 86.2               |
|       | Oppo       | 14      | 4.3           | 90.5               |
|       | Acer       | 4       | 1.2           | 91.7               |
|       | Xiaomi     | 20      | 6.1           | 97.9               |
|       | Others     | 7       | 2.1           | 100.0              |
|       | Total      | 327     | 100.0         | 100.0              |

| Gender |           |         |               |                    |
|--------|-----------|---------|---------------|--------------------|
|        | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid  | Male      | 133     | 40.7          | 40.7               |
|        | Female    | 194     | 59.3          | 100.0              |
|        | Total     | 327     | 100.0         | 100.0              |

**Ethnicity**

|         | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-----------|---------|---------------|--------------------|
| Malay   | 146       | 44.6    | 44.6          | 44.6               |
| Chinese | 83        | 25.4    | 25.4          | 70.0               |
| Indian  | 95        | 29.1    | 29.1          | 99.1               |
| Others  | 3         | .9      | .9            | 100.0              |
| Total   | 327       | 100.0   | 100.0         |                    |

**Age**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| <20   | 6         | 1.8     | 1.8           | 1.8                |
| 21-30 | 149       | 45.6    | 45.6          | 47.4               |
| 31-40 | 110       | 33.6    | 33.6          | 81.0               |
| 41-50 | 40        | 12.2    | 12.2          | 93.3               |
| 51-60 | 19        | 5.8     | 5.8           | 99.1               |
| >60   | 3         | .9      | .9            | 100.0              |
| Total | 327       | 100.0   | 100.0         |                    |

**Marital**

|         | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-----------|---------|---------------|--------------------|
| Single  | 144       | 44.0    | 44.0          | 44.0               |
| Married | 183       | 56.0    | 56.0          | 100.0              |
| Total   | 327       | 100.0   | 100.0         |                    |

**Education**

|             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Primary     | 2         | .6      | .6            | .6                 |
| Secondary   | 48        | 14.7    | 14.7          | 15.3               |
| College     | 100       | 30.6    | 30.6          | 45.9               |
| Degree      | 148       | 45.3    | 45.3          | 91.1               |
| Post Degree | 29        | 8.9     | 8.9           | 100.0              |
| Total       | 327       | 100.0   | 100.0         |                    |



### Occupation

|               | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------|-----------|---------|---------------|--------------------|
| Valid Student | 13        | 4.0     | 4.0           | 4.0                |
| Employee      | 284       | 86.9    | 86.9          | 90.8               |
| Self Employed | 18        | 5.5     | 5.5           | 96.3               |
| Unemployed    | 5         | 1.5     | 1.5           | 97.9               |
| Housewife     | 7         | 2.1     | 2.1           | 100.0              |
| Total         | 327       | 100.0   | 100.0         |                    |

### Income

|             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid <1000 | 22        | 6.7     | 6.7           | 6.7                |
| 1001-3000   | 107       | 32.7    | 32.7          | 39.4               |
| 3001-5000   | 132       | 40.4    | 40.4          | 79.8               |
| 5001-7000   | 36        | 11.0    | 11.0          | 90.8               |
| 7001-9000   | 12        | 3.7     | 3.7           | 94.5               |
| 9001-11000  | 2         | .6      | .6            | 95.1               |
| >11001      | 2         | .6      | .6            | 95.7               |
| No income   | 14        | 4.3     | 4.3           | 100.0              |
| Total       | 327       | 100.0   | 100.0         |                    |

## Appendix L: Descriptive Statistics

| Descriptive Statistics |     |         |         |        |                |
|------------------------|-----|---------|---------|--------|----------------|
|                        | N   | Minimum | Maximum | Mean   | Std. Deviation |
| UV                     | 327 | 1.00    | 7.00    | 5.3982 | 1.30130        |
| HV                     | 327 | 1.00    | 7.00    | 5.2232 | 1.29471        |
| BS                     | 327 | 1.22    | 7.00    | 5.2847 | 1.02081        |
| EA                     | 327 | 1.00    | 7.00    | 4.3443 | 1.50548        |
| BT                     | 327 | 1.00    | 7.00    | 4.9132 | 1.06722        |
| BR                     | 327 | 1.00    | 7.00    | 5.6682 | 1.20263        |
| BL                     | 327 | 1.00    | 7.00    | 4.8673 | 1.33756        |
| Valid N (listwise)     | 327 |         |         |        |                |



