

A STUDY OF BRAND LOYALTY OF APPLE  
PRODUCTS IN MALAYSIA

LEW YOKE PENG

BACHELOR OF INTERNATIONAL BUSINESS  
(HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT  
DEPARTMENT OF INTERNATIONAL BUSINESS

APRIL 2022

A STUDY OF BRAND LOYALTY OF APPLE  
PRODUCTS IN MALAYSIA

BY

LEW YOKE PENG

A final year project submitted in partial fulfillment of the  
requirement for the degree of

BACHELOR OF INTERNATIONAL BUSINESS  
(HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT  
DEPARTMENT OF INTERNATIONAL BUSINESS

APRIL 2022

Copyright @2022

ALL RIGHT RESERVED. No part of this paper may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, graphic, electronic, mechanical, photocopying, recording, scanning, or otherwise without the prior consent of the authors.

## DECLARATION

I hereby declare that:

- (1) This undergraduate FYP is the end result of my own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Sole contribution has been made by me in completing the FYP.
- (4) The word count of this research report is 121125.

Name of student

Student ID

Signature

Lew Yoke Peng

18UKB05176



Date: 20/04/2022

## **ACKNOWLEDGEMENT**

I am grateful to many people for their kindness and assistance while I was working on my Final Year Project (FYP). Therefore, I would like to take this great opportunity to convey my deepest and sincere appreciation to these individuals.

First and foremost, I wish to express my appreciation to my research projection's supervisor and my academic advisor, Dr. Lim Chee Seong for his enthusiastic support and valuable suggestions. Without his valuable suggestions, my research would not have been completed successfully, and he had been my inspiration and motivation during this period.

Secondly, I would like to thank to Dr. Low Mei Peng which is my lecture of Business Research for her kind help and constructive comments on the basic knowledge on conducting the research project.

Besides, I am also grateful to my second examiner, Dr. Elia Syarafina Abdul Shakur for her advice on how to improve my research study. Last but not least, I would like to thank all of my family and friends for their support and help throughout the journey. My grateful appreciation extends to Universiti Tunku Abdul Rahman (UTAR) which offer infrastructures and facilities to conduct this research.

## **DEDICATION**

This paper is dedicated to Universiti Tunku Abdul Rahman (UTAR) for offering us a platform and opportunity to improve and apply the knowledge we had learned in the past few years.

I would like to dedicate this research to Dr. Lim Chee Seong, my research project of Final Year Project (FYP) supervisor. He showed great support and encouragement during the process when I am completing this research project. Dr. Lim also shared the knowledge on doing research project with me Without his guidance, I may not be able to complete this research project in time.

Furthermore, I would like to dedicate to second examiner, Dr. Elia Syarafina Abdul Shakur. She has given me valuable suggestion and advice which is helpful for me in making enhancement on this research project.

Additionally, this research project is also dedicated to my family and friends as an appreciation for their help towards my research project. Last but not least, I would like to dedicate this research project to the future researchers in aiding them to conduct their research in the future.

**TABLE OF CONTENTS**

Copyright page..... i  
Declaration..... ii  
Acknowledgement ..... iii  
Dedication..... iv  
Table of contents.....v  
List of Tables ..... xi  
List of Figures ..... xiii  
List of Abbreviations .....xiv  
List of Appendices .....xv  
Preface..... xvi  
Abstract..... xvii

**CHAPTER 1: RESEARCH OVERVIEW .....1**

1.0 Introduction.....1  
1.1 Research Background .....1  
    1.1.1 Consumer Electronic Industry .....1  
1.2 Problem Statement .....5  
    1.2.1 Research Gap .....7  
1.3 Research Objective .....9  
    1.3.1 General Objective .....9  
1.4 Research Questions .....10  
1.5 Significance of Study .....11

**CHAPTER 2: LITERATURE REVIEW .....12**

2.0 Introduction.....12  
2.1 Customer-Based Brand Equity .....12  
2.2 Review of Literature .....13  
    2.2.1 Brand Loyalty .....13  
2.3 Independent Variable .....14

2.3.1 Brand Awareness .....	14
2.3.2 Perceived Quality .....	15
2.3.3 Perceived Value .....	16
2.3.4 Brand Personality .....	17
2.3.5 Brand Association .....	18
2.3.6 Brand Uniqueness .....	19
2.4 Conceptual Framework .....	20
2.5 Hypothesis Development .....	21
2.5.1 Brand Awareness .....	21
2.5.2 Perceived Quality .....	21
2.5.3 Perceived Value .....	22
2.5.4 Brand Personality .....	23
2.5.5 Brand Association .....	23
2.5.6 Brand Uniqueness .....	24
2.6 Conclusion .....	25
<b>CHAPTER 3: METHODOLOGY .....</b>	<b>26</b>
3.0 Introduction .....	27
3.1 Research Design .....	25
3.2 Data Collection Method .....	26
3.2.1 Primary Data .....	27
3.2.2 Secondary Data .....	28
3.3 Sampling Design .....	29
3.3.1 Target Population .....	29
3.3.2 Sampling Frame and Location .....	30
3.3.3 Sampling Elements .....	30
3.3.4 Sampling Size .....	31
3.3.5 Sampling Technique .....	31
3.4 Research Instrument .....	32
3.4.1 Questionnaire Design .....	32
3.4.2 Pilot Test .....	33
3.5 Construct Measurement .....	34



3.5.1 Scale of Measurement .....	37
3.5.2 Nominal Scale .....	37
3.5.3 Interval Scale .....	38
3.5.4 Likert Scale .....	38
3.6 Data Processing .....	39
3.6.1 Questionnaire Checking .....	39
3.6.2 Data Editing .....	40
3.6.3 Data Coding .....	40
3.7 Data Analysis .....	40
3.7.1 Descriptive Analysis .....	41
3.7.1.1 Reliability Test .....	41
3.7.1.2 Cronbach's Alpha .....	42
3.7.2 Inferential Analysis .....	42
3.7.2.1 Multiple Linear Regression .....	43
3.8 Conclusion .....	44
<b>CHAPTER 4: DATA ANALYSIS .....</b>	<b>45</b>
4.0 Introduction.....	45
4.1 Descriptive Analysis .....	45
4.1.1 Respondents' Demographic .....	46
4.1.1.1 Gender.....	46
4.1.1.2 Age Group.....	47
4.1.1.3 Current Employment Status .....	49
4.1.1.4 Income per Month (RM) .....	50
4.2 Central Tendency .....	52
4.3 Scale Measurement .....	59
4.3.1 Reliability Test .....	60
4.4 Inferential Analysis .....	60
4.4.1 Multiple Linear Regression .....	60
4.4.2 Hypothesis Testing .....	64

<b>CHAPTER 5: DISCUSSION, IMPLICATION AND CONCLUSION ....</b>	<b>65</b>
5.0 Introduction .....	65
5.1 Summary of Statistical Analysis .....	65
5.2 Discussion of Major Findings .....	67
5.2.1 Relationship between Brand Awareness and Brand Loyalty of Apple Product Users .....	67
5.2.2 Relationship between Perceived Quality and Brand Loyalty of Apple Product Users .....	67
5.2.3 Relationship between Perceived Value and Brand Loyalty of Apple Product Users .....	68
5.2.4 Relationship between Brand Personality and Brand Loyalty of Apple Product Users .....	69
5.2.5 Relationship between Brand Association and Brand Loyalty of Apple Product Users .....	69
5.2.6 Relationship between Brand Uniqueness and Brand Loyalty of Apple Product Users .....	70
5.3 Implications of Study .....	71
5.3.1 Managerial Implication .....	71
5.4 Limitations and Recommendation of the study .....	72
5.5 Conclusion .....	73
REFERENCES .....	74
APPENDICES .....	82

**LIST OF TABLES**

	Page
Table 1.1: Past Studies Identifying Research Gaps .....	8
Table 3.1: Cronbach’s Alpha of Pilot Test .....	34
Table 3.2: Origin of Construct .....	35
Table 3.3: Range of Cronbach’s Alpha value .....	42
Table 4.1: Statistics of Respondents’ Gender .....	46
Table 4.2: Statistics of Respondents’ Age .....	47
Table 4.3 Statistics of Respondents’ Current Status Group.....	49
Table 4.4: Statistics of Respondents’ Monthly Income .....	50
Table 4.5: Central Tendencies Measurement for Brand Loyalty .....	52
Table 4.6: Central Tendencies Measurement for Brand Awareness.....	53
Table 4.7: Central Tendencies Measurement for Perceived Quality .....	54
Table 4.8: Central Tendencies Measurement for Perceived Value.....	55
Table 4.9: Central Tendencies Measurement for Brand Personality .....	56
Table 4.10: Central Tendencies Measurement for Brand Associations.....	57
Table 4.11: Central Tendencies Measurement for Brand Uniqueness .....	58
Table 4.12: Overall Central Tendencies Measurement for All Variables .....	59
Table 4.13: Summary of Reliability Test.....	59
Table 4.14: Model Summary .....	60

Table 4.15: ANOVA.....61

Table 4.16: Coefficients.....62

## LIST OF FIGURES

	Page
Figure 3.1: Example of Nominal Scale .....	37
Figure 3.2: Example of Likert Scale .....	39
Figure 3.3: Equation of Multiple Regression .....	43
Figure 3.4: Equation of Multiple Linear Regression .....	44
Figure 4.1: Statistics of Respondents' Gender.....	45
Figure 4.2: Statistics of Respondents' Age.....	48
Figure 4.3 Statistics of Respondents' Current Status Group .....	49
Figure 4.4: Statistics of Respondents' Monthly Income.....	50

## **LIST OF ABBREVIATIONS**

- R Multiple Regression
- R<sup>2</sup> Multiple coefficients of determination/ R square
- SPSS. Statistical Package for Social Sciences

**LIST OF APPENDICES**

	Page
Appendix A: Questionnaire .....	85
Appendix B: SPSS .....	89

## **PREFACE**

The current research project that is completed by me which constituted as a fulfillment of the requirement in pursuing the course of Bachelor of International Business (Hons). I had proposed “A study of brand loyalty of Apple product users in Malaysia” as my topic of research project. In this research, I had outlined few variables which the independent variables are brand awareness, perceived quality, perceived value, brand personality, brand associations, and brand uniqueness while the variable is brand loyalty.

This research would contribute to provide insights for the international marketers and brand managers in term of understanding the main factors that influence the brand loyalty of Apple product users in Malaysia. Therefore, the international marketers and brand managers are able to gain more knowledge and insights in maintaining brand loyalty of the company in Malaysia.



## **ABSTRACT**

The main objective of conducting this research project is to investigate the factors that affect consumer brand loyalty to Apple products in Malaysia. Thus, there have various variables were examined such as brand awareness, perceived quality, perceived value, brand personality, brand associations, and brand uniqueness will bring impact on consumer brand loyalty to Apple product users. Quantitative method approach is used, and 200 survey questionnaires are distributed to Malaysian who are Apple product users by using convenient sampling technique. All 200 survey are softcopy and distributed to target respondents through Google form.

By using Statistical Package for Social Science (SPSS), data that collected from the survey questionnaire are able to analyze. The results acquired from the SPSS shows that there is significant relationship between all independent variable towards the dependent variable. However, the variables which are perceived quality and brand association shown insignificant relationship towards the brand loyalty of Apple product users. The research also mentioned about the limitations during the progress of research project and recommendation are offered for the future researchers.

## **CHAPTER 1: RESEARCH OVERVIEW**

### **1.0 Introduction**

The research background and problem statement will be covered by this chapter, following by research questions, research objectives and justification or significance of the research. The research aims to examine how brand awareness, perceived quality, perceived value, brand personality, brand associations, and brand uniqueness influence the consumer's brand loyalty to Apple products in Malaysia.

### **1.1 Research Background**

#### **1.1.1 Consumer Electronic Industry**

Consumer electronics refers to a wide range of home electronic devices, such as audio systems, home automation, home computing, and low-power electronics, as well as multimedia systems, that are designed to perform or assist in data processing and transmission through digital methods, which include transmission and display (Li, Zeng & Stevels, 2015). Besides, the electronic industry has grown to be the world's largest and most prosperous industry with the rapid advancement of modern consumer electronics, namely smartphones, laptops, and tablets (Li, Zeng, & Stevels, 2015).

According to Vailshery (2021), the consumer technology expenditure is expected to reach 461 billion U.S. dollars, over 40 billion U.S. dollars higher than the forecast value for 2020 as shown in Figure 1.1 below. Likewise, the sales of the electrical and electronic sector in Malaysia increased in value from 2014 to 2018, contributing 290 billion Malaysian Ringgit in 2018 (Figure 1.2) (Muller, 2021). The reason for the increased demand for consumer electronics is that individuals spent more time at home for enhanced comfort and safety through smart gadgets during the pandemic of COVID-19 (Consumer Electronics, 2021). For example, due to the pandemic of COVID-19, the demand for consumer electronic products had increased, especially laptops during the work from home period, resulting in an increase in the sales of electronic products in Malaysia (Hisamudin, 2020).

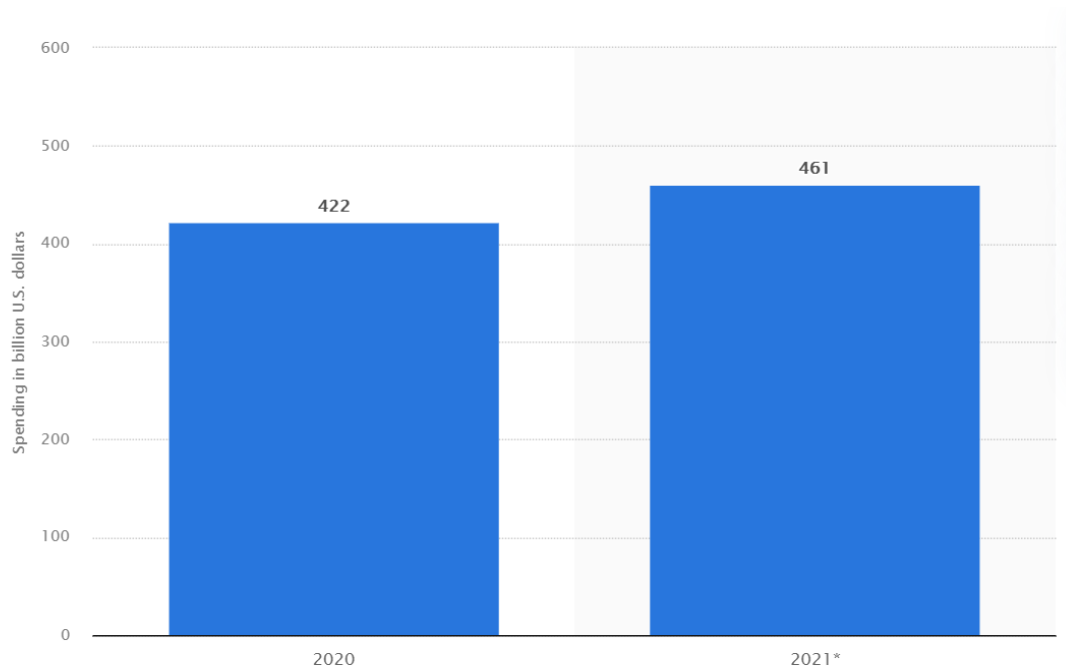


Figure 1.1: Consumer spending on technology worldwide in 2020 and 2021.

