CUSTOMER SATISFACTION AND CUSTOMER LOYALTY TO MOBILE PHONE SERVICES IN THE FEDERAL TERRITORY OF LABUAN

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12 August 2013

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ABSTRACT

CUSTOMER SATISFACTION AND CUSTOMER LOYALTY TO MOBILE PHONE SERVICES IN THE FEDERAL TERRITORY OF LABUAN

This dissertation examines the perception of mobile phone users towards service providers in the Federal Territory of Labuan. It aims to determine the relationship between influencing factors, customer satisfaction as the mediator and customer loyalty with age as the moderator. The researcher seeks to contribute to the development of theoretical framework that relates to the above factors. The literatures suggest that the issue of perceptions of mobile phone services can be investigated from the perspective of the mobile phone users. Hence, convenience samplings approach has been used to measure the relationship between the variables involved. A research framework has been developed in the dissertation to illustrate the relationship involved between influencing factors (service quality, price and perceived value), customer satisfaction and customer loyalty. A questionnaire survey was conducted to 213 mobile phone users with various demographic backgrounds in the Federal Territory of Labuan. The data collected was analysed and summarized by using Statistical Package for Social Sciences (SPSS) Version 21. Three independent variables namely service quality, price and perceived value was used to measure the significant relationship with customer satisfaction (mediator), customer loyalty (dependent variables) and age (moderator). The study found that service quality is the important factor for determining customer satisfaction and customer loyalty, while price is vice versa. Likewise, perceived value is the determining factor in customer satisfaction but not towards customer loyalty. Meanwhile, age is a good moderator between customer satisfaction and customer loyalty with mature users is having high satisfaction and loyalty compared to young generation. Hence, it is important for the service providers to focus on the retaining customers and managing customers' relationship efficiently rather than seeking new customers for the future advancement and profitability growth of the companies.



ABSTRAK

Disertasi ini mengkaji persepsi pengguna telefon mudah alih terhadap penyedia perkhidmatan di Wilayah Persekutuan Labuan. Ia bertujuan untuk menentukan hubungan antara faktor-faktor yang mempengaruhi kepuasan pelanggan sebagai pengantara dan kesetiaan pelanggan dengan umur sebagai moderator. Penyelidik berharap dapat menyumbang kepada pembangunan rangka kerja teori yang berkaitan dengan faktor-faktor di atas. Ringkasan karya telah mencadangkan bahawa isu persepsi perkhidmatan telefon mudah alih boleh disiasat dari perspektif pengguna telefon mudah alih. Oleh itu, kemudahan pendekatan sampel telah digunakan untuk mengukur hubungan antara pembolehubah yang terlibat. Satu rangka kerja penyelidikan yang telah dibangunkan dalam disertasi ini untuk menggambarkan hubungan antara faktor-faktor yang terlibat perkhidmatan, harga dan persepsi nilai) mempengaruhi kepuasan pelanggan dan kesetiaan pelanggan. Satu soal selidik telah dijalankan untuk 213 pengguna telefon mudah alih dengan pelbagai latar belakang demografi di Wilayah Persekutuan Labuan. Data yang diperolehi dianalisis dan dirumuskan dengan menggunakan Pakej Statistik untuk Sains Sosial (SPSS) Versi 21. pembolehubah bebas iaitu kualiti perkhidmatan, harga dan persepsi nilai telah digunakan untuk menentukan hubungan yang signifikan dengan kepuasan pelanggan (pengantara), kesetiaan pelanggan (pembolehubah bersandar) dan umur (moderator). Kajian mendapati bahawa kualiti perkhidmatan adalah faktor penting bagi menentukan kepuasan pelanggan dan kesetiaan pelanggan, manakala harga adalah sebaliknya. Begitu juga, persepsi nilai adalah faktor penentu dalam kepuasan pelanggan tetapi tidak ke arah kesetiaan pelanggan. Sementara itu, umur adalah moderator yang baik antara kepuasan pelanggan dan kesetiaan pelanggan dengan pengguna matang mempunyai kepuasan yang tinggi dan kesetiaan berbanding dengan generasi muda. Oleh itu, adalah penting bagi pembekal perkhidmatan untuk memberi tumpuan kepada mengekalkan pelanggan dan menguruskan hubungan pelanggan dengan cekap daripada mencari pelanggan baru untuk kemajuan masa depan dan pertumbuhan keuntungan syarikat.