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## Appendix M

### Outer Loadings

|     | Brand Loyalty | Brand Reputation | Brand Satisfaction | Brand Trust | Emotional Attachment | Hedonic Value | Utilitarian Value |
|-----|---------------|------------------|--------------------|-------------|----------------------|---------------|-------------------|
| BL1 | 0.870         |                  |                    |             |                      |               |                   |
| BL2 | 0.914         |                  |                    |             |                      |               |                   |
| BL3 | 0.877         |                  |                    |             |                      |               |                   |
| BL4 | 0.863         |                  |                    |             |                      |               |                   |
| BL5 | 0.852         |                  |                    |             |                      |               |                   |
| BR1 |               | 0.913            |                    |             |                      |               |                   |
| BR2 |               | 0.945            |                    |             |                      |               |                   |
| BR3 |               | 0.916            |                    |             |                      |               |                   |
| BR4 |               | 0.922            |                    |             |                      |               |                   |
| BS1 |               |                  | 0.745              |             |                      |               |                   |
| BS2 |               |                  | 0.836              |             |                      |               |                   |
| BS3 |               |                  | 0.832              |             |                      |               |                   |
| BS4 |               |                  | 0.862              |             |                      |               |                   |
| BS5 |               |                  | 0.850              |             |                      |               |                   |
| BS6 |               |                  | 0.684              |             |                      |               |                   |
| BS7 |               |                  | 0.857              |             |                      |               |                   |
| BS8 |               |                  | 0.839              |             |                      |               |                   |
| BS9 |               |                  | 0.839              |             |                      |               |                   |
| BT1 |               |                  |                    | 0.821       |                      |               |                   |
| BT2 |               |                  |                    | 0.853       |                      |               |                   |
| BT3 |               |                  |                    | 0.854       |                      |               |                   |
| BT4 |               |                  |                    | 0.879       |                      |               |                   |
| BT5 |               |                  |                    | 0.847       |                      |               |                   |
| BT6 |               |                  |                    | 0.850       |                      |               |                   |
| BT7 |               |                  |                    | 0.869       |                      |               |                   |
| BT8 |               |                  |                    | 0.812       |                      |               |                   |
| EA1 |               |                  |                    |             | 0.867                |               |                   |
| EA2 |               |                  |                    |             | 0.912                |               |                   |
| EA3 |               |                  |                    |             | 0.893                |               |                   |
| EA4 |               |                  |                    |             | 0.914                |               |                   |
| EA5 |               |                  |                    |             | 0.920                |               |                   |
| HV1 |               |                  |                    |             |                      | 0.825         |                   |
| HV2 |               |                  |                    |             |                      | 0.915         |                   |
| HV3 |               |                  |                    |             |                      | 0.888         |                   |
| HV4 |               |                  |                    |             |                      | 0.901         |                   |
| HV5 |               |                  |                    |             |                      | 0.891         |                   |
| UV1 |               |                  |                    |             |                      |               | 0.724             |
| UV2 |               |                  |                    |             |                      |               | 0.871             |
| UV3 |               |                  |                    |             |                      |               | 0.882             |
| UV4 |               |                  |                    |             |                      |               | 0.843             |
| UV5 |               |                  |                    |             |                      |               | 0.909             |

## Appendix N

### Construct Reliability and Validity

|                      | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|----------------------|------------------|-------|-----------------------|----------------------------------|
| Brand Loyalty        | 0.924            | 0.928 | 0.943                 | 0.767                            |
| Brand Reputation     | 0.943            | 0.943 | 0.959                 | 0.854                            |
| Brand Satisfaction   | 0.937            | 0.940 | 0.948                 | 0.669                            |
| Brand Trust          | 0.944            | 0.945 | 0.954                 | 0.720                            |
| Emotional Attachment | 0.942            | 0.943 | 0.956                 | 0.812                            |
| Hedonic Value        | 0.930            | 0.937 | 0.947                 | 0.782                            |
| Utilitarian Value    | 0.901            | 0.909 | 0.927                 | 0.719                            |