Source: Statista.com

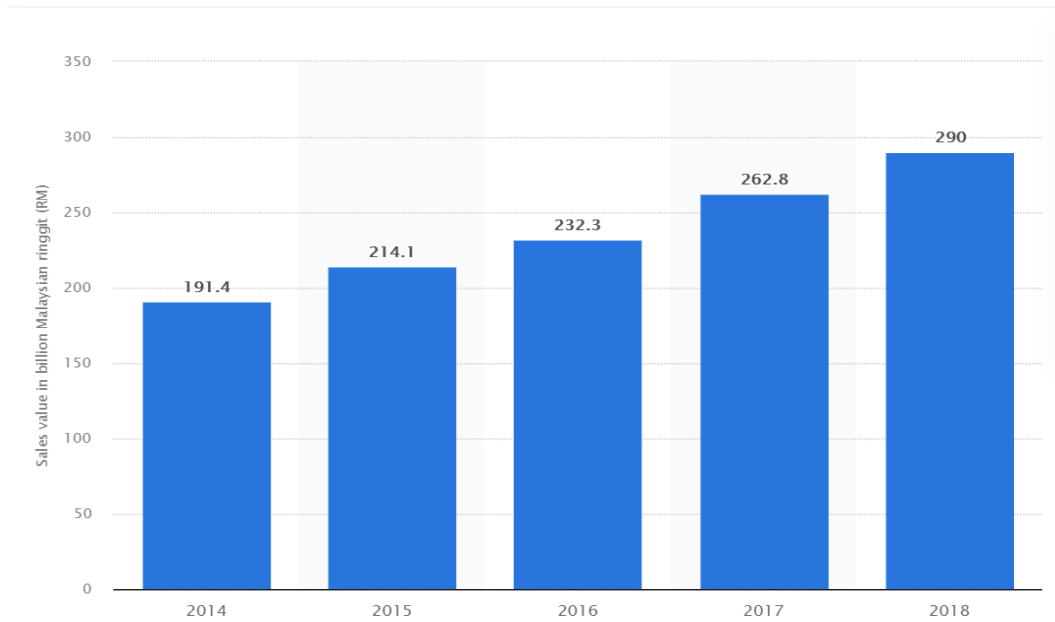


Figure 1.2: Sales value of the electrical and electronics industry in Malaysia from 2014 to 2018.

Source: Statista.com

According to Vailshery (2021), Apple is the most recognizable brand in the consumer electronics industry globally and produces innovative products such as the iPhone, iPad, MacBook, AirPods, Apple Watch, and so on. Also, Apple's company is ranked number one among other competitors on the Forbes list, with sales of 294 billion U.S. dollars in 2021 (Figure 1.3).

In Malaysia, Apple's company has the highest market share among other mobile vendors in 2021, contributing 23.85%, as shown in Figure 1.4. (Muller, 2021). Moreover, the consumer electronics sector is expected to generate \$1,314 million in revenue in 2021. By 2025, revenue is estimated to expand at a 14.84% annual rate (CAGR 2021-2025), representing an increase of \$2,286 million (Consumer Electronics, 2021).

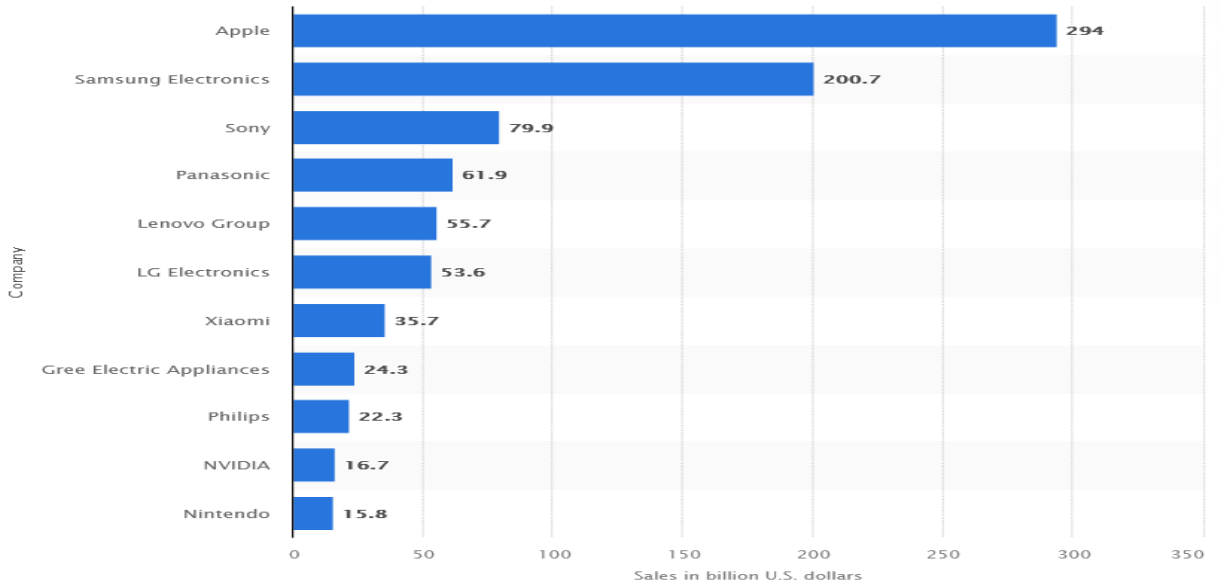


Figure 1.3: Sales of the leading consumer electronic (CE) companies worldwide in 2021.

Source: Statista.com

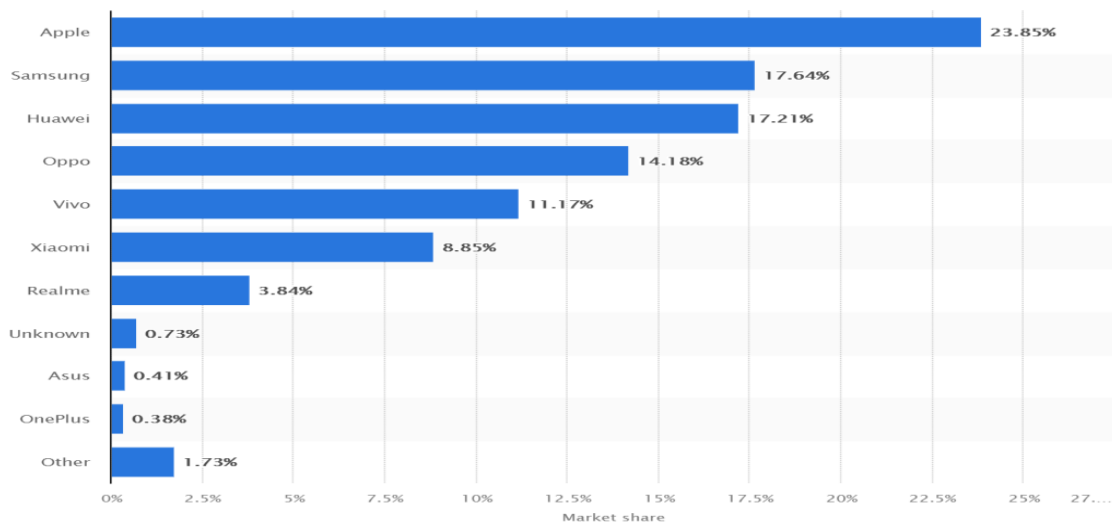


Figure 1.4: Market share of leading mobile vendors across Malaysia as of August 2021.

Source: Statista.com

For many years, Apple's brand loyalty, especially iPhone smartphones, has been one of its strengths in the consumer electronic market. So, the Apple brand has significantly impacted the brand loyalty of the consumers. Apple has a high level of customer loyalty because it has traditionally recognized an innovative culture as a key factor in its success by differentiating its products in the consumer electronics industry in order to establish customer loyalty and brand equity, which is a great approach to creating sustainable competitive advantage (Kim, Jeong, & Kim, 2021).

## **1.2 Problem Statement**

Apple Inc. is the most famous multinational company globally; it is also known as the king of brand loyalty in the consumer electronics industry in the world. In 2021, Apple had a brand value of approximately 263.4 billion U.S dollars (Figure 1.5), which is the most valuable brand in the world (Statista Research Development, 2021). In overall, Apple was completely unaffected by the pandemic of COVID-19 although its stock dropped around 19% from record highs in the early stages of the pandemic, but Apple rebounded and reported record-breaking profits, achieving \$64.7 billion in Quarter 4 of 2020 (Apple Newsroom, 2021). Yet, there are only a few studies done on Malaysia consumers with respect to brand loyalty of apple products although Apple is the top brand of consumer electronic industry in the world. Thus, our research question is: what are the variables that affect consumers' brand loyalty to Apple products in Malaysia?

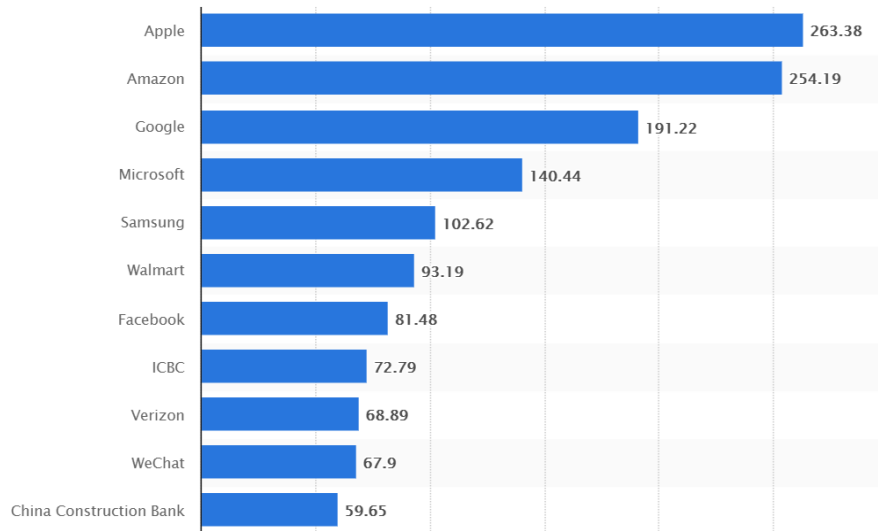


Figure 1.5: Most valuable brands worldwide in 2021.

Source: Statista.com

In the smartphone industry, aggressive competition is considered to be a problem, influencing Apple’s brand loyalty. According to StatCounter (2021), Apple operates in a highly competitive market, which was the second largest smartphone business in the worldwide market, with a market share of 27.08%, behind Samsung, which had a market share of 28.4% (Figure 1.6). Since 2012, Samsung competes with Apple in practically every segment and has maintained market shares of 20% to 30% in the smartphone industry (Li, 2021). Due to the highly competitive industry of consumer electronics products, especially smartphones, the understanding of brand image and brand loyalty of consumers are extremely important for the producers, marketers in positioning their products, marketing channels, pricing, promotion, and distribution, as known as the marketing mix (4Ps). Thabit and Raewf (2018) described marketing mix as the collection of various marketing decision factors, strategies, and techniques utilized by company management to promote the products and services for developing and performing the entire marketing process flow. In the highly competitive market, each aspect of the marketing mix of Apple has a significant impact on customer

loyalty to avoid competitors such as Samsung and Huawei from grabbing customers by attaining customer satisfaction. Therefore, aggressive competition between Apple and Samsung would change the purchase decisions of consumers, thus, affecting the Apple's brand loyalty.

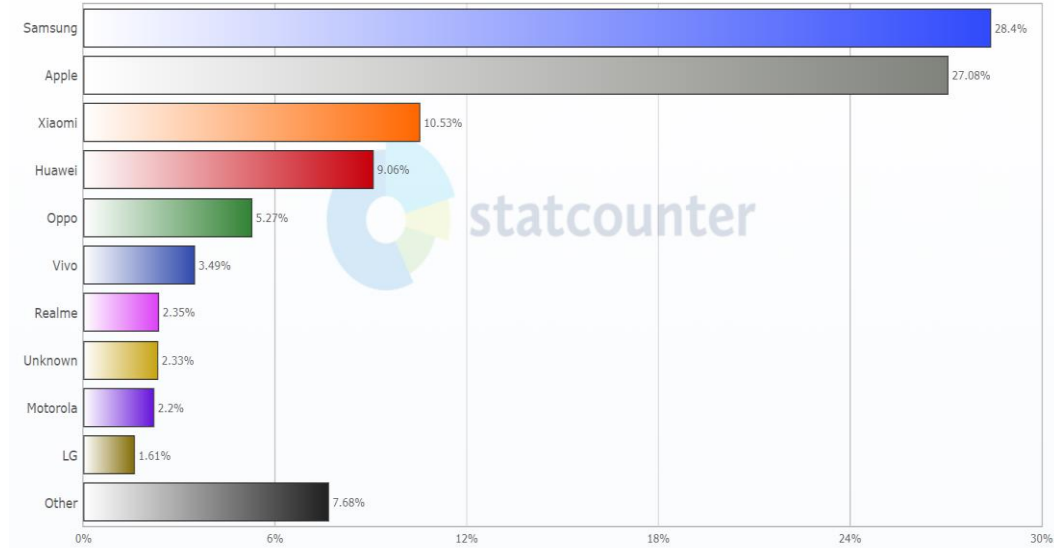


Figure 1.6: Mobile Vendor Market Share Worldwide (Oct 2020-Oct2021).

Source: StatCounter.com

### 1.2.1 Research Gap

There is a lot of pre-existing literature on brand loyalty, but most of it has only centred around smartphones, by Kim et al. (2020), by Sanjaya et al. (2020), and by Hokky and Bernarto (2021). So, there is a problem with a lack of researchers investigating other Apple products such as the MacBook, Airpods, and Apple Watch by further analysing the brand loyalty of consumers to other Apple products. On the other hand, the local research and depth analysis on factors influencing consumers' brand loyalty to Apple products is limited because foreign research is inappropriate in the Malaysian context



related to variations in demographics and norms. Table 1.1 lists previous studies that identified research gaps that prompted this research.

Table 1.1: Past Studies Identifying Research Gaps

<b>Research Title</b>	<b>Author(s)</b>	<b>Country</b>	<b>Does it cover brand loyalty?</b>	<b>Does it cover Apple product?</b>
1. Smartphone preferences and brand loyalty: A discrete choice model reflecting the reference point and peer effect.	Kim, Lee & Lee (2020)	South Korea	Yes	Yes
2. The Effect of Brand Image, Brand Experience and Brand Loyalty towards Purchase Intention on Apple Smartphone in Makassar.	Sanjaya, Asdar & Munir (2020)	Makassar	Yes	Yes
3. The role of brand trust and brand image on brand loyalty on Apple iPhone smartphone users in DKI Jakarta.	Hokky & Bernarto (2021)	Indonesia	Yes	Yes

In this research, the main purpose is to develop literature related to brand loyalty to an international brand, namely Apple products in Malaysia by analyzing the existing knowledge and research in order to improve the significance of the finding by comparing it with existing literature.

## **1.3 Research Objectives**

In order to construct the objectives for this research, general and specific objectives are developed based on the problem statement.

### **1.3.1 General Objectives**

The main objective of this research study is to investigate the factors that affect consumer brand loyalty to Apple products in Malaysia.

- i) To examine if there is a relationship between brand awareness and brand loyalty among Apple products in Malaysia.
- ii) To examine if there is a relationship between perceived quality and brand loyalty among Apple products in Malaysia.
- iii) To examine if there is a relationship between perceived value and brand loyalty among Apple products in Malaysia.
- iv) To examine if there is a relationship between brand personality and brand loyalty among Apple products in Malaysia.
- v) To examine if there is a relationship between brand associations and brand loyalty among Apple products in Malaysia.
- vi) To examine if there is a relationship between brand uniqueness and brand loyalty among Apple products in Malaysia.