TABLE OF CONTENTS

		Page
TITL	E	
DEC	LARATION	i
CER	TIFICATION	ii
ACK	NOWLEDGEMENT	III
ABS	TRACT	iv
ABS	TRAK	٧
TAB	LE OF CONTENTS	vi
LIST	OF TABLES	Х
LIST	OF FIGURES	xii
СНА	PTER 1: INTRODUCTION	
1.0	Background of Study	1
	1.0.1 An Overview of Telecommunication Service Sector	2
	1.0.2 Mobile Phone Service Industry	5
1.1	Issues	6
1.2	Research Problem	9
1.3	Research Objectives	10
1.4	Research Questions	10
1.5	Significance of Research	11
1.6	Definition of Terms	11
1.7	Scope of Study	13
1.8	Organization of the Thesis	13
СНА	PTER 2: LITERATURE REVIEW	
2.0	Introduction	15
2.1	Mobile Phone Services	15
2.2	Service Quality	18
2.3	Price	21
2.4	Perceived Value	22
2.5	Customer Satisfaction	23



2.6	Custo	mer Loyalty	24
2.7	Age		25
2.8	Summ	pary	26
CHAI	PTER 3:	RESEARCH FRAMEWORK AND METHODOLOGY	
3.0		uction	27
3.1	Resea	rch Framework	27
3.2	Resea	rch Hypotheses	28
3.3		rch Design	29
3.4	Target	t Population and Sampling Frame	30
3.5	Sampl	e Size	30
3.6	Instru	ment Design	31
3.7	Measu	rement of Influencing Factors	31
	3.7.1	Service Quality	32
	3.7.2	Price	33
	3.7.3	Perceived Value	33
3.8	Measu	rement of Customer Satisfaction	34
3.9	Measu	rement of Customer Loyalty	34
3.10	Data A	Analysis Method	34
3.11	Summ	ary	36
CHAP	TER 4:	RESULTS OF THE STUDY	
	Introd		37
4.2		Collection and Response Rate	37
4.3		of Respondents	37
4.4		Analysis	39
	4.4.1	Factor Analysis of Influencing Factors	41
	4.4.2	Factor Analysis of Customer Satisfaction	44
	4.4.3	Factor Analysis of Customer Loyalty	44
4.5	Reliab	ility Analysis	45
4.6	Descri	ptive Analysis	46
4.7	Correla	ation Analysis	47
4.8	Multip	le Regressions Analysis	48
	4.8.1	The Relationship between Influencing Factors and	50



		Customer Satisfaction	
	4.8.2	The Relationship between Influencing Factors and	50
		Customer Loyalty	
	4.8.3	The Relationship between Customer Satisfaction and	51
		Customer Loyalty	
4.9	Hierar	chical Regressions Analysis	52
	4.9.1	Mediator Effect	52
	4.9.2	Moderator Effect	54
4.10	Summ	ary	57
CHAI	PTER 5:	DISCUSSION AND CONCLUSION	
5.1	Introd	luction	58
5.2	Recap	itulation of the Study Findings	58
5.3	Discus	ssion of Findings	61
	5.3.1	Discussion of the Dimension of Influencing Factors	61
	5.3.2	The Effect of Influencing Factors on Customer Satisfaction	62
		and Customer Loyalty	
	5.3.3	The Effect of Customer Satisfaction on Customer Loyalty	65
	5.3.4	The Mediating Effect of Age on the Relationship	65
		between Customer Satisfaction and Customer Loyalty	
	5.3.5	The Moderating Effect of Age on the Relationship	65
		between Customer Satisfaction and Customer Loyalty	
5.4	Contri	butions of Research	66
	5.4.1	Influencing Factors	66
	5.4.2	Customer Satisfaction and Customer Loyalty	68
5.5	Limita	tions of the Study	68
5.6	Recon	nmendations for Future Research	69
5.7	Conclu	usion	70
REFE	RENCE	s	7:
APPE	NDIX A	A – QUESTIONNAIRES	78
APPE	NDIX	B - FREQUENCIES ANALYSIS	84
APPE	NDIX (C - FACTOR ANALYSIS	86
APPE	NDIX	O - RELIABILITY ANALYSIS	99



