

INFLUENCE OF PRODUCT ATTRIBUTES  
TOWARDS MOBILE PHONE PREFERENCE AMONG MILLENNIAL  
IN MELAKA

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This report is submitted in partial fulfilment of the requirement for the  
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(High Technology Marketing).

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## APPROVAL

I hereby acknowledged that I have read this report and in my point of view this is sufficient in terms of scope and quality for the submission and award of a **Bachelor Degree in Technology Management with Honours (High Technology Marketing)**.

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## DECLARATION

I, Irene Goh Yin Lan, declare that this thesis presented are my own and has been generated by me as the result of my own original research.

The work described in this Degree Thesis, entitled

**“Influence of Product Attributes towards Mobile Phone Preference  
among Millennial in Melaka”**

is the best of the author’s knowledge that of the author except where the due reference is made.

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## **DEDICATION**

To my beloved parents, brother and sister.

To my university, my supervisor and my friends.

Thank you.

## ACKNOWLEDGEMENT

I would like to extend my gratitude to my faculty supervisor, Encik Isma Addi Bin Jumbri for his valuable advice and guidance in completing this final year project. Thank you for providing me with the opportunity and inspiration to conduct this study, which has allowed me to gain an insight into the influence of product attributes towards mobile phone preferences among millennial in Melaka and understanding of consumer behaviour in Melaka towards the mobile phone market.

A special note of thanks is extended also to my family, friends, and those who have supported me along the way, especially to those who participated and completing the questionnaire.

I would also like to extend my deepest appreciation to my friends who willingly helped me throughout this research.

Thank you.

## ABSTRACT

This research objective is to determine and identify the product attributes that influence the mobile phone preference among millennial in Melaka. This research also has shown the relationship between the products attributes with the mobile preference and their purchase intention. The research framework is based on the dependent variable which is the mobile phone preference and independent variables which include design, colour, brand and price of a mobile phone. This study was conducted to test the hypotheses. A total of 250 respondents in Melaka participated by providing their valuable responses by answering the questionnaire provided through Google Form. Data analysis was carried out using Statistical Package for Social Science (SPSS) with descriptive analysis, Pearson correlation analysis and multiple regression analysis. The result of the analysis showed that the design of the mobile phone has the most influential and has a significant relationship with the mobile phone preference among millennial.

Keyword: mobile phone preference, millennial, design, colour, brand, price

## **ABSTRAK**

*Kajian ini bertujuan untuk mengkaji hubungan dan mengenal pasti atribut produk yang mempengaruhi pilihan telefon bimbit milenium di Melaka. Kajian ini juga menunjukkan hubungan antara atribut produk dengan pengaruh pilihan telefon bimbit milenium. Rangka tugas projek sarjana muda ini adalah berdasarkan pembolehubah bersandar iaitu pilihan kegemaran telefon bimbit milenium di Melaka dan pembolehubah bebas iaitu reka bentuk, warna, jenama dan harga telefon bimbit. Kajian ini dilakukan untuk menguji hipotesis. Sebanyak 250 orang responden di Melaka yang mengambil bahagian dalam kajian ini dengan menjawab soal selidik yang diedarkan melalui Google Form. Data dan respon kajian ini dianalisa menggunakan Statistal Package for Social Sciences (SPSS) melalui deskriptif analisis, Pearson korelasi analisis dan analisi regresi berganda. Keputusan analisa menunjukkan bahawa reka bentuk telefon bimbit merupakan atribut yang paling berpengaruh dalam pilihan telefon bimbit milenium.*

*Kata kunci: Pengaruh pilihan telefon bimbit, milenium , reka bentuk, warna, jenama, harga*

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**LIST OF SYMBOL**

$\mu$	=	Mean
R / r	=	Pearson Correlation Coefficient
$\beta$	=	Beta Coefficient Value
$\rho$	=	Level of Significance
%	=	Per cent
H <sub>0</sub>	=	Null Hypothesis
H <sub>1</sub>	=	Alternative Hypothesis

**LIST OF ABBREVIATION**

IT	=	Information Technology
RCC	=	Radio Common Carrier
GPS	=	Global Positioning System
MCMC	=	Malaysian Communications and Multimedia Commission
HPUS	=	Hand Phone Users Survey
LCD	=	Liquid-Crystal Display
2G	=	Second Generation
4G	=	Fourth Generation
LTE	=	Long-Term Evolution
iOS	=	iPhone Operating System
UTAR	=	Universiti Tunku Abdul Rahman
ANOVA	=	Analysis of Variance
UTeM	=	Universiti Teknikal Malaysia Melaka
SPSS	=	Statistical Package for Social Science

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## **CHAPTER 1: INTRODUCTION**

### **OVERVIEW**

Chapter 1 comprises the background of research, problem statement, the research questions, the research objectives, the scope and limitations of research, significance of the research and contribution of the research. In this chapter, the evolution and innovation of the mobile phone was briefly described and reviewed. The product attributes of mobile phone were being outlined and determined. This chapter subsequently described the research objectives which were to study the attributes of mobile phone that influence millennial preferences, to determine factors of millennial preference and to analyse the factors that influence millennial in purchasing a mobile phone. The scope of the study was also defined in this chapter, to figure out how broad this study would explore. In this research approach, the study would focus on the relationship between product attributes with the mobile phone preference of millennial. Specifically, the millennial in Melaka is the target respondents of this study. This chapter then further identifies the limitation and propose a suggestion for future studies. Lastly, in this chapter researcher also identifies the significance and contribution of the study to the society as a whole, and also to individuals.