## 1.4 Research Questions

The primary goal of this study is to figure out what factors that affect consumer brand loyalty towards Apple products in Malaysia. The following are the research questions:

- i) Is there any significant relationship between brand awareness and brand loyalty among Apple products in Malaysia?
- ii) Is there any significant relationship between perceived quality and brand loyalty among Apple products in Malaysia?
- iii) Is there any significant relationship between perceived value and brand loyalty among Apple products in Malaysia?
- iv) Is there any significant relationship between brand personality and brand loyalty among Apple products in Malaysia?
- v) Is there any significant relationship between brand association and brand loyalty among Apple products in Malaysia?
- vi) Is there any significant relationship between brand uniqueness and brand loyalty among Apple products in Malaysia?

## **1.5 Significance of Research**

The findings for this research might assist Apple, marketers, business owner, academic world, and other relevant parties in determining the importance of consumer brand loyalty to Apple products in Malaysia by retaining the customers. Since many consumers' personality and behavior has changed, the consumer electronics industry has been greatly impacted by the outbreak of COVID-19. As a result, this research may be useful for business owners, and other relevant parties to maintain or develop their businesses, as well as to further study this topic.

Based on this study, the marketers or the business owners of consumer electronics industry can gain a better knowledge of the consumer's perspectives towards the Apple products. Therefore, the marketers and business owners may be able to make better judgments or decisions by adopting appropriate business strategies in order to maintain customer loyalty while ensuring long-term corporate success.

Furthermore, the academics could be able to reveal the significant insight into consumer's perceptions of Apple products. Based on this insight, they may conduct more research and analysis to understand the variables that impact consumers' decisions to buy Apple products on a regular basis. On the other hand, the academicians could be able to acknowledge the importance of brand loyalty in businesses, and they may refer to this research to identify any relevant businesses that can maintain brand loyalty to achieve competitive advantages.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.0 Introduction**

The literature review and secondary data, which are online resources, journals, and textbooks that are utilized to support the research, are included in this chapter. In addition, a conceptual framework has been developed, and hypotheses will be investigated in this chapter.

### **2.1 Customer-Based Brand Equity (CBBE)**

Brand equity has been a key concept in the marketing field for defining the relationship between consumers and brands, and its significance has increased over recent years in the literature (Sharma, 2017). According to Farquhar (1989), brand equity creates a form of "added value" for products, which is bestowed on a product by a specific brand to help with the long-term interests and capabilities of that brand. Thus, growing brand equity is a key goal for brands, which can be accomplished by acquiring more positive connections and sentiments among target customers (Farjam & Hongyi, 2015). From the customer perspective, customer-based brand equity (CBBE) is the study of brand equity (Sharma, 2017).

CBBE was described as a collection of assets and liabilities related with a brand, a comprehensive concept with four main components of brand equity, which are brand awareness, perceived quality, brand association, and brand loyalty (Aaker, 1991). In other words, CBBE is also the component of consumers' brand knowledge that creates a differential influence in behaviour towards the brands or company (Keller, 2003). Likewise, the emphasis of this research is on the CBBE of Apple products from a marketing viewpoint, with the CBBE dimensions that focus on customer perceptions and reactions to the brand loyalty of Apple products. Hence, brand equity aids in contributing to the competitive advantage of brands in the marketplace (Keller & Lehmann, 2003). Previous studies have used a correlation between the CBBE approach and brand loyalty. According to (Romaniuk & Nenycz-Thiel, 2013), the CBBE approach raises severe concerns regarding causation, especially if there is a relationship between previous brand loyalty and current brand associations. Despite the fact that many researchers have argued for the notion of brand equity, there are few empirical studies to assess the dimensions (Sharma, 2017). Thus, this study investigates the critical role of the CBBE approach in understanding the consumers' brand loyalty towards the Apple products.

## **2.2 Review of Literature**

### **2.2.1 Brand Loyalty**

According to Aaker (1991), a consumer's commitment to a particular brand can be measured by brand loyalty. It further explains that a consumer's honest commitment to repurchasing a favoured brand in the future, notwithstanding situational considerations and other rivals' marketing strategies, has been characterised as brand loyalty (Oliver, 1997). The more the customer purchases

the brand's product, the more loyal the customer is to the brand (Yamawati & Indiani). Therefore, brand loyalty can improve the brand's reputation by maintaining a relationship between it and its customers.

The past research by Marmaya, Razak, Alias, Karim, Saari, Borhan, Koe, and Salim (2019) investigated the factors affecting brand loyalty for smartphones, which included 152 respondents from Generation Y in Malaysia. The finding revealed a critical connection between brand image, trust, and customer satisfaction in terms of brand loyalty on smartphones. Referring to the research by Yamawati and Indiani (2019), the result also found that the customer's interest in buying a Xiaomi smartphone is influenced by brand loyalty, which is a critical factor in Indonesia. Therefore, brand loyalty is important to businesses and companies that can benefit from it in order to gain a competitive advantage in the smartphone industry (Pratama & Suprpto, 2017).

## **2.3 Independent Variable**

### **2.3.1 Brand Awareness**

Keller (2008) explained the brand awareness as the ability of buyers to bring to mind or recognize a brand, or merely whether they are aware of it. The previous literature indicated that the awareness has an influence on brand equity and may be used to formulate a plan for improving consumer mind-set brand equity (Su & Chang, 2017), connecting brand knowledge with the brand name. Moreover,

brand awareness can strengthen a brand's value by embedding it in the consumers' mind, and thus preventing new brands' entry, assuring and strengthen a company's dedication to brand quality (Aaker, 1992). In other words, a high awareness of a brand will impact the purchasing decision of consumers because they tend to choose a familiar and well-known goods (Macdonald & Sharp, 2000).

Past studies by Zia, Younus, and Mirza (2021) found that brand awareness entirely mediates the influence of brand loyalty, brand image, and brand equity. Moreover, another study by Krishnaprabha and Tarunika (2020), indicated that there is a significant link between digital marketing and brand awareness. Through the analysis of brand awareness, companies apply digital marketing to build relationships with consumers by establishing a positive brand image.

### **2.3.2 Perceived Quality**

Perceived quality is a factor that might impact the consumer brand loyalty of Apple products. According to Aaker (1992), perceived quality adds value by offering a reason to purchase, distinguishing the brand, raising channel member attention, forming the basis for line extensions, and justifying a higher cost. In other words, perceived quality is also defined as "the customer's judgement about a product's overall performance and dominance (Zeithaml, 1988). Perceived quality has been a major business objective for many companies, and it may be used to motivate initiatives aimed at improving brand equity (Su & Chang, 2017).



Based on Alhaddad (2015), he stated that perceived quality is the main factor that marketing managers should focus their efforts on, which will directly influence brand loyalty. Another study by Saleem and Omar (2015) indicated that if a brand is successful in enhancing quality perceptions, it will have a high degree of loyalty. It further explains that brand image partially affects the correlation between perceived quality and brand loyalty. Overall, both researchers believe that perceived quality has a direct relationship with brand loyalty or brand equity towards a company.

### **2.3.3 Perceived Value**

McDougall and Levesque (2000) defined perceived value as the advantages that consumers believe they obtain in relation to the expenditures associated with their consumption. According to Zeithaml (1998), the concept of perceived value is explained as "the consumer's overall evaluation of the value of a product based on satisfaction with what is received and what is given" in comparison to other brands.

Previous research by Keshavarz and Jamshidi (2018) concluded that customer loyalty is proven to be dependent on satisfied consumers, perceived value, process, and output quality, which are essential practical criteria for evaluation in order to improve customer loyalty. Similarly, Servera-Francés and Piqueras-Tomás (2019) have proved that the relationship between commitment and perceived value has some impact on brand loyalty. Therefore,

firms should concentrate their efforts on the operations that allow them to enhance both perceived value and brand loyalty.

### **2.3.4 Brand Personality**

From the consumer's perspective, the more attributes, or personalities, that a brand may adopt, the more it is referred to as a "brand personality" (Aaker, 1991; Keller, 1993). Notwithstanding, personality is most often connected with humans, but it can also be related to brands and exploited by firms to build positive relationships with their customers (Aaker & Biel, 1993). Furthermore, brand personality is primarily symbolic and the major driver of brand identification, which has been shown to have a strong beneficial impact on brand loyalty (Azoulay & Kapfere, 2003).

Research by Garanti and Kissi (2019) reveals that brand equity has a beneficial impact on brand loyalty and significantly mediates the association between brand personality and brand loyalty. Moreover, Nikhashemi and Valaej's claimed that the brand personality has a significant role in cognitive and brand loyalty, and thus there are more loyal consumers to repurchase and spread positive word of mouth.

### **2.3.5 Brand Associations**

According to Aaker (1991), brand associations are "anything in a consumer's memory associated with a particular brand." These associations form a network, thus creating an overall brand image in three main categories, which are attributes, benefits, and attitudes. Aaker (1991) also argued that brand association will be stronger when it is founded on various experiences or exposed to communication, and when it is supported by a network of other ties. So, he recommended that brand associations may offer value to customers by giving them a motive to purchase the brand by building positive perceptions and sentiments among the customers.

Based on the study by Phong, Nga, Hanh, and Minh (2020), they found that the more brand associations a product has, the more likely a customer will remember it and be loyal to the brand. In other words, brand associations are vital in distinguishing one company from another by creating positive perspectives from customers towards a company's product, which is very beneficial to the company. Similarly, Su and Chang (2018) also concluded that customers tend to trust their feelings and attitudes toward the brand, which has a significant effect on brand loyalty.

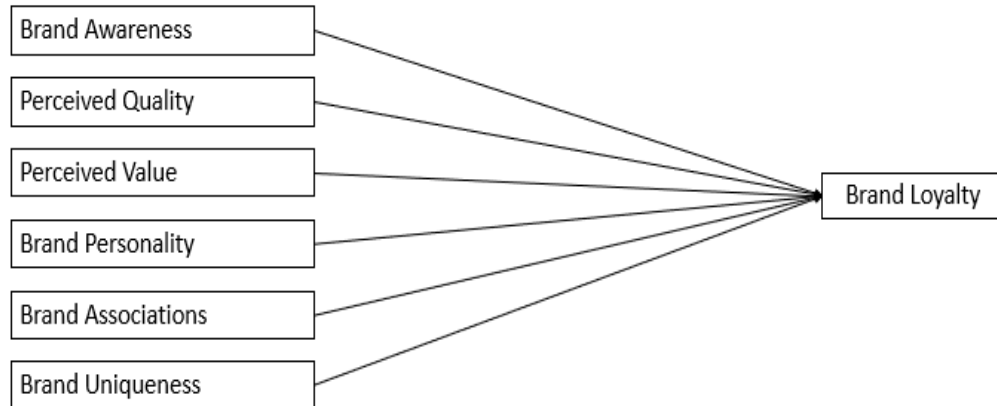
### **2.3.6 Brand Uniqueness**

Brand uniqueness refers to how distinct a brand is different from its competitors in terms of how buyers perceive it (Netemeyer et al., 2004). In other words, if the brand is not considered unique among its rivals, attracting customers' attention, and establishing consumer preferences and loyalty would make it difficult to survive in the competitive marketplace. Besides, this uniqueness can lead to a higher level of confidence in the brand's trustworthiness, and it can also lead to a more beneficial influence when consumers utilise the brand (Chaudhuri & Holbrook, 2001). Thus, brand uniqueness may cause loyal consumers to repeatedly buy the same brand regardless of situational constraints, thereby gaining a greater market share (Assael, 1998).

Su and Chang (2017) concluded that brand uniqueness influences customers' purchase decisions and their willingness to pay a higher price for a brand. They further mentioned that brand uniqueness is one of the main dimensions of brand equity that contribute to customers' brand loyalty. According to Tohir and Nugroho (2018), they found that brand uniqueness has the highest factor loadings among other factors, which include brand awareness, perceived quality, perceived value, brand personality, and organisational associations. They also concluded that if the brand is more unique, it will increase brand loyalty from the customers' perspective.

## 2.4 Proposed Theoretical/ Conceptual Framework

**Figure 2.1: Theoretical Framework**



Source: Developed for the research.

According to Su and Chang (2018), consumers will be influenced by the independent variables on brand loyalty in any industry in Malaysia that were included in their study's proposed model.

## **2.5 Hypothesis Development**

### **2.5.1 Brand Awareness**

*H1<sub>0</sub>*: There is no significant relationship between brand awareness and brand loyalty.

*H1<sub>1</sub>*: There is a significant relationship between brand awareness and brand loyalty.

Based on Pratama and Suprpto (2017), found that the customer's brand choices were influenced by a brand's reliability because they had a prejudice the brand image or quality of the products. Thus, it is well understood that brand awareness and brand loyalty are positively connected towards Samsung smartphone in Indonesia. Therefore, Sharma (2017) claims that a company with high awareness may boost the customer loyalty in order to strengthen the purchase intention of local smartphones in India.

### **2.5.2 Perceived Quality**

*H2<sub>0</sub>*: There is no significant relationship between perceived quality and brand loyalty.

*H2<sub>1</sub>*: There is a significant relationship between perceived quality and brand loyalty

Research done by Ruiz, Restrepo, Lopez, and Kee (2020) stated that perceived quality is considered as an important factor that drives consumers' brand loyalty as perceived quality has a bigger influence on a consumer's purchase intention than brand awareness, which is highly beneficial to brand loyalty towards Samsung products when compared in Malaysia and Colombia. Besides, Mazlan, Ariffin, Aziz, and Yusof (2016) claimed that perceived quality is a significant variable of brand loyalty as the higher the perceived quality of customers, the stronger the willingness to buy, which will further improve customer loyalty to the iPhone in Malaysia. Therefore, perceived quality is suitable to be applied in this research.

### **2.5.3 Perceived Value**

*H3<sub>0</sub>*: There is no significant relationship between perceived value and brand loyalty.

*H3<sub>1</sub>*: There is a significant relationship between perceived quality and brand loyalty

Can and Erdil (2018) investigated the antecedents of smartphone brand loyalty and repurchase intention in the marketing field and proposed a theoretical framework that emphasized perceived value as one of the critical variables. According to Ashraf, Ilyas, Imtiaz, and Ahmad (2018), perceived value is positively impacting brand loyalty as the more value that consumers gain, the more loyal they will be to the company when consumer satisfaction is mediated in the relationship between perceived value and brand loyalty in the service sector in Pakistan.

### **2.5.4 Brand Personality**

*H4o*: There is no significant relationship between brand personality and brand loyalty.

*H4i*: There is a significant relationship between brand personality and brand loyalty

Based on the research by TUZCUOĞLU, FAYDA, TUNIYAZI, Zübeyde (2018), they found that the association between brand personality and brand loyalty is significant among personality attributes for the consumers of Apple and Samsung smartphones. Therefore, they concluded that brand personality perceptions influence brand loyalty on the purchase intention of smartphones. Moreover, researchers Pinson and Brosdahl (2014) stated that brand personality is positively correlated with brand loyalty. They further mentioned that the higher the attractiveness and customer identification of brand personality, the more loyal the consumers will be, so the finding shows that Apple brand personality has a positive association with Apple brand loyalty.

### **2.5.5 Brand Associations**

*H5o*: There is no significant relationship between brand associations and brand loyalty.