APPENDIX E – DESCRIPTIVES ANALYSIS	104
APPENDIX F – PEARSON CORRELATION ANALYSIS	105
APPENDIX G – MULTIPLE REGRESSIONS ANALYSIS	106
APPENDIX H – HIERARCHICAL REGRESSIONS ANALYSIS	112



LIST OF TABLES

		Page
Table 1.1:	Mobile Phone Subscriber	3
Table 1.2:	Population and Mobile Phone Penetration Rate	4
Table 1.3:	Mobile Phone per 100 Inhabitants	4
Table 1.4:	Number of Mobile Phone Subscriptions and Penetration Rate	5
Table 1.5:	Mobile Phone Penetration Rate per 100 Inhabitants by State	5
Table 1.6:	Consumer Complaints Received by MCMC	7
Table 1.7:	Total Number of Transfer	8
Table 3.1:	Summary of Hypothesis	29
Table 3.2:	Measurement Items for Service Quality	32
Table 3.3:	Measurement Items for Price	33
Table 3.4:	Measurement Items for Perceived Value	33
Table 3.5:	Measurement Items for Customer Satisfaction	34
Table 3.6:	Measurement Items for Customer Loyalty	34
Table 4.1:	Response Rate	37
Table 4.2:	Profile of Respondents	39
Table 4.3:	Factor Analysis on Influencing Factors	43
Table 4.4:	Factor Analysis on Customer Satisfaction	44
Table 4.5:	Factor Analysis on Customer Loyalty	45
Table 4.6:	Reliability Analysis on Variables of the Study	46
Table 4.7:	Mean and Standard Deviation for the Variables of the Study	47
Table 4.8:	Interpretation of Pearson Correlation Coefficient	47
Table 4.9:	Pearson Correlations Matrix for Variables of the Study ($N = 213$)	48
Table 4.10:	Regression Analysis of the Influencing Factors and Customer Satisfaction	50
Table 4.11:	Regression Analysis of the Influencing Factors and Customer Loyalty	51
Table 4.12:	Regression Analysis of Customer Satisfaction and Customer Loyalty	52



Table 4.13:	Hierarchical Regression Analysis of the Mediating Effect of Customer Satisfaction on the Relationship between Influencing Factors and Customer Loyalty	54
Table 4.14:	Hierarchical Regression Analysis of the Moderating Effect of Age on the Relationship between Customer Satisfaction and Customer Loyalty	55
Table 4.15:	Results of the Hypothesis Testing	57
Table 5.1:	The Effects of Influencing Factors on Customer Satisfaction and Customer Loyalty: Comparison of Hypotheses with Actual Results	64



LIST OF FIGURES

		Page
Figure 3.1:	The Proposed Research Framework of Customer Satisfaction in Mobile Phone Services in the Federal Territory of Labuan	28
Figure 4.1:	Moderating effect of Age on the Relationship between Customer Satisfaction and Customer loyalty	56
Figure 5.1:	The Proposed Research Framework for Future Research	70



CHAPTER 1

INTRODUCTION

1.0 Background of Study

In Malaysia, the swift growth of mobile phone users has inaugurated intensified competition among telecommunication companies or service provider to ensure the users' satisfaction and thus being loyal throughout the usage for companies' profitability and future advancement.

Due to competitive development of mobile phone industry, Malaysia is having more mobile phone users than its total population. In 2012, with the population of 29.0 million in 2012, the mobile phone subscribers is around 41.325 million and where as in 2013, it has increased tremendously to 42.445 million (as of first quarter 2013) mobile subscribers (MCMC Pocket Book on Statistics Q1, 2013). All this owe to the rapid technological advancement and innovations in the mobile phone system and service which took place every second. In addition, the 3Gmarket started to reach its maturity when the era of 4G has entered market since 2010. This is considerable to note thoroughly as other generation of service such as 1G and 2G will become less desirable (International Telecommunications Unions, 2013).

Historically, the mobile phone service started when the first 1G network launched in 1983 before moving to 2G in 1990 using global system for mobile communications (GSM). In 2001, 3G network was launched on Wideband Code Division Multiple Access (WCDMA) standard then followed by 3.5G or 3+ were based on high-speed packet access (HSPA) for data transfer. After that, 4G network was launched in 2009 using Worldwide Interoperability for Microwave Access (WiMAX) and coming soon 5G, major phase of standards beyond 4G standard (International Telecommunications Unions, 2013).