## 1.1 Background of Research

The telephone was first invented and introduced by Alexander Graham Bell in 1876. It's a tool that enables two or more users to communicate even though they are far apart. In the year of 1876, the telephone played a crucial role as a mass media for communication purpose. A few years later, in the mid of 1990s, studies found that telephone is no longer playing a big role as people start to innovate and adopt information technology (IT) which has possess the similar function as a telephone. For example, the teller machine or telegraph (Mohd Azam, 2012). Later on, Martin Cooper invented the first mobile phone. It was the first invention that can be carried around. However, it did not have most of the functions as the current mobile phone now.

With the advent of technology and the high rate of product development in innovation, the mobile phone has transformed dramatically and evolved rapidly. It changes the needs and wants of the users and also affects their preferences towards the mobile phone. The mobile phone has evolved from a device that was invented primarily for two-ways communication purpose through the phone call to a mobile phone which is now multi-functional (Kushchu, 2007).

In the market, there are a lot of styles and design of mobile phone that are available. Therefore, there are wide options and selection available to users. Years ago, mobile phones were an extravagant and large device that users carried on their backs. Mobile phones back then used to weigh 25 to 30 pounds and have very limited connectivity range. But now, in the year 2018 mobile phones are light and capable of multitasking at the same time with connectivity all around the world.

45 years ago in the year of 1973, Motorola invented the first functional and portable hand-held mobile phone. With the turbulent global economic conditions and advent of technology, electronic mobile phone manufacturers such as Samsung, Huawei, Oppo, Lenovo and many more mobile phone manufacturers are shifting and innovating their products from basic devices; Radio Common Carrier (RCC), Brick Phone, The Clamshell to a palm-sized mobile phone with seemingly endless specifications and features. The development of the product is important as consumer expectations are changing as technology advances (P. C. Hong et al., 2004).

Product attributes are attributes or additional characteristics that define a particular product. A product's attributes are what makes a product different or stand out from the others. Product attributes play an important role in adding value to the product and it will influence the consumer purchase decision. Attributes of product can also be defined as the product features that are able to fulfil and satisfy users' preferences through the usage of the product (Kotler & Armstrong, 2010). Product attributes are important to users because users evaluate and compare the attributes with the others before making the purchase decision. The product attributes help users to make a selection of the product when they are in a dilemma in choosing between two or more different products. Product attributes are also important to marketers and electronic mobile phone manufacturers. This is because marketers and manufacturers can make use of product attributes to distinguish their products from competitors (Karen, 2013).

Attributes of a product are also be classified into two distinct categories which are concrete and abstract attributes (Snelders & Schoormans, 2004). Concrete attributes also known as extrinsic and tangible attributes. This because tangible attributes are physical items that can be seen and felt. Whereas, abstract attributes are known as intrinsic and intangible attributes. Intangible attributes are non-physical items that cannot be seen and felt but are functional and beneficial. According to the study conducted by Lay-Yee (2013), the attributes are categorized as concrete attributes are those that can be physically felt and touched.

Based on the previous study by Lay-Yee (2013), she also have carried out a research among Malaysians and the result of the study indicated that product features, both software and hardware are considered the most influential factor in smartphone purchase making-decision. Besides, supported with the study by Snelders & Schoormans, (2004), also found that the underlying elements and factors that influence the consumer preference towards mobile phone and their purchase intention is the concrete attributes and followed by the price of the mobile phone. The after sales service and brand name have a moderate impact. Another study of Uddin, Zahan Lopa, & Oheduzzaman, (2014), found out that the most influencing factors affecting the buying decision are the physical attributes and price of the mobile phone. Researcher Azira claimed that product feature and brand name are the most influential factor of attributes (Rahim et al., 2016). Researcher Md Alamgir Hossain found that mobile phone users give preference to price and visual appeal of a mobile handset (Mohammad & Jahan, 2018).

Based on previous research, mobile phone, particularly the smartphones have become one of the indispensable and inseparable gadgets in our lives, especially to the millennial, students and working adults. The mobile phone functions as their alarm, clock, camera, calculator, games console, map navigator, calendar scheduler, music player and many more. The mobile phone is now pervasive with new technology that is for different functions and utilization. All of the mobile phones now is featured with wireless connectivity, a long-lasting battery, processors, a built-in web browser, and Global Positioning System (GPS). And yet consumers in this era have a higher expectation and wants more from their mobile phone. According to research carried out by Oulasvirta (2013), he determined and identified a total of five design attributes that consumer considers before buying a mobile phone. The five design characteristic are the wireless connection with Internet browser, screen colour, camera resolution and voice activation function (Oulasvirta et al., 2013).