*H5i*: There is a significant relationship between brand associations and brand loyalty



Based on Inthasang and Thiamjite's (2021) examination, brand association is considered as one of the main variables that lead to higher customer satisfaction, thereby improving brand loyalty within the context of the Toyota brand in Thailand. Moreover, Chithrasekara and Karandakatiya (2019) stated that brand association has a positive significant relation to brand loyalty by influencing consumer purchasing behaviour and contributes to enhanced brand loyalty based on Huawei in the Colombo region.

### **2.5.6 Brand Uniqueness**

*H60*: There is no significant relationship between brand uniqueness and brand loyalty.

*H61*: There is a significant relationship between brand uniqueness and brand loyalty

According to Dehghani and Kim (2019), the unique brand of smartwatches has a significant positive relationship that influences purchase intention, thereby increasing consumer brand loyalty, which is a critical factor of perceived enjoyment and self-expression for potential users of the smartwatch. Besides, Chansuk and Chaipoopirutana (2020) stated that brand uniqueness is the main variable among other variables that have a positive relationship with brand loyalty to the leading premium brand in Bangkok, Thailand.

## **2.6 Conclusion**

In Chapter 2, previous studies on how independent variables impact the dependent variable in terms of conceptual framework and hypothesis were discussed and conducted by other researchers, while the methodology for this study will be examined further in the following chapter.

## **CHAPTER 3: METHODOLOGY**

### **3.0 Introduction**

This chapter will explain the variables were assessed using a research methodology that influence consumers brand loyalty for Apple products users. Research methodology is a set of procedures for analyzing the objectives proposed in the first chapter. It also includes the description of the study's research methodology, data collection methods, sampling design, research tools, structural measurements, and data processing procedures in Chapter 3.

### **3.1 Research Design**

The research study can be constructed by combining all relevant elements into a study framework, which is known as research design, which plays a critical role as it is a primary plan that outlines the approaches and procedures for gathering the required data to obtain accurate information by performing it in a reliable test.

Burns and Grove (2003) defined research design as a “blueprint for performing research with maximal control over elements that could affect the findings’ validity (p. 195).” Meanwhile, others characterized research design as a strategy for determining how, when, and where data would be gathered and analyzed (Parahoo, 1997). Besides, Selltitz stated that “A research design is an arrangement of setting for collecting and analyzing data in a manner that intends to combine relevance to the study with the economy in procedure.”

Furthermore, quantitative methods are being utilized in this study to collect data and evaluate the data statistically as it is more appropriate for measuring and analyzing the aim of this research study to ensure the research and hypothesis with theory and to provide a conclusion by using quantitative methods in the research (Wright et al., 2016). It also allows researchers to investigate the relationship between variables using an analysis method that represents the relationship numerically and quantitatively (Center for Research and Teaching Innovation, 2018). Therefore, it can aid in the pursuit of exact measurement and evaluation of target concepts such as surveys, as well as explain misunderstandings and discover some prospective business prospects.

According to Shuttleworth (2008), anthropologists, psychologists, and scientists typically utilize descriptive research to examine the natural behavior of sample respondents without influencing them in any manner in order to avoid the Hawthorne Effect. Not only that, but the market analysts also employ this research to discover more about their customers' behavior. Neville (2007) stated that descriptive research aimed to investigate a phenomenon that happened at a given time and place, which is used to distinguish the attributes and aspects of the subject. In this research, descriptive research was performed to discover the characteristics that would affect consumers' brand loyalty to Apple products, leading to more critical data and information that could be beneficial in current or future studies (University of Southern California Libraries, 2016).

### **3.2 Data Collection Method**

Data collection is one of the vital processes of collecting data in any research. According to Mouton (2001), data collection is the systematic process of collecting and measuring data on variables of interest in order to achieve the research objective, test

hypotheses, and analyze the findings. In this research, primary and secondary data, which are the main sources were used to collect data.

### **3.2.1 Primary Data**

The data and information gathered firsthand by the researchers are referred to as primary data from the original data, such as interviews, questionnaires, and surveys are examples of primary data used by researchers to gather information for their research studies (Kabir, 2016). According to Lietz (2010), questionnaire strategies also promote a more efficient process for gathering important data for the study. In this research, the questionnaire was applied as the primary source of data and information in order to obtain accurate outcomes using SPSS analysis. This is because a questionnaire is a vital technique for gathering data on open knowledge. It can also provide reliable information that allows researchers to gain a realistic perspective on the topic.

### **3.2.2 Secondary Data**

Based on (Zikmund, 2003; Sekaran and Bougie, 2010; Reji, 2011), secondary data includes information that has already been obtained from a variety of sources such as corporate records, industry studies, government publications, reports from research organizations that provide continuing data, and other relevant external sources. Based on Doolan and Froelicher (2009), secondary data is a reliable method that may be used in various approaches; it is also an empirical activity that includes procedural and evaluative elements, much like collecting and assessing primary data. In this research study, a variety of

secondary sources have been utilized to gather data and information. It is essential to collect data from the professional journals and articles from UTAR digital library and website as it is very reliable, has delivered explanations, and has evidence to support all statements by comparing the literature reviews from prior research. Besides, company records also have been used in this research by comparing the sales and revenue of consumer electronic companies for analysis.

### **3.3 Sampling Design**

Sampling is the process of obtaining data from an overall population of a manageable size. Besides, sampling also offers several strategies for reducing the amount of data gathered, and the sample acquired. The population of the study, sampling frame, sampling technique, and sampling size are all elements of the sampling design in research analysis.

#### **3.3.1 Target Population**

A group of respondents was deliberately targeted in a study to get results. In this research, Malaysians who use Apple products are the target respondents. The main reason for targeting Malaysian as respondents is to explore consumer brand loyalty towards Apple products. Thus, researchers are able to obtain detailed information and data through the involvement given by the target respondents.

### **3.3.2 Sampling Frame and Location**

Based on Taherdoost (2016), a sampling frame is a collection of source resources from which a sample is chosen. Furthermore, he argued that a perfect sample frame is comprehensive, accurate, and latest and that its relationship to the target population may determine the frame's quality. The location and age range of respondents who use Apple products in Malaysia was determined by the responses of the target audiences. The survey was performed online in order to collect responses for further analysis.

### **3.3.3 Sampling Elements**

The major criterion for determining valid target respondents for the research sample element is whether the respondents are Malaysian Apple product users. The reason for focusing on potential respondents who are actual Malaysian Apple products users is because they are more aware of the aspects that influence brand loyalty when using Apple products. Furthermore, a valid Malaysian Apple products user would offer trustworthy and useful information regarding their comments and awareness of Apple products. Therefore, consumers who identify as qualified respondents must have used Apple products, regardless of demographic differences such as gender, age, income, educational level, etc.

### **3.3.4 Sampling Size**

According to Malhotra, Kim, and Patil (2006), the sample size is defined as the overall number of target audiences in the research study. They also indicated that the most suitable sample size for the bulk of research articles is between 30 to 500. There were 200 sets of questionnaire surveys distributed in total among Malaysians for this study. Furthermore, the pilot test samples will be examined before the actual distribution of the survey.

### **3.3.5 Sampling Technique**

Sampling techniques are classified into two groups which are probability and nonprobability sampling. Based on Zikmund, Babin, Carr, and Griffin (2013), nonprobability sampling is a sampling technique that includes convenience sampling, judgment sampling, quota sampling, and snowball sampling that sample units are chosen based on personal preference or convenience, while the probability of any given member of the population being selected is unknown. In conducting this study, convenience sampling will be chosen due to the limited time and budget. Obtaining those people or unites who are most readily available is convenience sampling (Zikmund et al., 2013). Convenience sampling is the most employed for research studies as it involves students or individuals in public areas.



### **3.4 Research Instrument**

There are numerous ways for gathering data for each research project, including surveys, questionnaires, interviews, and systematic observations. In this research, a questionnaire was utilized as an approach to collect primary data. The questionnaire was chosen for its convenience of use and straightforward questions. Thus, clear, direct, and easy-to-understand questions are being used when conducting surveys. A well-designed questionnaire allows researchers to collect essential and crucial information from respondents, which aids in the achievement objectives of the research while also providing reliable data at the same time.

Besides, closed-ended questions are employed as research methods in this research, with respondents selecting the option that can best represent their opinion. The reason for choosing closed-ended questions is because it enables the respondents to choose their level of agreeableness towards the questions. Not only makes it more convenient for participants to select the pre-determined response that best represents their viewpoint, but it also makes it easier for researchers to compute the findings and present them in tables and graphs.

#### **3.4.1 Questionnaire Design**

There are 29 questions in total in this questionnaire, which is divided into three sections. The first part (Section A) consists of 3 questions based on the general information about Apple products users. Besides, the second part contains four demographic profile questions, such as gender, age, current employment status, and monthly income (Section B). For the last part (Section C), there are a total

of 22 questions that cover all of the independent and dependent variables. In contrast, the respondents' responses were measured using a 5-point Likert Scale which varied from "strongly agree, agree, neutral, disagree." A Likert scale is an ordinal scale in which respondents select the option that best describes their thoughts. Usually, it is used to gauge respondents' attitudes by asking how agreeable they are to a particular issue or statement. This part aims to collect relevant data to investigate the relationship between each variable.

### **3.4.2 Pilot Test**

Before gathering data in the research, a pilot test must be completed as it is highly important (Hassan, Schattber & Mazza, 2006). Based on Van et al. (2001), a pilot test identifies practical issues in the research procedure.

In this research, 30 sets of surveys were distributed to the target respondents to evaluate the questionnaire's dependability before moving to the complete test. These questionnaires are being distributed to the Apple products user who uses Apple products such as iPhone, iPad, MacBook, Apple Watch, AirPods, etc. Following the data collection procedure, all relevant data will be entered into the Software Package for the Social Sciences (SPSS) in order to conduct the reliability test. Finally, the questionnaire will be readjusted and disseminated for the fundamental research depending on the pilot test findings. When the alpha value is more than 0.60, the variables is considered to be very reliable. In this research, all variables are greater than 0.60; thus, the variables can be justified as excellent and dependable. The final result is shown in Table 3.1.

**Table 3.1: Cronbach's Alpha of Pilot Test**

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>No. of Items</b>
Brand Awareness (BA)	0.780	3
Perceived Quality (PQ)	0.892	3
Perceived Value (PV)	0.882	3
Brand Associations (BA)	0.842	3
Brand Personality (BP)	0.881	4
Brand Uniqueness (BU)	0.844	3

Source: Developed for the research

### **3.5 Construct Measurement**

In this research, Section A, B and C are the three sections of this questionnaire. The respondent's profile information is discussed in Section A. The independent variables are discussed in Section B, while the dependent variable is discussed in Section C. In this study, the researcher applied existing survey instruments from several published sources. In Table 3.2, the origins of constructs will be shown below:

**Table 3.2 Origin of Construct**

<b>Constructs</b>	<b>No. of Items</b>	<b>Items</b>	<b>Sources</b>
Brand Awareness	3	<ol style="list-style-type: none"> <li>1. I am aware of Apple products.</li> <li>2. When I think of the consumer electronics brand, Apple products come to mind.</li> <li>3. I am very familiar with Apple products.</li> </ol>	Su, J. Chang, A., (2018)
Perceived Quality	3	<ol style="list-style-type: none"> <li>1. Apple provide good quality products.</li> <li>2. Apple provides products of consistent quality.</li> <li>3. Apple provides very reliable products.</li> </ol>	Su, J. Chang, A., (2018)
Perceived Value	3	<ol style="list-style-type: none"> <li>1. Apple products are good value for money.</li> <li>2. Apple products are good choice as all things considered (such as price, quality, security, efficiency and after sale services).</li> <li>3. I believe my money is worth for what I spend for Apple products.</li> </ol>	Su, J. Chang, A., (2018)

Brand Personality	4	<ol style="list-style-type: none"> <li>1. Apple products are interesting.</li> <li>2. Apple products are attractive.</li> <li>3. Apple products are up to date.</li> <li>4. Apple products are elegances.</li> </ol>	Su, J. Chang, A., (2018)
Organization Associations	3	<ol style="list-style-type: none"> <li>1. I trust the company which produce Apple products.</li> <li>2. I prefer the company which produce Apple products.</li> <li>3. The company that produces Apple products are reputable.</li> </ol>	Su, J. Chang, A., (2018)
Brand Uniqueness	3	<ol style="list-style-type: none"> <li>1. Apple products are special from other brands.</li> <li>2. Apple products really stand out from other brands.</li> <li>3. Apple products are unique from other brands.</li> </ol>	Su, J. Chang, A., (2018)

Source: Developed for research

### 3.5.1 Scale of Measurement

In order to generate data for analysis, this study employs a variety of measurement scales. When assigning a number to observation, the rule must be inferred to provide a specific explanation. The nominal, ordinal, interval, and ratio scales are all measuring scales. In this research, the questionnaire was designed using a nominal scale and interval scale.

### 3.5.2 Nominal Scale

A nominal scale is a qualitative scale that provides fundamental and generic information about the goods or people. According to Sekaran (2003), a variable including two categories is mutually exclusive and collectively exhaustive, allowing for the generation of outcomes. The researcher employed the nominal scale to classify the gender into male and female in this study. It determines the demographic profile for each respondent in Section B of the questionnaire. This is because it is an easy and convenient category term without inherent value. In this survey, gender is an example of a nominal scale.

**Figure 3.1: Example of Nominal Scale**

1. Please indicate your gender <input type="checkbox"/> Male <input type="checkbox"/> Female
--

Source: Developed for the research.

### **3.5.3 Interval Scale**

Based on Zikmund et al. (2003), the disparities between scale values are captured by the interval scale. In other words, interval scales can be used to compare stimuli based on variations in scale values. Besides, an interval scale can be explained as a quantitative scale that includes nominal and ordinal scales. To compute central tendency on the interval scale, researchers can utilize the mean, median, mode, and standard deviation.

### **3.5.4 Likert Scale**

According to Losby and Wetmore (2012), a Likert scale is an ordered scale in which respondents select the option that best represents their perspective. In surveys, the degree to which respondents agree with assertions is often measured using a Likert scale. The five-point Likert scale consists of “strongly disagree, disagree, neutral, agree, and strongly agree,” ranging from one to five, respectively. The items in each question in Section C were analyzed using a Likert scale in the questionnaire. The following example is based on the survey result from this research.

**Figure 3.2: Example of Likert Scale**

Dependent Variable: Brand Loyalty to Apple Products						
	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
BR1	I am committed to being loyal to Apple products.	1	2	3	4	5

Source: Developed for the research.

### 3.6 Data Processing

Data processing is the process of offering researchers' instruction on how to manage data, which includes questionnaire checking, data editing, and data coding.

#### 3.6.1 Questionnaire Checking

Questionnaire checking is a critical method to ensure that the survey questionnaire is error-free before distributing it to the target respondents. Grammar mistakes, inadequate information, or confusion are all examples of errors. Therefore, it will significantly impact the entire study's purpose and may help avoid misunderstandings among target respondents. In order to assure excellent research quality, the researcher applies the questionnaire checking procedure to discover errors and make corrections to the survey questionnaire before releasing it to target audiences.



### **3.6.2 Data Editing**

Based on Zikmund et al. (2003), data checking and adjustments for omissions, consistency, and readability are all part of the process of data editing. Before being acknowledged as the primary source, data collected from the target respondents should be modified to ensure reliability, perfect, consistency, and unbiased. On the other hand, if the questionnaire is missing too many questions, it is deemed invalid and removed from the database.