As to ensure the industry's development, Malaysia Communications and Multimedia Commission (MCMC) has been set up by the Government in 1998 to regulate rules and regulations pertaining to the telecommunications industry. This



came into being when this industry started to spread out beginning 1995 with the commercialization of mobile phones and the service providers started to mushrooming such as Celcom, TM Touch, TimeCell, Mobikom, Maxis and DiGi which offering variety of services and products to choose from. However, due to the economic crisis in 1997, some of the companies merged and created major multinational companies such as Celcom with TM Touch (Celcom), Maxis with TimeCell (Maxis) and DiGi with Mobikom (DiGi) in order to sustain and to expand its business globally.

Most telecommunications companies offer two types of subscriptions i.e. prepaid and post-paid category. Prepaid service means that consumers have to top up on phone credit for their number (as low as RM1.00 for reloading credit) before using it. The reloads process can be done through prepaid cards, internet and ATM reloads. Post-paid is the easy one where consumers can make as much as phone call and at the end of the month, they will be billed for the usage for the said month (as low as RM20.00 per month and increase based on customers' choice of services and usage).

1.0.1 An Overview of Telecommunication Service Sector

The Services Sector starts to have an essential role in stimulating the country's development and economy. The services sector only becomes the primary engine of growth during the implementation of Third Industrial Master Plan (IMP3) when it is expected to achieve 7.5% growth yearly from 2006 until 2020. Since then, service sector's contribution to the country's Gross Domestic Products (GDP) starting from 55% in 2008, 60% in 2009, 59.1% in 2010 to 60.6% for 2011 and surge to 67.5% in 2012 (MITI Annual Report, 2012). However, based on the latest performance in 2012, it is believed that the service sector would contribute 70% of the country's GDP by 2015 (The Star Online, 2013).

The telecommunications industry started to emerge as one of the important sub-sector service industry when MCMC was set up in 1998 from the passing of the Malaysian Communications and Multimedia Commission Act (1998) to regulate the licensing framework for the industry. Thus, the mobile phone



service industry and other pertinent matters to the industry are regulated by Malaysian Communication and Multimedia Commission.

Hence, in term of GDP, the telecommunications sub-sector contributes nearly RM4.94 billion (3.1%) to the service sector in 2008, RM3.78 billion (3.4) in 2009, RM6.37 billion in 2010 (4.9%), RM9.1 billion in 2011 (3.7%) and RM6.63 billion (3.8%) in 2012 (MITI Annual Report, 2010 &2012). Nasser, Salleh & Gelaidan (2012) stated that due to the emergence of many network operators and tremendous technical progress since 1990, the telecommunications industry has been dynamic and important to the economic growth of developed nation and thus, leading to stiff competition.

Due to that, several telecommunications companies start to play its role by providing mobile phone services in Malaysia for instance Maxis, Celcom, DiGi, U-Mobile, Tune Talk and REDtone. Prior to that, since 1995, there are a number of service providers such as Celcom, Maxis, DiGi, Mobikom, TM Touch, TimeCell and Atur with prefix numbers starting from 010, 011, 012, 013, 014, 016, 017, 018, 019 and 0111. However, since 1997 after a major economic crisis, most of these companies had merged and created several major multinational telecommunications companies such as Celcom with TM Touch (Celcom), Maxis with TimeCell (Maxis) and DiGi with Mobikom (DiGi) in order to sustain and to expand its business globally.

Below are the mobile phone service providers in Malaysia where there are several major telecommunications companies and several others new companies as in Table 1.1 below.

Table 1.1: Mobile Phone Subscriber

Service Providers	Mobile Subscribers	Service Providers	Mobile Subscribers
Maxis	14,114,000	XOXCOM	391,000
Celcom	11,330,000	P1	305,000
DiGi	9,300,000	REDtone Mobile	150,000
Tune Talk	2,000,000	Merchantrade	100,000
U-Mobile	500,000		4

Source: Forest Interactive, 2012



As compared to Malaysia's telecommunications sector to other ASEAN countries, Malaysia has 141.6% penetration rate in 2012 as compared to Singapore with 150.61% and Vietnam with 166.76%. Table 1.2 below shows the total population of each ASEAN countries and percentage of penetration of each country for the year 2012. This figures increased gradually on yearly basis as ASEAN region is regarded as the new economy power beside China and India with more than 500 million populations. Meanwhile, Table 1.3 below shows comparison between ASEAN countries for mobile phone users per 100 inhabitants. From the table, it shows that Malaysia is among the highest after Singapore and Vietnam with 127.7 per 100 people in 2011.