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## Appendix O

### Cross Loadings

|     | Brand Loyalty | Brand Reputation | Brand Satisfaction | Brand Trust | Emotional Attachment | Hedonic Value | Utilitarian Value |
|-----|---------------|------------------|--------------------|-------------|----------------------|---------------|-------------------|
| BL1 | 0.870         | 0.571            | 0.465              | 0.587       | 0.637                | 0.205         | 0.185             |
| BL2 | 0.914         | 0.612            | 0.507              | 0.613       | 0.649                | 0.215         | 0.219             |
| BL3 | 0.877         | 0.481            | 0.405              | 0.549       | 0.596                | 0.186         | 0.167             |
| BL4 | 0.863         | 0.577            | 0.454              | 0.492       | 0.459                | 0.193         | 0.172             |
| BL5 | 0.852         | 0.499            | 0.378              | 0.494       | 0.486                | 0.189         | 0.174             |
| BR1 | 0.571         | 0.913            | 0.432              | 0.441       | 0.342                | 0.232         | 0.286             |
| BR2 | 0.573         | 0.945            | 0.528              | 0.529       | 0.428                | 0.296         | 0.320             |
| BR3 | 0.595         | 0.916            | 0.549              | 0.576       | 0.431                | 0.298         | 0.339             |
| BR4 | 0.585         | 0.922            | 0.475              | 0.486       | 0.399                | 0.207         | 0.298             |
| BS1 | 0.378         | 0.491            | 0.745              | 0.580       | 0.305                | 0.396         | 0.367             |
| BS2 | 0.327         | 0.398            | 0.836              | 0.573       | 0.290                | 0.432         | 0.407             |
| BS3 | 0.368         | 0.484            | 0.832              | 0.614       | 0.390                | 0.426         | 0.382             |
| BS4 | 0.396         | 0.467            | 0.862              | 0.592       | 0.322                | 0.383         | 0.350             |
| BS5 | 0.428         | 0.492            | 0.850              | 0.620       | 0.352                | 0.387         | 0.360             |
| BS6 | 0.466         | 0.315            | 0.684              | 0.511       | 0.573                | 0.285         | 0.191             |
| BS7 | 0.456         | 0.430            | 0.857              | 0.590       | 0.378                | 0.359         | 0.285             |
| BS8 | 0.456         | 0.405            | 0.839              | 0.630       | 0.432                | 0.371         | 0.313             |
| BS9 | 0.479         | 0.455            | 0.839              | 0.641       | 0.457                | 0.336         | 0.274             |
| BT1 | 0.524         | 0.498            | 0.626              | 0.821       | 0.481                | 0.296         | 0.307             |
| BT2 | 0.568         | 0.542            | 0.658              | 0.853       | 0.488                | 0.260         | 0.268             |
| BT3 | 0.520         | 0.430            | 0.642              | 0.854       | 0.515                | 0.318         | 0.250             |
| BT4 | 0.538         | 0.470            | 0.633              | 0.879       | 0.537                | 0.307         | 0.248             |
| BT5 | 0.502         | 0.394            | 0.623              | 0.847       | 0.571                | 0.264         | 0.207             |
| BT6 | 0.553         | 0.460            | 0.582              | 0.850       | 0.554                | 0.245         | 0.222             |
| BT7 | 0.566         | 0.508            | 0.625              | 0.869       | 0.562                | 0.256         | 0.245             |
| BT8 | 0.485         | 0.428            | 0.551              | 0.812       | 0.522                | 0.232         | 0.207             |
| EA1 | 0.584         | 0.390            | 0.444              | 0.550       | 0.867                | 0.226         | 0.155             |
| EA2 | 0.597         | 0.411            | 0.456              | 0.547       | 0.912                | 0.202         | 0.129             |
| EA3 | 0.596         | 0.430            | 0.448              | 0.580       | 0.893                | 0.253         | 0.155             |
| EA4 | 0.579         | 0.379            | 0.399              | 0.555       | 0.914                | 0.222         | 0.132             |
| EA5 | 0.571         | 0.339            | 0.368              | 0.573       | 0.920                | 0.166         | 0.077             |
| HV1 | 0.219         | 0.223            | 0.341              | 0.216       | 0.177                | 0.825         | 0.680             |
| HV2 | 0.201         | 0.256            | 0.402              | 0.289       | 0.223                | 0.915         | 0.689             |
| HV3 | 0.163         | 0.260            | 0.475              | 0.347       | 0.202                | 0.888         | 0.645             |
| HV4 | 0.193         | 0.279            | 0.421              | 0.307       | 0.239                | 0.901         | 0.670             |
| HV5 | 0.236         | 0.212            | 0.382              | 0.242       | 0.206                | 0.891         | 0.634             |
| UV1 | 0.274         | 0.322            | 0.343              | 0.236       | 0.141                | 0.559         | 0.724             |
| UV2 | 0.113         | 0.235            | 0.329              | 0.210       | 0.108                | 0.641         | 0.871             |
| UV3 | 0.177         | 0.278            | 0.338              | 0.253       | 0.133                | 0.677         | 0.882             |
| UV4 | 0.101         | 0.204            | 0.274              | 0.234       | 0.079                | 0.606         | 0.843             |
| UV5 | 0.202         | 0.356            | 0.393              | 0.280       | 0.137                | 0.675         | 0.909             |