### **3.6.3 Data Coding**

Data coding aids the researcher in organizing the items in the questionnaire by providing a code or a number to each question to signify the most likely response, which means that the researcher assigned a series number to all of the data in the questionnaire. (Malhotra, 2006). For example, Section C of the survey represents strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, and 5 for strongly agree. Thus, this makes data input easier and faster for the researcher.

## **3.7 Data Analysis**

Data analysis is described as a way of minimizing and interpreting data overload. It also aids in making sense of large amounts of acquired data (Sheard, 2018). In other words, data analysis is utilized to determine suitable and accurate outcomes that will not lead to misinformation (Shepard, 2002). There are 200 survey questionnaires

distributed in this study, and all data was collected and input into SPSS for reliability objectives.

### **3.7.1 Descriptive Analysis**

Descriptive analysis can transform original data into something that respondents can understand, ensuring that they have a comprehensive understanding of the information. In a nutshell, descriptive analysis aids researchers in better understanding the survey questionnaire. It also can improve the respondents' understanding, comprehension, and application of the study. It includes several relevant cues like explaining, identifying, assessing, and evaluating and the option to graphically present represent the data (Chapman, Lawless & Boor, 2001).

#### **3.7.1.1 Reliability Test**

When it comes to evaluating measurement in research, reliability is a crucial measurement. According to Shekhar Singh (2014), the reliability test would increase transparency while reducing the chances of bias being introduced into the study. Golafshani (2003) stated that if the findings remain constant over time and the research is conducted using the correct representation, the result is reliable.

### 3.7.1.2 Cronbach's Alpha

Cronbach's Alpha is used to measure the reliability of the variables: brand awareness, perceived quality, perceived value, brand personality, organization associations, and brand uniqueness in the reliability test. According to Zikmund et al. (2010), Cronbach's Alpha values range is shown below.

**Table 3.3: Range of Cronbach's Alpha value**

<b>Cronbach Coefficient alpha (<math>\alpha</math>)</b>	<b>Indication</b>
$\alpha$ value < 0.60	Poor reliability
$\alpha$ value between 0.61 and 0.70	Fair reliability
$\alpha$ value between 0.71 and 0.80	Good reliability
$\alpha$ value between 0.81 and 0.95	Very good reliability

Source: Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th Ed.). Ohio: South-Western Pub.

### 3.7.2 Inferential Analysis

Inferential analysis is a type of research that concentrates on the data obtained in order to derive conclusions about a particular population. Furthermore, the inferential analysis may also be used to figure out how the dependent and independent variables are related. As the results of inferential statistics are based on facts and reasons, they may also be utilized to make probability

assessments (Zikmund, DAlessandro, Winzar, Lowe, & Babin, 2017). In order to determine the significant value, multiple regression analysis is utilized.

### 3.7.2.1 Multiple Linear Regression

Weiers (2011) claimed that the multiple regression model uses to investigate the linear connection between a dependent variable and two or more independent variables. Using the independent variable to make a forecast depends on the values of two or more variables to deduce the dependent variable's value. It considers all of the factors in order to determine how they influence the result (Nathans, Oswald & Nimon, 2012). Allison (1977) indicated that the equation below could be utilized as a multiple regression model.

#### **Figure 3.3: Equation of multiple regression**

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + \varepsilon$$

Source: Allison, P. D. (1997). Testing for interaction in Multiple Regression. *The American Journal of Sociology*, Vol. 83, No. 1, p. 145-153.

While the following is another general formulation for a regression equation with a multiplicative interaction effect:

**Figure 3.4: Equation of multiple linear regression**

$$y_i = y_0 + y_1x_1 + y_2z_i + y_3x_i z_i + \varepsilon_i$$

Source: Preacher, K.J., Curran, P.J. & Bauer, D.J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling and latent curve analysis. *Journal of Educational and Behavioral Statistics*, Vol. 31, No. 4, p. 437-448.

For  $i = n$  observation, whereby:

$y_i$  = Dependent Variable

$y_0$  = y-intercept (constant item),  $y_1$ :  $y_2$ :  $y_3$  are the slope coefficients for each explanatory variable.

$\varepsilon_i$  = model's error term (also known as the residual)

### **3.8 Conclusion**

In conclusion, all relevant information and outcomes will be grouped using the two categories of data. Besides, this chapter concluded the sampling design with a thorough test, and all questionnaires were successfully disseminated to all target respondents. These relevant facts are the key to benefiting all future Chapter 4 investigations by employing a procedure which is a pilot test to check if the dependent and independent variables are dependable.

## **CHAPTER 4 DATA ANALYSIS**

### **4.0 Introduction**

This chapter emphasizes on using the Statistical Package Social Science software to analyze the data. The figures and tables are used to illustrate the research's data and outcomes. The demographic profile is evaluated for descriptive analysis. The outcomes of a multiple regression analysis may also be obtained with the use of a measurement of scale.

### **4.1 Descriptive Analysis**

In order to conduct the study, 200 copies of a questionnaire filled out by Apple users were collected. The results of all 200 surveys will be analyzed in this study. The demographic information of the target respondents who use Apple products is offered, including gender, age range, and monthly income.

## 4.1.1 Respondents' Demographic

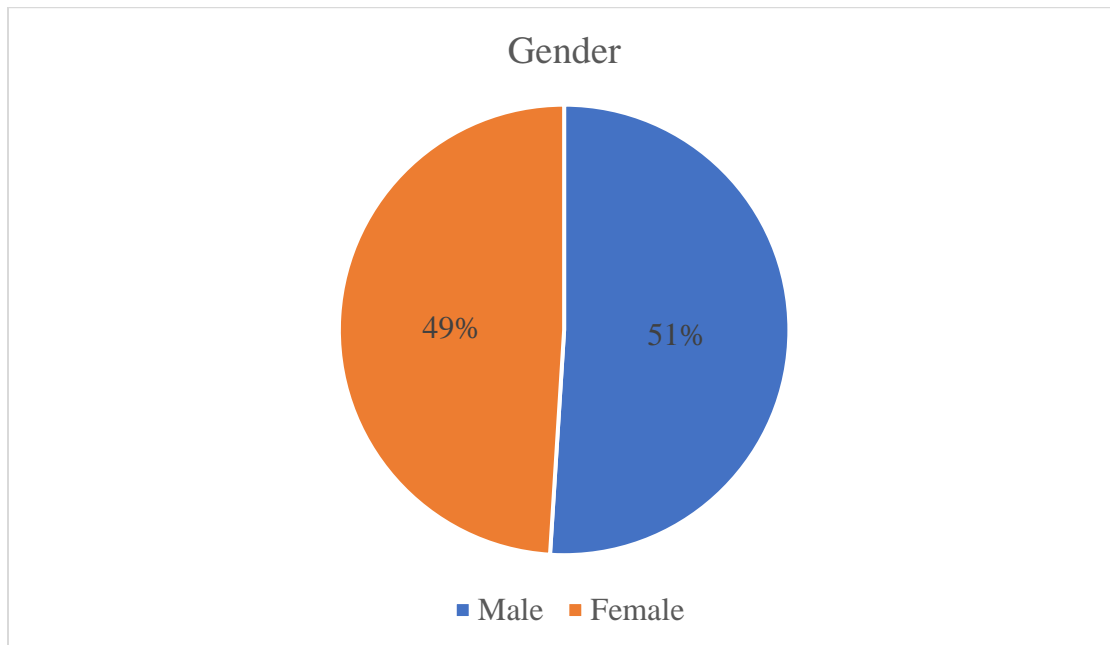
### 4.1.1.1 Gender

**Table 4.1: Statistics of Respondents' Gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Cumulative Percent (%)</b>
Male	102	51	51
Female	98	49	100
Total	200	100	

Source: Developed for research

**Figure 4.1: Statistics of Respondents' Gender**



Source: Developed for research

Table 4.1 and Figure 4.1 illustrate that the gender distribution of the respondents, indicating that there were 200 in total. There are 102 (51%) and 98 (49%) respondents respectively.

#### 4.1.1.2 Age Group

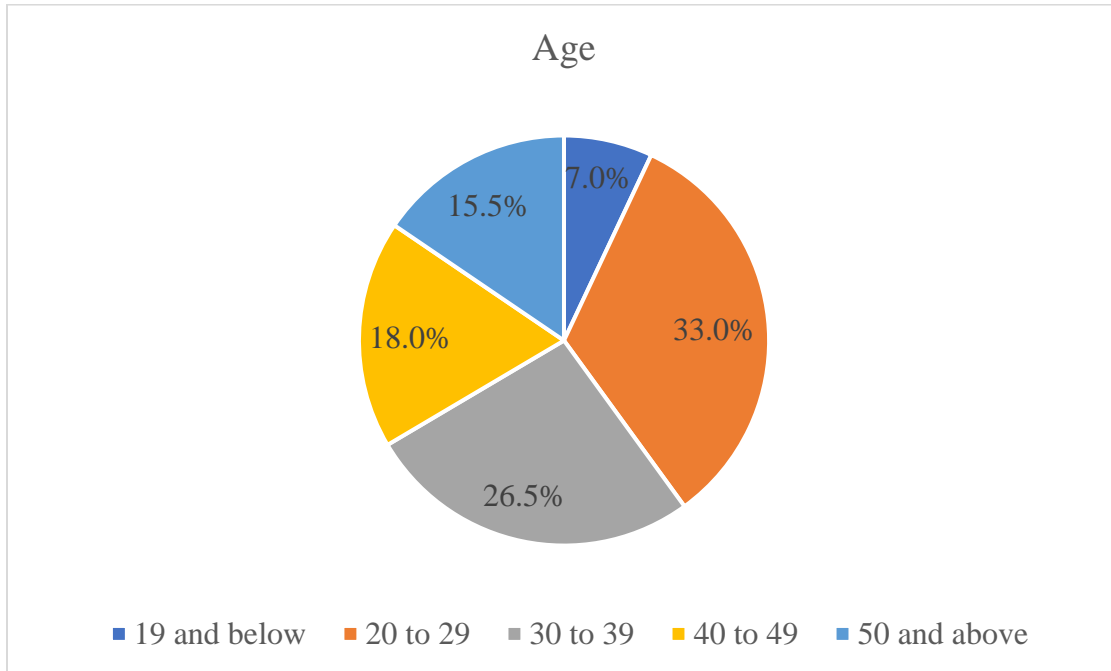
**Table 4.2: Statistics of Respondents' Age**

<b>Age Range</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Cumulative Percent (%)</b>
19 and below	14	7	7
20 to 29	66	33	40
30 to 39	53	26.5	66.5
40 to 49	36	18	84.5
50 and above	31	15.5	100.0
Total	200	100.0	

Source: Developed for research



**Figure 4.2: Statistics of Respondents' Age**



Source: Developed for research

Table 4.2 and Figure 4.2 reveal the respondents' ages, with the majority being between the ages of 20 and 29, with 66 respondents (33%), followed by the age groups 30-39 years old and 40-49 years old, with 36 (18%) and 31 (15.5%) respondents, respectively. Only 14 (7 %) of those polled are in the age group of 19 and below.

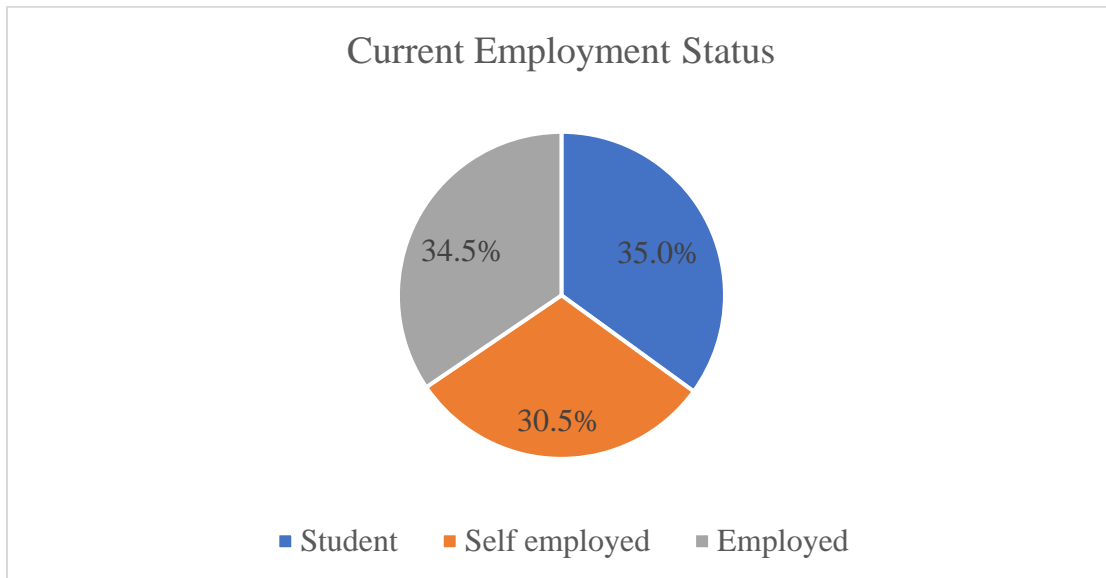
**4.1.1.3 Current Employment Status**

**Table 4.3 Statistics of Respondents' Current Status Group**

<b>Current Employment Status</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Cumulative Percentage (%)</b>
Student	70	35	35
Self employed	61	30.5	65.5
Employed	69	34.5	100.0
Total	200	100.0	

Source: Developed for research

**Figure 4.3 Statistics of Respondents' Current Status Group**



Source: Developed for research

Based on Table 4.3 and Figure 4.3, it showed that around 70 respondents (35%) are students. Whereas 69 (34.5%) of the respondents are currently under employed status, followed by 61 (30.5%) of the respondents are unemployed status.

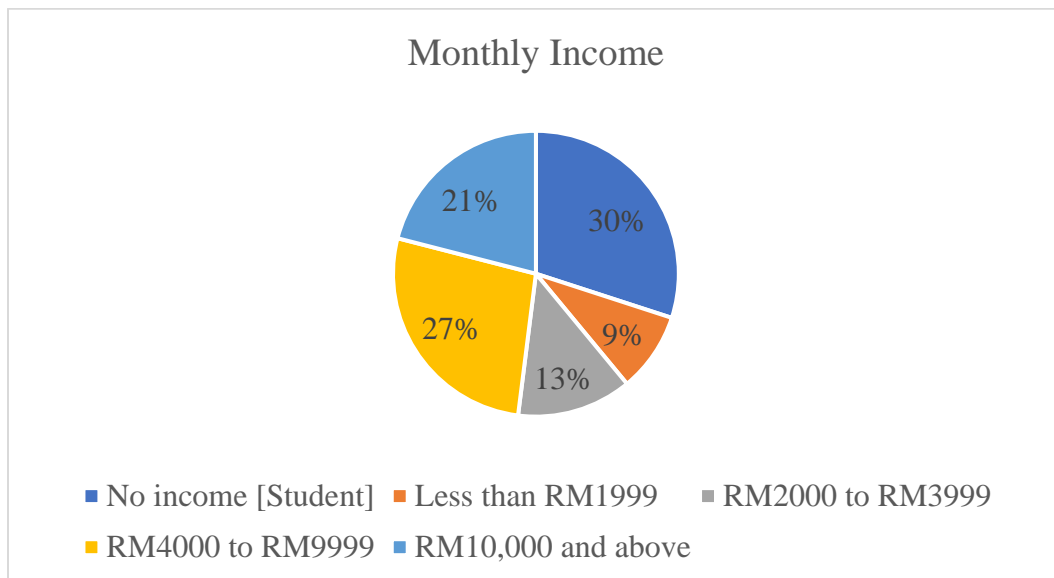
**4.1.1.4 Income per Month (RM)**

**Table 4.4: Statistics of Respondents' Monthly Income**

Monthly Income	Frequency	Percentage (%)	Cumulative Percentage (%)
No income [Student]	60	30	30
Less than RM1999	18	9	39
RM2000 to RM3999	26	13	52
RM4000 to RM9999	54	27	79
RM10,000 and above	42	21	100
Total	200	100	

Source: Developed for research

**Figure 4.4: Statistics of Respondents' Monthly Income**



Source: Developed for research

From the Table 4.4 and Figure 4.4, it revealed that 60(30%) of respondents' monthly income are students with no income. Whereas 54(27%) of respondents had a monthly income ranging from RM4000 to RM9999. Besides, 42 (21%) of respondents' income per month are between RM10,000 and above. Lastly, there are 26(13%) and 18 (9%) of respondents fall between the category of monthly income range of RM2000 to RM3999, and less than RM1999, respectively.