Table 1.2: Population and Mobile Phone Penetration Rate

Country	Total Population	Penetration Rate (%)
Vietnam	90,664,389	166.76
Singapore	4,745,929	150.61
Malaysia	28,728,607	141.60
Brunei	402,610	111.17
Thailand	66,846,779	105.05
Indonesia	245,933,887	104.25
Philippines	102,039,546	85.41
Laos	7,171,915	61.35
Cambodia	15,044,708	27.49
Myanmar	54,066,322	0.92

Source: Forest Interactive

Table 1.3: Mobile Phone per 100 Inhabitants

Country	2009	2010	2011
Singapore	139.1	143.7	149.5
Vietnam	113.0	175.3	143.4
Malaysia	105.4	119.2	127.7
Thailand	96.0	100.8	113.2
Brunei	105.4	109.1	109.2
Indonesia	67.1	91.7	85.7
Phillippines	82.4	85.7	92.0
Laos	52.9	64.6	87.2
Cambodia	44.8	57.7	69.9
Myanmar	1.1	1.2	2.6

Source: MCMC Pocket Book of Statistics Q4, 2011



1.0.2 Mobile Phone Service Industry

There are about 6.8 billion mobile phone subscriptions around the world in 2013 where almost half in the Asia-Pacific region i.e. 3.5 billion users (International Telecommunications Unions, 2013). As in Malaysia, mobile phone service users have increased significantly from 41.07 million in 2012 to 42.44 million in the first quarter of 2013 with 143.4 penetration rate per 100 inhabitants as shown in Table 1.4.

Table 1.4: Number of Mobile Phone Subscriptions and Penetration Rate

Year	Postpaid	Prepaid	Total	Penetration rate per 100 inhabitants
2011	7,067,000	29,595,000	36,661,000	127.7
2012	7,401,000	33,673,000	41,074,000	141.6
2013 (Q1)	7,471,000	34,974,000	42,445,000	143.4

Source: MCMC Pocket Book of Statistics Q4, 2012 & Q1 2013)

In addition to, Table 1.5 below shows penetration rate according to the states in Malaysia where the Federal Territory of Kuala Lumpur has the highest penetration rate as it is the most urban city in Malaysia and also as the centre of Malaysia' business and trade industry. The Federal Territory of Labuan figure is the lowest i.e. 87.0% as compared to Sabah where it has 88.8% penetration rate.

Table 1.5: Mobile Phone Penetration Rate per 100 Inhabitants by State

State	2009	2010	2011	State	2009	2010	2011
Johor	105.9	112.8	126.5	Pulau Pinang	110.5	125.5	123.9
Kedah	92.1	117.2	116.4	Selangor*	104.3	138.5	145.4
Kelantan	88.1	83.3	103.3	Terengganu	84.2	107.8	125.3
Melaka	120.4	128.9	182.3	Sabah**	77.8	92.6	88.8
Negeri Sembilan	115.7	148.8	158.4	Sarawak	73.3	74.3	94.8
Pahang	90.2	101.7	91.7	W.P. Kuala Lumpur	163.8	208.6	229.0
Perak	105.5	107.7	119.7	W.P. Putrajaya	-		120.6
Perlis	112.3	92.0	124.5	W.P. Labuan	-	-	87.0

Source: MCMC Pocket Book of Statistics Q4, 2012

In the context of Federal Territory of Labuan, the population is around 91,400 (0.3% of Malaysian population i.e. 29.00 million in 2012) (Department of



Statistics Malaysia, 2012) with hand phone users accounted for 0.2% in 2012, thus being the smallest percentages of hand phone users in Malaysia (MCMC Hand Phone Users Survey, 2012). It also has the lowest penetration rate per inhabitants i.e. 87.0%. However, Labuan is the only Offshore Business and Financial Services Centre which offering International Offshore Financial Services in Malaysia and also acts as the offshore support hub for deepwater oil and gas industries for East Malaysia.