## Appendix P

Fornell-Larcker Criterion

|                      | Brand Loyalty | Brand Reputation | Brand Satisfaction | Brand Trust | Emotional Attachment | Hedonic Value | Utilitarian Value |
|----------------------|---------------|------------------|--------------------|-------------|----------------------|---------------|-------------------|
| Brand Loyalty        | 0.876         |                  |                    |             |                      |               |                   |
| Brand Reputation     | 0.629         | 0.924            |                    |             |                      |               |                   |
| Brand Satisfaction   | 0.508         | 0.537            | 0.818              |             |                      |               |                   |
| Brand Trust          | 0.628         | 0.550            | 0.729              | 0.848       |                      |               |                   |
| Emotional Attachment | 0.650         | 0.433            | 0.470              | 0.623       | 0.901                |               |                   |
| Hedonic Value        | 0.226         | 0.280            | 0.461              | 0.321       | 0.238                | 0.884         |                   |
| Utilitarian Value    | 0.211         | 0.337            | 0.402              | 0.288       | 0.144                | 0.748         | 0.848             |



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## Appendix Q

Heterotrait-Monotrait Ratio (HTMT)

|                      | Brand Loyalty | Brand Reputation | Brand Satisfaction | Brand Trust | Emotional Attachment | Hedonic Value | Utilitarian Value |
|----------------------|---------------|------------------|--------------------|-------------|----------------------|---------------|-------------------|
| Brand Loyalty        |               |                  |                    |             |                      |               |                   |
| Brand Reputation     | 0.671         |                  |                    |             |                      |               |                   |
| Brand Satisfaction   | 0.546         | 0.569            |                    |             |                      |               |                   |
| Brand Trust          | 0.668         | 0.582            | 0.774              |             |                      |               |                   |
| Emotional Attachment | 0.692         | 0.459            | 0.506              | 0.660       |                      |               |                   |
| Hedonic Value        | 0.246         | 0.297            | 0.488              | 0.338       | 0.252                |               |                   |
| Utilitarian Value    | 0.223         | 0.357            | 0.428              | 0.310       | 0.153                | 0.818         |                   |