## 4.2 Central Tendency

**Table 4.5: Central Tendencies Measurement for Brand Loyalty**

Variable	Statement	SD	D	N	A	SA	Mean	Standard Deviation
BL1	I am committed to being loyal to Apple products.	0	1.5	6.0	42.0	50.5	4.42	0.675
BL2	Apple products would be my first choice when considering smartphones, laptops, etc.	0.5	5.0	6.5	35.0	53.0	4.35	0.849
BL3	I will continue buying Apple products.	0	0.5	6.0	37.0	56.5	4.50	0.634

*Source: Developed for research*

Based on Table 4.5, it showed the descriptive analysis, which involved the mean score, standard deviation, and percentage score of brand loyalty. The statement "I will continue buying Apple products" has the highest mean value and the lowest standard deviation value of 4.50 and 0.634. Whereas the statement "Apple products would be my first choice when considering smartphones, laptops, etc." had obtained the lowest mean value and highest standard deviation value of 4.35 and 0.849.

Besides, most of the respondents strongly agree with all the statements, with 50.5% for the statement "I am committed to being loyal to Apple products," 53% agreeing with the statement "Apple products would be my first choice when considering smartphones, laptops, etc." and 56.5% for the statement "I will continue buying Apple products."

**Table 4.6: Central Tendencies Measurement for Brand Awareness**

Variable	Statement	SD	D	N	A	SD	Mean	Standard Deviation
BA1	I am aware of Apple products.	0	0	3.5	37.5	59.0	4.56	0.564
BA2	When I think of the consumer electronics brand, Apple products come to mind.	0	1.0	2.0	40.5	56.5	4.53	0.593
BA3	I am very familiar with Apple products.	0	1.5	5.5	41.5	51.5	4.43	0.669

Source: *Developed for research*

According to Table 4.6, the statement "I am aware of Apple products" had the highest mean value of 4.56 and the lowest standard deviation value of 0.564. Whereas the statement "I am very familiar with Apple products" obtained the lowest mean value of 4.43 and the highest standard deviation of 0.669.

Based on the analysis of Table 4.6, the majority of respondents strongly agreed with all statements, with 59% strongly agreed with the statement "I am aware of Apple products." 56.5% for the statement "When I think of the consumer electronics brand, Apple products come to mind," and 51.5% for the statement "I am very familiar with Apple products."

**Table 4.7: Central Tendencies Measurement for Perceived Quality**

<b>Variable</b>	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>Standard Deviation</b>
PQ1	Apple provides good quality products.	0	0	4.0	38.5	57.5	4.54	0.575
PQ2	Apple provides products of consistent quality.	0	0.5	2.5	37.0	60.0	4.57	0.572
PQ3	Apple provides very reliable products.	0	0.5	3.0	40.5	56.0	4.52	0.584

*Source: Developed for research*

From Table 4.7, the statement "Apple provides products of consistent quality" resulted in the highest mean value of 4.57, and the lowest standard deviation value of 0.572, ranked 3. However, the statement "Apple provides very reliable products" obtained the lowest mean value deviation of 4.52, and the highest standard deviation value of 0.584.

From the analysis in Table 4.7, most of the respondents strongly agreed with all the statements, including 57.5% for the statement "Apple provides good quality products," 60% for the statement "Apple provides products of consistent quality," and 56% for the statement "Apple provides very reliable products."

**Table 4.8: Central Tendencies Measurement for Perceived Value**

Variable	Statement	SD	D	N	A	SA	Mean	Standard Deviation
PV1	Apple products are good value for money.	0.5	1.5	7.5	44.5	46.0	4.34	0.726
PV2	Apple products are good choice as all things considered (such as price, quality, security, efficiency and after sale services).	0	1.0	7.5	47.0	44.5	4.35	0.663
PV3	I believe my money is worth for what I spend for Apple products.	0	0.5	4.5	46.5	48.5	4.43	0.606

Source: *Developed for research*

Indicated from Table 4.8, the statement “I believe my money is worth for what I spend for Apple products” has the highest mean value of 4.43 with the lowest standard deviation value of 0.606, ranked 3 in the list. Besides, the statement “Apple products are good value for money” had the lowest mean value of 4.34, with the highest standard deviation value of 0.726. Besides, 46% of the respondents strongly agreed for the



statement “Apple products are good value for money”, 47% of respondents agreed for the statement “Apple products are good choice as all things considered (such as price, quality, security, efficiency and after sale services)”, and 48.5% of respondents strongly agreed with the statement “I believe my money is worth for what I spend for Apple products”.

**Table 4.9: Central Tendencies Measurement for Brand Personality**

<b>Variable</b>	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>Standard Deviation</b>
BP1	Apple products are interesting.	0	0	2.0	44.5	53.5	4.52	0.540
BP2	Apple products are attractive.	0	0	3.0	35.0	62.0	4.59	0.551
BP3	Apple products are up to date.	0	0	4.0	41.5	54.5	4.51	0.576
BP4	Apple products are elegances.	0	0	4.5	32.5	63.0	4.59	0.578

*Source: Developed for research*

The measurement for brand personality is listed in Table 4.9. Based on the results, the statements "Apple products are attractive" and "Apple products are elegances" had the highest mean value of 4.59, both ranked 1. Next, the statement "Apple products are up to date" had the lowest mean value of 4.51. Furthermore, most of the respondents strongly agreed with all statements, which included 53.5% for the statement "Apple products are interesting," 62% for the statement "Apple products are attractive," 54.5% for the statement "Apple products are up to date," and 63% for the statement "Apple products are elegant."

**Table 4.10: Central Tendencies Measurement for Organization Associations**

<b>Variable</b>	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>Standard Deviation</b>
OA1	I trust the company which produce Apple products.	0	0	6.5	45.5	48.0	4.42	0.612
OA2	I prefer the company which produce Apple products.	0	0	8.0	43.0	49.0	4.41	0.636
OA3	The company that produces Apple products are reputable.	0	0	6.0	37.0	57.0	4.51	0.610

*Source: Developed for research*

Based on Table 4.10, it indicated the descriptive analysis, which included the mean score, standard deviation, and percentage score of organization associations. The highest mean was scored under the statement "The company that produces Apple products are reputable" with a score of 4.51. Whereas the lowest mean score was the statement "I prefer the company which produce Apple products" with a 4.41. Also, the majority of respondents strongly agreed with all the statements, with 48% for the statement "I trust the company which produce Apple products", 49% for the statement "I prefer the company which produce Apple products", and 57% for the statement "The company that produces Apple products are reputable".

**Table 4.11: Central Tendencies Measurement for Brand Uniqueness**

<b>Variable</b>	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>Standard Deviation</b>
BU1	Apple products are special from other brands.	0	0	5.5	36.0	58.5	4.53	0.601
BU2	Apple products really stand out from other brands.	0	0.5	2.0	33.0	64.5	4.62	0.555
BU3	Apple products are unique from other brands.	0	0.5	3.5	31.5	64.5	4.60	0.585

*Source: Developed for research*

As indicated from Table 4.11, the descriptive analysis, which includes the mean score, standard deviation, and percentage score of brand uniqueness, was conducted. The highest mean was scored under the statement "Apple products really stand out from other brands" with 4.62. Whereas the lowest mean score was the statement "Apple products are special from other brands" with 4.53. From the analysis from Table 4.11, the majority of respondents strongly agreed with all statements, which included 58.5% for the statement "Apple products are special from other brands," 64.5% for the statement "Apple products really stand out from other brands," and "Apple products are unique from other brands."

**Table 4.12: Overall Central Tendencies Measurement for All Variables**

		<b>BL</b>	<b>BA</b>	<b>PQ</b>	<b>PV</b>	<b>BP</b>	<b>OA</b>	<b>BU</b>
N	Valid	200	200	200	200	200	200	200
	Missing	17	17	17	17	17	17	17
Mean		4.42	4.51	4.54	4.37	4.55	4.45	4.58
Standard Deviation		.719	.609	.577	.665	.561	.619	.580

**Note: \*Five-points scale: 1=Strongly Disagree; 5=Strongly Agree**

*Source: Developed for the research*

## 4.3 Scale Measurement

### 4.3.1 Reliability Test

**Table 4.13: Summary of Reliability Test**

<b>No.</b>	<b>Variables</b>	<b>Cronbach's Alpha</b>	<b>No. of Items</b>
1	Brand Loyalty	0.758	3
2	Brand Awareness	0.706	3
3	Perceived Quality	0.760	3
4	Perceived Value	0.759	3
5	Brand Personality	0.727	4
6	Brand Associations	0.782	3
7	Brand Uniqueness	0.760	3
Overall		0.750	3

*Source: Developed for research*

According to Table 4.12, all the variables' results are greater than 0.70, which is considered reliable and consistent. Besides, all the variables are within the range of Cronbach's Alpha, between 0.7 and 0.9, which indicates good reliability (Zikmund et al., 2010). In this research, the highest Cronbach's Alpha value is for brand associations, which is 0.782. Therefore, all variables are accepted since they are reliable in this research study.

## 4.4 Inferential Analysis

As a statistical model for examining and analyzing data, inferential analysis offers population generalization based on gathered samples. In this research, the connection between the independent factors and the dependent variable was investigated using the Multiple Regression Analysis.

### 4.4.1 Multiple Linear Regression

**Table 4.14: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723 <sup>a</sup>	.523	.506	.35919

a. Predictors: (Constant), BA, PQ, PV, BP, OA, BU)

Source: *Developed for research*

According to Table 4.14, it indicated that the independent variables (brand awareness, perceived quality, perceived value, brand personality, brand associations, and brand uniqueness) have a positive influence on the dependent variable (brand loyalty) with an R-value of 0.723. Moreover, it also shows that the value for adjusted R Square is 0.523, which means that 52.3% of brand loyalty for Apple product users was illustrated by the six independent variables. The remaining 35.92% variation is not examined in this study since it is affected by other factors. Therefore, there are additional unknown factors that will have an impact on the brand loyalty of Apple product users.

**Table 4.15: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.400	6	4.076	31.441	.000 <sup>b</sup>
	Residual	22.376	173	.129		
	Total	46.775	179			

- a. Dependent Variable: BL
- b. Predictors: (Constant), BA, PQ, PV, BP, OA, BU

Source: *Developed for research*

Based on Table 4.14 above, the F-test value of 31.441 is significant at P=0.000 (P<0.05). Hence, the model's fitness is determined. The overall regression model, which includes six independent variables (brand awareness, perceived quality, perceived value, brand personality, organization association, and brand uniqueness), accurately summarizes the rationale for variance in brand loyalty of Apple product users.

**Table 4.16: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.183	.579		-.316	.752
	BA	.426	.067	.395	6.313	.000
	PQ	.060	.069	.052	.872	.385
	PV	.249	.062	.258	4.027	.000
	BP	.249	.118	.130	2.104	.037
	OA	-.126	.098	-.070	-1.281	.202
	BU	.189	.089	.135	2.122	.035

a. Dependent Variable: BL

*Source: Developed for research*

Based on Table 4.16 above, it indicated that brand awareness, perceived value, brand personality, and brand uniqueness have p-values that are lower than 0.05. This means that they have a positive relationship with brand loyalty among Apple product users. For another independent variable that are perceived quality and organization associations shown insignificance relationship towards brand loyalty of Apple product users as their p-value is greater than 0.05, which is 0.385 and 0.202 respectively.

Based on the findings from Table 4.15, the linear equation is conducted as below:

$$Y = -0.183 + 0.426 (BA) + 0.060 (PQ) + 0.249 (PV) + 0.249 (BP) + (-0.126) (OA) + 0.189 (BU)$$

Where,

Y= Brand Loyalty

BA= Brand Awareness

PQ= Perceived Quality

PV= Perceived Value

BP= Brand Personality

BA= Brand Associations

BU= Brand Uniqueness

The formula's objective is to determine which of the predictor's accounts for the majority of the variation in brand loyalty for Apple product users. Based on the finding above, it can be concluded that brand awareness has the greatest predictor estimates (0.426), indicating that the variation of brand awareness is largely predicted by brand loyalty.

Besides, perceived value and brand personality, which are 0.249 that contribute to the second largest variance in brand loyalty, implying that perceived value and brand personality can be the second strongest predictor to explain the variation in brand loyalty.

Moreover, brand uniqueness is the third greater predictor of brand loyalty variation, with a parameter estimate value of 0.189, indicating that it can least explain brand loyalty variance, followed by perceived quality (0.060). Lastly, organization association is the lower predictor of brand loyalty changes due to its estimated value is -0.126.



#### **4.4.2 Hypothesis Testing**

In this research, six hypotheses have been generated to investigate, and the recommended hypotheses are as follows:

*H1:* There is a significant relationship between brand awareness and brand loyalty.

*H2:* There is a significant relationship between perceived quality and brand loyalty.

*H3:* There is a significant relationship between perceived value and brand loyalty.

*H4:* There is a significant relationship between brand personality and brand loyalty.

*H5:* There is a significant relationship between organization association and brand loyalty.

*H6:* There is a significant relationship between brand uniqueness and brand loyalty.

## **CHAPTER 5: DISCUSSION, IMPLICATION AND CONCLUSION**

### **5.0 Introduction**

The statistical analysis, which comprised descriptive and inferential analytical interpretation, as well as the theoretical and managerial implications of the study's findings, will be summarized in Chapter 5. Besides, this chapter also include limitation of study, recommendations, and conclusion for further research purpose.

### **5.1 Summary of Statistical Analysis**

According to the results of the study, there are 200 respondents were Apple product users, and the researcher could summarize those 102 respondents were male, while the remaining 98 respondents were female. Furthermore, the researcher discovered that among 200 respondents, the majority age group was between the ages of 20 to 29, accounting for 66 (33%) of the total respondents, whereas the age group of 30 to 39 years old has 26.5%, which represents 53 respondents, followed by the age group of 40 to 49 years old, which has 36 respondents (18%), and the age group of 50 and above has 36 respondents. Only 14 respondents in the minority age group of 19 and below responded to the survey. The survey questionnaires were distributed equally among Malaysians who are Apple product users. 70 respondents (35%) are students, followed by employed status, which involves 69 respondents (34.5%), while self-employed status has 61 respondents (30.5%) respectively.