Hence, as the melting pot of the variety of nationalities, there is a need for technological advancement in Federal Territory of Labuan to expediting process of services and communications between Federal Territory of Labuan and abroad. This is where telecommunications companies have to plays an important role in meeting this requirement as to ensure the development of Federal Territory progressively and the international investments will pour in to contribute to the nation's economic growth.

1.1 Issues

Based on the background of the study, there are several challenges facing the service providers nowadays as the telecommunications companies have created more advanced and innovative mobile phone for the sake of customer's needs and wants. Hence, the growth and the increment of the mobile phone services providers in the market shows that telecommunications industry is rapidly expanding and at the same time mobile phone services and packages need to suit current situation and advancement.

The services offered by telecommunications companies have begun to raise complaints and grouses from the customers. Due to stiff competition among telecommunications companies, they start to attract their customers with variety of offers and services. All these promotion sometimes fail to meet with the customers' anticipation and expectation. Due to that, customers start to file official complaints against their service providers to ensure that their expectation is fulfilled.



The consumer complaints received by MCMC towards telecommunications companies or operators have increased yearly. Among the major reasons of the complaints are poor service received, poor/no services coverage area, content issues - SMS, email, billing and charges and SMS services - spam, promotions, did not subscribe (MCMC Annual Report, 2011). According to MCMC, a total of 70%, 76% and 82% out of total complaints in 2011, 2010 and 2009 were related to the provision of the service provider and service performance (MCMC Annual Report, 2011). Table 1.6 shows total complaints received by MCMC from 2011 to 2008. The issue here is why customers made complaints every year towards their service providers if the companies provide them with good service, reasonable price and give value to the customer. Are they not satisfied with their current service providers? If not satisfied, whether service quality, price and perceived value have any significant relationship to determine customer satisfaction.

Table 1.6: Consumer Complaints Received by MCMC

No	Year	Total Complaints
1	2008	4289
2	2009	6178
3	2010	8013
4	2011	9222

Source: MCMC Annual Report, 2011

After all, starting from 2008, MCMC has allowed mobile users to transfer their service provider without changing the number. Prior to this, customers have to terminate their mobile phone service number before transfer to other service provider with a new mobile phone number. Hence, Table 1.7 below shows the total of cellular number transfer per year starting from 2008 to 2011. So, another issue here is why customers change their service provider if they are satisfied with their current service providers which provide them with quality service, reasonable price and give value to them. Is this the proof of customers of not being loyal towards their current service providers by changing to other service providers?



Table 1.7: Total Number of Transfer

Year	Total Cellular Customer	Total of Cellular Number Transfer Per Year	Percentage of Cellular Number Transfer Per Year
2008	27,700,000	211,692	0.8
2009	30,400,000	1,074,990	3.5
2010	33,800,000	696,807	2.1
2011	35,700,000	704,938	2.0

Source: MCMC Annual Report 2011

At the same time, there is need for the telecommunications companies to recognize these influencing factors and customer's satisfaction need to be reckoned with customer loyalty as these two factors guarantee the flow profitability for the companies in future. Kim, Park & Jeong (2004) suggested that telecommunications companies to concentrate on the customer relationship management and offer customer service oriented to ensure the customer loyalty towards their services. Thus, customer satisfaction, loyalty and retention are significant factors to ensure the company success (Harkiranpal, 2006).

In 2011, MCMC embarked on the Consumer Satisfaction Survey and Hand Phone Users Survey. The survey concluded that telecommunications service providers able to maintain customer satisfaction at par but also mentioned that the usage behavior is a saturated but maturing base. Both surveys did mention categories of age but no mention as to which category is more satisfied and loyal. Generally, these surveys are done to see the satisfaction index in Malaysia and to look the statistical data of users based on several categories but no mention to age category which make this as an issue to look upon in this research.

Thus, there are little evidence of age has been tested as the moderating factor between customer satisfaction and customer loyalty towards mobile phone service in the Federal Territory of Labuan. According to Dushyenthan (2012), there are researches suggested that older people are more loyal than younger people. Young people regularly dissatisfied based on their high expectation towards service providers due to technological advancement. This factor need to be tested as to determine what group of age is more satisfied and loyal with the service.



