# SUPERVISOR VERIFICATION

-Hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of the degree of Bachelor of Technology Management (Technology Innovation)"

Signature:

Name of Supervisor: Prof. Madya Dr. Md Nor Hayati Bin Tahir Date:

Signature:

Name of Panel Supervisor: Madam Nor Azan Binti Abdul Gani Date:

C Universiti Teknikal Malaysia Melaka

# EXPLORING PROTON CUSTOMERS' TECHNICAL SATISFACTION

# ULFAH LINA BINTI JASRI

Partial fulfillment of the requirements for the award of Bachelor of Technology Management and Technopreneurship with honour (Technology Innovation)

Faculty of Technology Management and Technopreneurship Universiti Teknikal Malaysia Melaka

JUNE 2014



# DECLARATION

-Hereby, I declare that this thesis entitled "*Exploring Proton Customers' Technical* Satisfaction" is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

> Signature : Name : Ulfah Lina Binti Jasri Date : 17<sup>th</sup> June 2014

C Universiti Teknikal Malaysia Melaka

# DEDICATION

Infinite thanks to

my precious Umi and Abah, without those prayers, I will never be here

PM Dr Md Nor, your patience is virtue

and my only best friend that always stay by me during my ups and downs

Huge support from all of you is priceless

# ACKNOWLEDGEMENT

I would like to thank you my supervisor Prof. Madya Dr. Md Nor Hayati Bin Tahir for giving assistant to complete this project successfully. He had given me a lot of guidance and support to make sure the project finish as planned.

I also want to say thank you to my beloved parents who constantly giving me support and motivation until the end of my project. To my siblings and cousins, never fail to bright my days, thank you.

Not to forget, million thanks to all respondents that contributed to this research, without them, this research is hardly completed.

Last but not least, I would like to express my gratitude and heartfelt to Universiti Teknikal Malaysia Melaka for the opportunity to pursue my degree here. Not to forget to say my million thank you who were involved in helping me to complete this project.

#### ABSTRACT

Malaysia is one of the developing countries in the world that have its own car brand. Proton is the first car brand ever in Malaysia and then Perodua came after. Thus, Proton is one of Malaysia's well-known brands that Malaysian can be proud of in the eye of the world in automotive industry. In the process of producing a good car, Proton went through so many phase. From not so good production quality, to a very demanding production now; which is we can see Proton becoming good in what they produce. In this research, the researcher wants to find out if the customers are actually technically satisfied with this brand. As in, after Protons' customer gets the car they bought, is the car actually fulfilled what they expect to get from Proton. Using suitable dependent and independent variables in theoretical framework, the questionnaire will be constructed. So, in order to get the result, few suitable methods have been applied. Quantitative approach has to be used in order to get the best result for this research. In this research, correlation and regression are the best way to dig out the answer of research question. To conclude, the researcher will be cleared if Proton's consumers and customers are technically satisfied with this Malaysia's heritage product.

#### ABSTRAK

Malaysia merupakan salah satu Negara mmbangun di dunia yang mempunyai jenama kereta tersendiri. Proton merupakan kereta keluaran pertama Malaysia, kemudian disusuli Perodua. Jadi, Proton merupakan salah satu jenama kereta nasional yang dibanggai rakyat Malaysia dalam bidang automotif didunia. Dalam proses melahirkan kereta yang bagus, Proton telah melalui bermacam-macam fasa. Dari kualiti rendah sehinggalah kereta Proton mendapat permintaan yang tinggi dipasaran sekarang. Dalam kajian ini, pengkaji mahu mencari tahu sekiranyanya pengguna Proton di Malaysia betul -betul berpuas hati dengan produk keluaran Malaysia ini. Dalam erti kata lain, adakah pelanggan Proton mendapat kereta yang mereka jangkakan dan akan memenuhi kepuasan mereka terhadap kereta nasional ini. Dengan menggunakan rangka teori yang sesuai, soalan kajian akan dicipta bagi mendapatkan keputusan yang lancer. Jadi, untuk mendapat keputusan itu, beberapa kaedah yang sesuai telah dijumpai. Kaedah kuantitatif merupakan kaedah yang paling bersesuaian. Untuk kajian ini, kaedah yang akan digunapakai untuk menilai keputusan adalah menggunakan korelasi dan regrasi. Akhir kata, pengkaji akan mendapat jawapan sama ada pengguna dan pelanggan Proton berpuas hati terhadap produk keluaran Malaysia ini atau tidak.