Moreover, there are 30% of respondents' income per month is comprised of no income (students), whereas 27% of respondents have a monthly salary ranging from RM4000 to RM9999. Following that, 21% of respondents have a monthly income of RM10,000 or above, and 13% of respondents have a monthly income of RM2000 to RM3999. Lastly, only 9% of respondents have a monthly salary of less than RM1999. For the general question, the researchers found that the respondents have been using Apple products for 3 to 4 years, followed by 5 to 6 years, 1 to 2 years, and 7 years and above, accounting for 31.5%, 30.5%, 20%, and 18%, respectively.

Besides, the central tendency for the summary of means and standard deviation for all variables in this study is as follows. The average for all of the respondents' answers to "agree" and "strongly agree" options in the research questions was 4.3 to 4.58, and the standard deviation was also in the range of 0.5 to 0.7, indicating that the data was well spread to the mean and proving that the majority of the respondents agreed and strongly agreed with the statements in the survey questionnaires.

In addition, the researcher performed a reliability test on each variable. The Cronbach's alpha was calculated, and the overall result was 0.75. According to Zikmund (2013), when the Cronbach's alpha is 0.6 or above, the variables are dependable. According to the reliability test done, the Cronbach's Alpha is 0.75, indicating that variables are trustworthy and suitable in this research.

On the other hand, the coefficient of determination value ( $R^2$ ) for the brand loyalty of Apple product users is 0.523. This means that six independent factors explained 52.3% of Apple product users' brand loyalty. Consequently, the findings indicate that the independent variables and dependent variable have a moderate linear relationship.

## **5.2 Discussion of Major Findings**

### **5.2.1 Relationship between Brand Awareness and Brand Loyalty of Apple Product Users**

Based on the significance level analysis, the results indicated a p-value of 0.000, which is less than 0.05. Hence, H1 is accepted as there is a significant relationship between brand awareness and brand loyalty among Apple product users.

From the research of Harith, Zulfakar, Sanin, and Ahmad, they discovered that brand awareness has a significant positive impact on the brand equity (brand loyalty) of the iPhone. They also revealed that brand awareness will influence consumers' choices towards Apple smartphones. Therefore, the outcome of the study is acceptable, and the brand awareness has a significant relationship with the brand loyalty of Apple product users.

### **5.2.2 Relationship between Perceived Quality and Brand Loyalty of Apple Product Users**

Based on the significance level analysis, the results showed a p-value of 0.385, which is greater than 0.05. Hence, H2 is rejected as there is an insignificant relationship between perceived quality and brand loyalty of Apple product users.

According to Forsido (2012), perceived quality has no significant effect on Apple brand loyalty. He also stated that the quality of mobile phones is not an important factor in making decisions as consumers do not believe that a well-known brand is necessarily superior in quality than a lesser-known brand, even if they prefer to buy branded products as they generally come with more features (Akkucuk & Esmaeili, 2016).

### **5.2.3 Relationship between Perceived Value and Brand Loyalty of Apple Product Users**

Based on the significance level analysis, the results revealed that the p-value is  $0.000 < 0.05$ . Hence, H3 is accepted as there is a significant relationship between perceived value and brand loyalty among Apple product users.

From the research of Wu and Ho (2014), they found that perceived value will directly impact on the purchase intention of iPhone. In other words, when perceived value is high, brand loyalty will also rise. Therefore, the findings from the study are acceptable, and the perceived value has a significant association with brand loyalty among Apple product users.

#### **5.2.4 Relationship between Brand Personality and Brand Loyalty of Apple Product Users**

Based on the significance level analysis, the results indicated that the p-value is 0.037, which is less than 0.05. Hence, H4 is accepted as there is a significant relationship between brand personality and brand loyalty among Apple product users.

According to Tangsritrakul and Anantachart (2019), brand personality has a substantial beneficial influence on brand loyalty, which has been proven, and brand personality can lead to brand loyalty. Furthermore, a brand's personality is a valuable asset for distinguishing it from its competitors. As a result, the study's findings are acceptable, and brand personality has a significant relationship with brand loyalty among Apple product users.

#### **5.2.5 Relationship between Brand Association and Brand Loyalty of Apple Product Users**

Based on the significance level analysis, the results showed a p-value of 0.202, which is more than 0.05. Thus, H5 is rejected as there is an insignificant relationship between brand associations and brand loyalty of Apple product users.

Oyenuga, Ahungwa, and Onojia (2021) stated that brand association has a positive and less influence on brand loyalty. From the respondents' perspective,

many of them think brand association is not an important factor that strongly influences the brand loyalty of Apple product users. Hence, this outcome of the research was rejected since there is an insignificant relationship with the brand loyalty of Apple product users.

### **5.2.6 Relationship between Brand Uniqueness and Brand Loyalty of Apple Product Users**

Based on the significance level analysis, the results indicated a p-value of 0.035, which is lower than 0.05. Hence, H6 is accepted as there is a significant relationship between brand uniqueness and brand loyalty among Apple product users.

From the research of Chansuk and Chaipoopirutana (2020), brand uniqueness has a significant direct effect on brand loyalty by encouraging consumers to repurchase in the future. Moreover, apple product users agree that the brand is distinct from competitors. Therefore, customers are willing to pay premium prices for a well-known brand. So, this outcome from the study is acceptable, and brand uniqueness has a significant relationship with brand loyalty among Apple product users.

## **5.3 Implications of study**

### **5.3.1 Managerial Implication**

The findings have significant implications for brand managers in the consumer electronics industry. Consumer electronics manufacturers are currently facing the most intense competition, and the obstacles are increasing as time passes. According to Euromonitor (2018), the smartphone industry has grown at an incredible rate, with growth rates of 20 to 30% in various nations over the previous five years. Therefore, it is important to have a deeper understanding of why and when consumers remain loyal to a brand and what factors enhance that loyalty. The study's major findings have significant management implications for marketing operators and brand managers in developing a promotion and marketing plan to improve brand loyalty and satisfaction. From a managerial perspective, the managers, and marketers must simultaneously work on brand loyalty by focusing on how the brand is superior to its competitors.

Moreover, researchers who seek to analyze the elements that influence brand loyalty of Apple product users in the future may gain from this study. They can use the factors from this study as a starting point for their own research. From the study, brand awareness, perceived value, brand personality, and brand uniqueness are all crucial variables. However, the other variables, such as perceived quality and brand associations, have less impact on the brand loyalty of Apple product users. As a result, future research should exclude the terms "perceived quality" and "organization associations" as variables or evaluate alternative variables that could influence Apple product users' brand loyalty.



## **5.4 Limitations and Recommendation of the study**

As with any research, the study presented had several limitations that should be considered in future studies. To begin with, there is a sample size constraint; the results are based on a sample of 200 respondents, which is not a large sample. This makes it difficult to extrapolate the findings to other Malaysian situations. Therefore, future researchers are recommended to obtain sample sizes of 300 to 500 respondents in order to obtain more representative views and an equitable distribution of questionnaire surveys across different age groups, as different sample sizes may elicit different responses from the target respondents.

Secondly, limited local resources are also one of the limitations of this research. The majority of research is from other countries and is centered around smartphones only. Hence, researchers are encouraged to investigate other Apple products other than the iPhone, such as AirPods, iPads, MacBooks, and so on. This is due to the fact that various study objects may provide different outcomes, and different target industries may also have different research outcomes. Therefore, it is proposed that future research examine other industries to test and validate the conceptual framework of this study once again. Last but not least, future research should look at additional variables such as price, brand prestige, brand heritage, and advertising as direct antecedents of brand loyalty.

## **5.5 Conclusion**

The researcher summarized all the previous chapters analyzes and findings. Based on the discussion in this chapter, all of the independent variables (brand awareness, perceived value, brand personality, and brand uniqueness) are directly related to the dependent variable (brand loyalty) and linked to some previous study. On the other hand, independent variables which are perceived quality and organization associations have insignificant relationships towards brand loyalty of Apple product users. Besides, the researcher has the potential to develop managerial implications for society, institutions, and future researchers to replicate the study's findings. Finally, future researchers were given recommendations and platforms.

## REFERENCE

- Aaker, D.A. (1991), *Managing Brand Equity: Capitalizing on the Value of a Brand Name*, The Free Press, New York, NY.
- Aaker, D. A. (1992). The value of brand equity. *Journal of business strategy*.
- Aaker, D.A. & Biel, A. L. (1993). *Brand equity and advertising: Advertising's role in building strong brands*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of marketing research*, 34(3), 347-356.
- Akkucuk, U., & Esmaeili, J. (2016). The impact of brands on consumer buying behavior: An empirical study on smartphone buyers. *International Journal of Research in Business and Social Science* (2147-4478), 5(4), 1-16.
- Alhaddad, A. (2015). Perceived quality, brand image and brand trust as determinants of brand loyalty. *Journal of Research in Business and Management*, 3(4), 01-08.
- Apple reports fourth quarter results*. Apple Newsroom. (2021). <https://www.apple.com/newsroom/2020/10/apple-reports-fourth-quarter-results/>.
- Ashraf, S., Ilyas, R., Imtiaz, M., & Ahmad, S. (2018). Impact of service quality, corporate image and perceived value on brand loyalty with presence and absence of customer satisfaction: A study of four service sectors of Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 8(2), 452-474.
- Assael, Henry (1998), *Consumer Behavior and Marketing Action*. Cincinnati, OH: South-Western
- Azoulay, A. & Kapferer, J.N. (2003). Do brand personality scales really measure brand personality? *Journal of Brand Management*, 11(2), 143-155.
- Burns, N., & Grove, S. K. (2003). *Understanding Nursing Research* (3rd ed.). Philadelphia: Saunders.
- Can, Y., & Erdil, O. (2018). Determining Antecedent of Re-Purchase Intention: The Role of Perceived Value and Consumer's Interest Factor. *International Business Research*, 11(4), 17-31.

- Center for Innovation in Research and Teaching. (2018). *An overview of quantitative research*. Retrieved Aug 21, 2019, from [https://cirt.gcu.edu/research/developmentresources/research\\_ready/quantresearch/overview\\_quant](https://cirt.gcu.edu/research/developmentresources/research_ready/quantresearch/overview_quant)
- Chansuk, S., & Chaipoopirutana, S. (2020). An integrated model of influence of perceived quality, perceived value, brand association, brand awareness and brand uniqueness on brand loyalty towards a luxury brand in Bangkok, Thailand. In *AU Virtual International Conference Entrepreneurship and Sustainability in the Digital Era* (Vol. 1, No. 1, pp. 477-489).
- Chapman, K., Lawless, H., & Boor, K. (2001). Quantitative Descriptive Analysis and Principal Component Analysis for Sensory Characterization of Ultrapasteurized Milk. *Journal of Dairy Science*, 84(1), 12–20. doi: 10.3168/jds.s0022-0302(01)74446-3
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing*, 65(2), 81-93.
- Chithrasekara, G. J. H., & Karandakatiya, T. K. (2019). Effect of Brand Equity on Consumer Buying Behavior of Huawei Brand in Colombo Area. *Wayamba Journal of Management*, 10(1).
- Consumer Electronics - Malaysia: Statista market forecast*. Statista. (2021). <https://www.statista.com/outlook/dmo/ecommerce/electronics-media/consumer-electronics/malaysia>.
- Dehghani, M., & Kim, K. J. (2019). The effects of design, size, and uniqueness of smartwatches: perspectives from current versus potential users. *Behaviour & Information Technology*, 38(11), 1143-1153.
- Doolan, D. M., & Froelicher, E. S. (2009). Using an existing data set to answer new research questions: A methodological review. *Research and Theory for Nursing Practice: An International Journal*, 23(3), 203-215. doi:10.1891/1541-6577.23.3.203
- Euromonitor, (2018), Retrieved from <https://www.euromonitor.com/malaysia>
- Farjam, S., & Hongyi, X. (2015). Reviewing the concept of brand equity and evaluating consumer-based brand equity (CBBE) models. *International Journal of Management Science and Business Administration*, 1(8), 14-29.
- Farquhar, P.H. (1989), “Managing brand equity”, *Marketing Research*, Vol. 1 No. 3, pp. 24-33.

- Forsido, M. Z. (2012). Brand loyalty in Smartphone.
- Garanti, Z., & Kissi, P. S. (2019). The effects of social media brand personality on brand loyalty in the Latvian banking industry: The mediating role of brand equity. *International Journal of Bank Marketing*.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-607.
- Harith, N. F. A. A., Zulfakar, M. Z., Sanin, H., & Ahmad, A. H. BRAND EQUITY DETERMINANTS AND CONSUMERS CHOICES OF SMARTPHONE: A CASE OF IPHONE'S USERS IN KUALA LUMPUR.
- Hassan, Z. A., Schattber, P., & Mazza, D. (2006). Doing a pilot study: Why is it essential? *Malaysian Family Physician: The Official Journal of the Academy of Family Physicians of Malaysia*, 1(2-3), 70-73.
- Hokky, L. A., & Bernarto, I. (2021). The Role of Brand Trust and Brand Image on Brand Loyalty on Apple iPhone Smartphone Users in DKI Jakarta. *Enrichment: Journal of Management*, 12(1), 474-482.
- Hisamudin, H. A. (2020). *Demand for used laptops rises with work-from-home order*. FMT. <https://www.freemalaysiatoday.com/category/nation/2020/12/11/demand-for-used-laptops-rises-with-work-from-home-order/>.
- Inthasang, C., & Thiamjite, P. (2021). Relationship between of Brand Equity and Customer Loyalty: A Test Customer Satisfaction as Mediator. *Journal of Humanities and Social Sciences Thonburi University*, 15(3), 25-36.
- Keller, K.L. (1993), "Conceptualizing, measuring, and managing customer-based brand equity", *Journal of Marketing*, Vol. 57 No. 1, pp. 1-22.
- Keller K.L. *Strategic Brand Management*. N.J.: Prentice Hall, Upper Saddle River, 2003.
- Keller, Kevin L. and Donald R. Lehmann (2003), "How Do Brand Create Value," *Marketing Management*, 2003 (May), (26-31).
- Kim, J., Jeong, B., & Kim, D. (2021). Who Drives Innovation? Apple. In *Patent Analytics* (pp. 139-148). Springer, Singapore.
- Kim, J., Lee, H., & Lee, J. (2020). Smartphone preferences and brand loyalty: A discrete choice model reflecting the reference point and peer effect. *Journal of Retailing and Consumer Services*, 52, 101907.