Thus, with these issues i.e. whether influencing factors determine customers' satisfaction with their service providers, whether satisfied customers will loyal to their current service providers and whether age moderates relationship between customer satisfaction and customer loyalty, this study aims to explore the influencing factors in customer satisfaction deeply; and mediating effect of customer satisfaction between influencing factors and customer loyalty; and moderating effect of age for the mobile phone users on customer satisfaction and customer loyalty. According to Gibler & Nelson (2003), such exercise is important for better understanding of consumer behavior and preferences.

1.2 Research Problem

It is no doubt that mobile phone users and services will keep expanding exponentially for the coming years and at the same time, telecommunications companies will persist in creating and innovating more advance products and services as to suit the current trend globally. Simultaneously, customer and users have to be satisfied with the services and products offering and balance it with their needs and budgets. If they are not pleased, then they will switch to another mobile phone service provider. Thus, it is pertinent for telecommunications companies to understand influencing factors in satisfaction and loyalty in mobile phone services. Kim et al. (2004) concluded that the service providers in Korea nowadays is concentrating on retaining existing customers by promoting customer loyalty program rather than seeking new customers.

Likewise, the total number of transfer of services between service providers increases from 2008 until 2011 as showed by Table 1.7 (see page 9) without stating their reason to transfer. According to MCMC, a total of 70%, 76% and 82% out of total complaints in 2011, 2010 and 2009 (see Table 1.8) were related to the provision of the service provider and service performance (poor service received; content issues - SMS, email etc.; poor/no services coverage area; billing and charges; and SMS services - spam, promotions, did not subscribe) (MCMC Annual Report, 2011).

In this study, mobile phone users' satisfaction and loyalty consists of several determinants including among others are service quality, price, perceived



value, age, interactive marketing, switching behavior, switching costs, mobile operating system, mobile phone features, marital status and personality. Hence, mobile phone users need to understand all these factors in order for them to decide which service providers is the best and service providers need to understand as to what extent the mobile phone users are satisfied and hence, being loyal to the service providers throughout their subscription of the service.

Due to that reason, the research problem for this study is to determine whether the influencing factors (service quality, price and perceived value) did play a role in mobile phone users' satisfaction and loyalty towards their current service providers in Federal Territory of Labuan. Though, there are extensive researches and studies on customer satisfaction and loyalty in developed and developing countries but there is a slight evidence of such study doing in Federal Territory of Labuan context. Hence, the study will serve to explore the customer satisfaction and loyalty and thus, the factor influences it which will benefit telecommunications companies in future.

1.3 Research Objectives

The research objectives of this study are as follows:

- (i) To examine relationship between influencing factors such as service quality, price and perceived value and customer satisfaction.
- (ii) To examine the mediating effect of customer satisfaction between service quality, price and perceived value and customer loyalty.
- (iii) To examine the moderating effect of age between customer satisfaction and customer loyalty.

1.4 Research Questions

The research questions in this study will be based on the research objectives are as follows:



- (i) Does service quality, price and perceived value have significant relationship on customer satisfaction?
- (ii) Does customer satisfaction has a mediating effect on the relationship between service quality, price and perceived value with customer loyalty?
- (iii) Does age has a moderating effect on the relationship between customer satisfaction and customer loyalty?

1.5 Significance of Research

The findings of this research should benefit both academics and practitioners to understand the influencing factors in customer satisfaction; and mediating effect of customer satisfaction between influencing factors and customer loyalty; and moderating effect of age for the mobile phone users on customer satisfaction and loyalty. It also will give clear representation for the benefit of the people in the Federal Territory of Labuan especially the customers to understand and gain knowledge from this study and to understand their view entirely.

Moreover, it will much benefit telecommunications companies for their executive implications by improving their standard of service based on the customer needs and budgets from time to time. The findings will be able to reveal the real setting of customer's attitude and view towards the telecommunications companies and their services. At time same time, it facilitates telecommunications companies in creating effective prospects for their services in future. Hence, it is a necessity for this study to be done and completed for the sake of future references and uses.

1.6 Definition of Terms

This section will explain the key terms used in this study. These terms will be used as the working definitions and to further understanding in this research process.

1.6.1 Mobile phone

According to Oxford Dictionary, mobile phone is a telephone with access to a cellular radio system so it can be used over a wide area, without a physical

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