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## Appendix R

Mean, STDEV, T-Values, P-Values

|   | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values |
|---|---------------------|-----------------|----------------------------|--------------------------|----------|
| Brand Reputation -> Brand Loyalty             | 0.430               | 0.419           | 0.068                      | 6.358                    | 0.000    |
| Brand Reputation*Brand Trust -> Brand Loyalty | 0.072               | 0.060           | 0.040                      | 1.810                    | 0.035    |
| Brand Satisfaction -> Brand Trust             | 0.559               | 0.561           | 0.059                      | 9.451                    | 0.000    |
| Brand Trust -> Brand Loyalty                  | 0.421               | 0.424           | 0.060                      | 7.050                    | 0.000    |
| Emotional Attachment -> Brand Trust           | 0.361               | 0.360           | 0.052                      | 6.935                    | 0.000    |
| Hedonic Value -> Brand Satisfaction           | 0.365               | 0.365           | 0.090                      | 4.070                    | 0.000    |
| Hedonic Value -> Emotional Attachment         | 0.295               | 0.300           | 0.089                      | 3.330                    | 0.000    |
| Utilitarian Value -> Brand Satisfaction       | 0.129               | 0.133           | 0.089                      | 1.447                    | 0.074    |
| Utilitarian Value -> Emotional Attachment     | -0.077              | -0.075          | 0.092                      | 0.833                    | 0.203    |



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## Appendix S

### R Square

|                         | Original<br>Sample (O) | Sample<br>Mean (M) | Standard<br>Deviation<br>(STDEV) | T Statistics<br>( O/STDEV ) | P Values |
|-------------------------|------------------------|--------------------|----------------------------------|-----------------------------|----------|
| Brand Loyalty           | 0.517                  | 0.523              | 0.043                            | 11.911                      | 0.000    |
| Brand<br>Satisfaction   | 0.220                  | 0.232              | 0.065                            | 3.381                       | 0.000    |
| Brand Trust             | 0.632                  | 0.639              | 0.042                            | 15.089                      | 0.000    |
| Emotional<br>Attachment | 0.059                  | 0.070              | 0.032                            | 1.822                       | 0.034    |



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## Appendix T

f Square

|   | Original<br>Sample<br>(O) | Sample<br>Mean<br>(M) | Standard<br>Deviation<br>(STDEV) | T Statistics<br>( O/STDEV ) | P Values |
|---|---------------------------|-----------------------|----------------------------------|-----------------------------|----------|
| Brand Reputation*Brand Trust -<br>> Brand Loyalty | 0.015                     | 0.015                 | 0.018                            | 0.834                       | 0.202    |
| Brand Satisfaction -> Brand<br>Trust              | 0.663                     | 0.702                 | 0.208                            | 3.190                       | 0.001    |
| Brand Trust -> Brand Loyalty                      | 0.249                     | 0.262                 | 0.080                            | 3.095                       | 0.001    |
| Emotional Attachment -> Brand<br>Trust            | 0.276                     | 0.284                 | 0.074                            | 3.705                       | 0.000    |
| Hedonic Value -> Brand<br>Satisfaction            | 0.075                     | 0.083                 | 0.044                            | 1.705                       | 0.044    |
| Hedonic Value -> Emotional<br>Attachment          | 0.041                     | 0.047                 | 0.027                            | 1.485                       | 0.069    |
| Utilitarian Value -> Brand<br>Satisfaction        | 0.009                     | 0.015                 | 0.017                            | 0.564                       | 0.286    |
| Utilitarian Value -> Emotional<br>Attachment      | 0.003                     | 0.007                 | 0.008                            | 0.339                       | 0.367    |



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## Appendix U

### Construct Crossvalidated Redundancy

|                              | SSO        | SSE        | Q <sup>2</sup> (=1-SSE/SSO) |
|------------------------------|------------|------------|-----------------------------|
| Brand Loyalty                | 1,635.000  | 997.523    | 0.390                       |
| Brand Reputation             | 1,308.000  | 1,308.000  |                             |
| Brand Reputation*Brand Trust | 10,464.000 | 10,464.000 |                             |
| Brand Satisfaction           | 2,943.000  | 2,518.228  | 0.144                       |
| Brand Trust                  | 2,616.000  | 1,429.962  | 0.453                       |
| Emotional Attachment         | 1,635.000  | 1,562.124  | 0.045                       |
| Hedonic Value                | 1,635.000  | 1,635.000  |                             |
| Utilitarian Value            | 1,635.000  | 1,635.000  |                             |



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