- Krishnaprabha, S., & Tarunika, R. (2020). An Analysis on building Brand Awareness through Digital Marketing Initiatives. *International Journal of Research in Engineering, Science and Management*, 3(7), 266-270.
- Keshavarz, Y., & Jamshidi, D. (2018). Service quality evaluation and the mediating role of perceived value and customer satisfaction in customer loyalty. *International Journal of Tourism Cities*.
- Li, J., Zeng, X., & Stevels, A. (2015). Ecodesign in consumer electronics: Past, present, and future. *Critical Reviews in Environmental Science and Technology*, 45(8), 840-860.
- Li, Y. (2021). Apple Inc. Analysis and Forecast Evaluation. *Proceedings of Business and Economic Studies*, 4(4), 71-78.
- Lietz, P. (2010). Research into questionnaire design: A summary of the literature. *International journal of market research*, 52(2), 249-272.
- Losby, J., & Wetmore, A., 2012. CDC Coffee Break: using Likert Scales in Evaluation Survey Work. National Centre for Chronic Disease Prevention and Health Pro
- Marmaya, N. H., Razak, N. A., Alias, N. E., Karim, R. A., Saari, J. R., Borhan, H., ... & Salim, S. M. (2019). Generation Y's Brand Loyalty for Smartphone in Malaysia. *INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES*, 9(10).
- Macdonald EK, Sharp BM. Brand awareness effects on consumer decision making for a common, repeat purchase product: A replication. *J Bus Res*. 2000; 48(1): 5–15.
- Malhotra, N. K. (2006). Questionnaire design and scale development. *The handbook of marketing research: Uses, misuses, and future advances*, 83-94.
- Malhotra, N. K., Kim, S. S., and Patil, A. 2006. "Common Method Variance in IS Research: A Comparison of Alternative Approaches and Reanalysis of Past Research," *Management Science* (52:12), pp. 1865-1883.
- Mazlan, S., Ariffin, S., Aziz, Z. D., & Yusof, J. M. (2016). Factors affecting purchase intention of iPhone among business students in UiTM Puncak Alam, Selangor. *International Academic Research Journal of Business and Technology*, 2(2), 57-62.
- McDougall, G. H., & Levesque, T. (2000). Customer satisfaction with services: putting perceived value into the equation. *Journal of services marketing*.
- Mouton, J. 2001. How to succeed in your master's & doctoral studies: a South African guide and resource book. Pretoria: Van Schaik.

- Müller, J. (2021). *Malaysia: Electrical and electronics industry sales value 2018*. Statista. <https://www.statista.com/statistics/940552/malaysia-electrical-and-electronics-industry-sales-value/>.
- Müller, J. (2021). *Malaysia: Mobile market share*. Statista. <https://www.statista.com/statistics/938729/malaysia-market-share-of-leading-mobile-brands/>.
- Nathans, L. L., Oswald, F. L., & Nimon, K. (2012). Interpreting multiple linear regression: a guidebook of variable importance. *Practical assessment, research & evaluation, 17*(9), n9.
- Netemeyer, R.G., Krishnan, B., Pullig, C., Wang, G., Yagci, M., Dean, D., Ricks, J. and Wirth, F. (2004), “Developing and validating measures of facets of customer-based brand equity”, *Journal of Business Research*, Vol. 57 No. 2, pp. 209-224.
- Neville, C. (2007). Introduction to Research and Research Methods. Retrieved from <http://www.brad.ac.uk/management/media/management/els/Introduction-toResearchand-Research-Methods.pdf>
- Nikhashemi, S.R. and Valaei, N. (2018), “The chain of effects from brand personality and functional congruity to stages of brand loyalty: the moderating role of gender”, *Asia Pacific Journal of Marketing and Logistics*, Vol. 30 No. 1, pp. 84-105.
- Oliver RL. Satisfaction: A behavioral perspective on the consumer. New York, NY: McGraw Hill; 1997.
- Oyenuga, M., Ahungwa, A., & Onoja, E. (2021). Effect of Brand Equity on Consumer Behaviour Among Students of Veritas University, Nigeria: A Study of Apple Smartphones. *Marketing and Branding Research, 8*(1), 48-64.
- Parahoo, K. (1997). *Nursing Research: Principles, Process and Issues*. Basingstoke: Macmillan.
- Pinson, C., & Brodahl, D. J. (2014). The Church of Mac: Exploratory examination on the loyalty of Apple customers. *Journal of Management and Marketing Research, 14*, 1.
- Pratama, H., & Suprpto, B. (2017). The effect of brand image, price, and brand awareness on brand loyalty: The rule of customer satisfaction as a mediating variable. *Global Journal of Business & Social Science Review, 5*(2), 52-57.
- Phong, L., Nga, T., Hanh, N., & Minh, N. (2020). Relationship between brand association and customer loyalty: The case of online retail industry. *Management Science Letters, 10*(7), 1543-1552.

- Reji, K. G. (2011). A Study on Linkage between Customer Expectation, Service Quality Perception, Customer Satisfaction and Related Behavioral Intentions in Banking Context. (Faculty of Management Studies, Anna University, Coimbatore, Indian). Retrieved from <http://hdl.handle.net/10603/26470>
- Romaniuk, J., & Nenycz-Thiel, M. (2013). Behavioral brand loyalty and consumer brand associations. *Journal of Business Research*, 66(1), 67-72.
- Ruiz, E. H., Restrepo, C. A. P., Lopez, C. A., & Kee, D. M. H. (2020). Samsung: Customer loyalty strategy in Malaysia and Colombia. *International Journal of Accounting & Finance in Asia Pasific (IJAFAP)*, 3(2), 57-67.
- Saleem, S., & Omar, R. M. (2015). Measuring customer-based beverage brand equity: Investigating the relationship between perceived quality, brand awareness, brand image, and brand loyalty.
- Sanjaya, W., Asdar, M., & Munir, A. R. (2020). The Effect of Brand Image, Brand Experience and Brand Loyalty towards Purchase Intention on Apple Smartphone in Makassar. *Hasanuddin Journal of Business Strategy*, 2(3), 63-71.
- Sekaran, U. (2003). *Research methods for business: A skill building approach* (4<sup>th</sup>ed.). New York: John Wiley & Sons, Inc.
- Sekaran, U., & Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach* (5th ed.). John Wiley & Sons.
- Selltiz, C., & Society for the Psychological Study of Social Issues. (1965). *Research methods in social relations: [by] Claire Selltiz [et al.]*. New York: Holt, Rinehart and Winston.
- Servera-Francés, D., & Piqueras-Tomás, L. (2019). The effects of corporate social responsibility on consumer loyalty through consumer perceived value. *Economic research-Ekonomska istraživanja*, 32(1), 66-84.
- Sharma, R. (2017). Building customer-based brand equity of domestic brands: Role of brand equity dimensions. *Metamorphosis*, 16(1), 45-59.
- Sheard, J. (2018). Quantitative data analysis. In K. Williamson, & G. Johanson (Eds.), *Research Methods: Information, Systems, and Contexts*, Second Edition (2nd ed., pp. 429-452). Cambridge MA USA: Elsevier. <https://doi.org/10.1016/B978-0-08-102220-7.00018-2>
- Shekhar Singh, A. (2014). Conducting case study research in non-profit organizations. *Qualitative Market Research: An International Journal*, 17(1), 77-84.
- Shepard, R.J. (2002). Ethics in exercise science research. *Sports Med*, 32 (3): 169-183.



- Shuttleworth, M. (2008). Descriptive Research Design. Retrieved from Explorable: <https://explorable.com/descriptive-research-design>
- Su, J. Chang, A., (2018). Factors affecting college students' brand loyalty toward fast fashion: A consumer-based brand equity approach. *International Journal of Retail & Distribution Management*, <https://doi.org/10.1108/IJRDM-01-2016-0015>
- Statista Research Department. (2021). *Most Valuable Brands Worldwide 2021*. Statista. <https://www.statista.com/statistics/264875/brand-value-of-the-25-most-valuable-brands/>.
- Syed Muhammad Sajjad Kabir, (2016). SAMPLE AND SAMPLING DESIGNS. Retrieved from <https://www.researchgate.net/publication/325846997>
- Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research. *How to Choose a Sampling Technique for Research (April 10, 2016)*.
- Tangsitrakul, N., & Anantachart, S. (2019). Relating brand personality with customers' brand experience: A case of apple brand in Thailand. *Communication and Media in Asia Pacific (CMAP)*, 2(2), 27-54.
- Tohir, A. S., & Nugroho, A. (2018, November). Consumer Brand Loyalty of Fast Fashion Brands of Young Consumers in Indonesia. In *International Conference on Business, Economic, Social Science and Humanities (ICOBEST 2018)* (pp. 441-445). Atlantis Press.
- TUZCUOĞLU, A., FAYDA, S. N., TUNIAZI, Y., & Zübeyde, Ö. Z. (2018). DO THE EFFECTS OF BRAND PERSONALITY DIMENSIONS ON BRAND LOYALTY CHANGE ACCORDING TO CONSUMERS' PERSONALITIES? *Turkish Journal of Marketing*, 3(2), 84-107.
- University of Southern California Libraries. (2016). *Organizing your social sciences research paper: Types of research designs*. From <https://www.afidep.org/wp-content/uploads/2016/08/Module-3-Handout-1-12-Major-Types-of-Research-Designs.pdf>
- Van, T. E., Rennie, A. M., Hundley, V. & Graham, W. (2001), The importance of conducting and reporting pilot studies: the example of the Scottish Births Survey, *Journal of Advanced Nursing* 34: 289-295.
- Vailshery, L. S. (2021). *Sales of the leading Consumer Electronic (CE) companies worldwide 2021*. Statista. <https://www.statista.com/statistics/431431/sales-of-the-leading-ce-companies-worldwide/>.
- Wright, S., O'Brien, B. C., Nimmon, L., Law, M., & Mylopoulos, M. (2016). Research design considerations. *Journal of Graduate Medical Education*, 8(1), 97-98.

- Wu, S. I., & Ho, L. P. (2014). The influence of perceived innovation and brand awareness on purchase intention of innovation product—an example of iPhone. *International Journal of Innovation and Technology Management*, 11(04), 1450026.
- Yamawati, S., & Indiani, N. L. P. (2019). The Influence of Brand Equity on Consumer Interest in Buying Xiaomi Smartphones. *Warmadewa Management and Business Journal (WMBJ)*, 1(2), 60-64.
- Zeithaml, V.A. (1988) 'Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence', *Journal of Marketing* 52(3): 2–22.
- Zia, A., Younus, S., & Mirza, F. (2021). Investigating the Impact of Brand Image and Brand Loyalty on Brand Equity: The Mediating Role of Brand Awareness. *International Journal of Innovation, Creativity and Change*, 15(2), 1091-1106.
- Zikmund, W. G. (2003). *Business Research Methods* (7th ed.). Cengage Learning.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Ohio: South-Western Pub.
- Zikmund, W. G., Babin, B. J., Carr, J.C. & Griffin, M. (2013). *Business research methods* (9th ed.). New York: Southwestern/ Cengage Learning.
- Zikmund, W. G., DAlessandro, S., Winzar, H., Lowe, B., & Babin, B. (2017). Retrieved from *Marketing research: Asia-Pacific edition*. South Melbourne, Victoria: Cengage Learning

APPENDICES

**Appendix A**

**UNIVERSITI TUNKU ABDUL RAHMAN**  
**Faculty of Accountancy and Management**  
**BACHELOR OF INTERNATIONAL BUSINESS (HONS)**  
**UKMZ3016 RESEARCH PROJECT**

**A STUDY OF CONSUMER BRAND LOYALTY OF APPLE PRODUCTS IN  
MALAYSIA**

**SURVEY QUESTIONNAIRE**

---

Dear respondent,

I am a final year undergraduate student of Bachelor of International Business (Hons), from Universiti Tunku Abdul Rahman (UTAR). The main objective of this survey is to conduct a research to examine the consumer brand loyalty of Apple products in Malaysia.

Kindly fill up all the questions to the best of your knowledge. There are no absolute answers or wrong responses to any of these statements. I guarantee that all responses will be kept completely confidential.

Thank you for your participation.

---

Instructions:

1. There are **THREE (3)** sections in this questionnaire. Please answer **ALL** questions.
2. Completion of this form will take you approximately to 5 to 10 minutes.

3. Please feel free to share your comments in the space provided. The contents of this questionnaire will be kept **strictly confidential**.

### Section A: General Questions

Please tick (✓) the following answer box for each question.

1. Are you an Apple products' user?

Yes

No

2. What Apple product(s) have you bought?

iPhone

iPad

MacBook

Apple Watch

AirPods

HomePod

Apple TV

Apple pencil

Magic/ Smart Keyboard

3. How many years you have been using Apple product(s).

1-2 years

3-4 years

4-5 years

6 years and above

## Section B: Demographic Profile

Please tick (✓) the following answer box for each question.

1. Gender
  - Male
  - Female
  
2. Current Age
  - 19 and below
  - 20-29
  - 30-39
  - 40-49
  - 50 and above
  
3. Current Employment Status
  - Employed
  - Unemployed
  - Student
  
4. Monthly Income
  - No income [Student]
  - Less than RM1999
  - RM2000 to RM3999
  - RM4000 – RM9999
  - RM10,000 and above

**Section C**

Please indicate your degree of agreement on the following statements by circling the numbers given ranging from:

Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5

**Dependent Variable: Brand Loyalty to Apple Products**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
BR1	I am committed to being loyal to Apple products.	1	2	3	4	5
BR2	Apple products would be my first choice when considering smartphone, laptop etc.	1	2	3	4	5
BR3	I will continue buying Apple products.	1	2	3	4	5

**Independent Variable: (i) Brand Awareness**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
BA1	I am aware of Apple products.	1	2	3	4	5
BA2	When I think of the consumer electronics brand, Apple products come to mind.	1	2	3	4	5
BA3	I am very familiar with Apple products.	1	2	3	4	5

**ii) Perceived Quality**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
PQ1	Apple provide good quality products.	1	2	3	4	5
PQ2	Apple provides products of consistent quality.	1	2	3	4	5
PQ3	Apple provides very reliable products.	1	2	3	4	5

**(iii) Perceived Value**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
PV1	Apple products are good value for money.	1	2	3	4	5
PV2	Apple products are good choice as all things considered (such as price, quality, security, efficiency and after sale services).	1	2	3	4	5
PV3	I believe my money is worth for what I spend for Apple products.	1	2	3	4	5

**(iv) Brand Personality**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
BP1	Apple products are interesting.	1	2	3	4	5
BP2	Apple products are attractive.	1	2	3	4	5
BP3	Apple products are up to date.	1	2	3	4	5
BP4	Apple products are elegances.	1	2	3	4	5

**(v) Organization Associations**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
OA1	I trust the company which produce Apple products.	1	2	3	4	5
OA2	I prefer the company which produce Apple products.	1	2	3	4	5
OA3	The company that produces Apple products are reputable.	1	2	3	4	5



**(vi) Brand Uniqueness**

	Statement	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
BU1	Apple products are special from other brands.	1	2	3	4	5
BU2	Apple products really stand out from other brands.	1	2	3	4	5
BU3	Apple products are unique from other brands.	1	2	3	4	5

**Appendix B - SPSS**

Cronbach's Alpha of Pilot Test

Brand Loyalty

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.914	.932	3

Brand Awareness

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.780	.790	3

Perceived Quality

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.892	.896	3

Perceived Value

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.882	.889	3

Brand Personality

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.881	.883	4

Organization Associations

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.842	3

Brand Uniqueness

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.847	3

Reliability Test

Brand Loyalty

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.758	.765	3

Brand Awareness

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.706	.707	3

Perceived Quality

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.760	.759	3

Perceived Value

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.759	.764	3

Brand Personality

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.727	.728	4

Brand Association

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.783	3

Brand Uniqueness

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.760	.760	3

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723 <sup>a</sup>	.523	.506	.35919

a. Predictors: (Constant), BU, PQ, OA, BP, BA, PV

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.400	6	4.067	31.441	.000 <sup>b</sup>
	Residual	22.376	173	.129		
	Total	46.775	179			

a. Dependent Variable: BL

b. Predictors: (Constant), BU, OA, PQ, BP, BA, PV

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

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	-.183	.579		-.316	.752
	BA	.426	.067	.395	6.313	.000
	PQ	.060	.069	.052	.872	.385
	PV	.249	.062	.258	4.027	.000
	BP	.249	.118	.130	2.104	.037
	OA	-.126	.098	-.070	-1.281	.202
	BU	.189	.089	.135	2.122	.035

a. Dependent Variable: BL