# **TABLES OF CONTENTS**

CHAPTER	CON	TENT	PAGE
	TITL	Æ	i
	DEC	LARATION	ii
	DED	ICATION	111
	ACK	OWLEDGEMENT	iv
	ABS	ГКАСТ	V
	ABS	ГКАК	vi
	TAB	LE OF CONTENTS	vii
	LIST	OF TABLES	xi
	LIST	OF FIGURES	xii
	LIST	OF APPENDIXES	xiii
CHAPTER 1	INTR	RODUCTION	1
	1.0	Introduction	1
	1.1	Background of Study	2
	1.2	Problem Statement	6
	1.3	Research Question	11
	1.4	Research Objective	12
	1.5	Scope	12
	1.6	Limitation	12
	1.7	Significance of the Project	13
	1.8	Conclusion	14

CHAPTER	CONTENT		PAGE
CHAPTER 2	LITERATURE REVIEW		
	2.0	Introduction	15
	2.1	Review of the Literature	16
		2.1.1 Customer Satisfaction	16
		2.1.2 Customer Expectation	18
		2.1.3 The Key Features (selected Proton's model	22
	2.2	Review on Relevant Theoretical Model	24
	2.3	Review of Developed Hypotheses	26
	2.4	Conclusion	26
CHAPTER 3	CHAPTER 3 RESEARCH METHODOLOGY		27
	3.0	Introduction	27
	3.1	Research Design	28
		3.1.1 Quantitative Research	28
	3.2	Data Sampling	30
		3.2.1 Primary Data	30
		3.2.1 Secondary Data	31
	3.3	Data Analysis	31
		3.3.1 Correlation Analysis	32
		3.3.2 Linear Regression Analysis	32
	3.4	Gantt Chart	33
		3.4.1 Gantt Chart PSM I	33
		3.4.2 Gantt Chart PSM II	34

CHAPTER 4	CHAPTER 4 FINDING AND DISCUSSION		
	4.0	Introduction	
	4.1	Results Dissemination Questionnaire	
	4.2	Respondent Characteristics	
		4.2.1 Gender	
		422 Ago	

CONTENT

CHAPTER

# 4.2.2 Age 4.2.3 Employment Status 4.2.4 Income Level 4.2.5 Living State 4.3 Respondents' General Technical Specification 4.3.1 Model of Proton's Car 4.3.2 Engine Capacity 4.3.3 Running Transmission 4.3.4 Duration of Use Proton's car 4.4 Reliability 4.4.1 Reliability Test

4.5	Correlation Coefficient	48
4.6	Testing Hypothesis with Simple Linear Regression	50
	4.6.1 Hypothesis 1 – There is a positive significant relationship between Proton's technical criteria towards customers' technical satisfaction	52
	4.6.2 Hypothesis 2 – There is a positive significant relationship between the customer's expectations towards	54

4.7	Summary of Findings	56
		• •

customers' technical satisfaction

# PAGE

#### CONTENT CHAPTER

5.0

5.1

**CHAPTER 5** 

	5.1.1 Research Objective 1: To investigate the relationship between consumer's technical satisfaction and Proton's technical criteria	59
	5.1.2 Research Objective 2: To explore Proton's customer technical satisfaction through their expectation	60
5.2	Recommendation	61
5.3	Conclusion	62
REF	ERENCE	63
APPENDICES		

# 5.2 5.3

**DISCUSSION AND CONCLUSION** 

Summary of the Research Findings

Introduction

C Universiti Teknikal Malaysia Melaka

PAGE

57

57

58

# LIST OF TABLES

TABLE	TITLE	PAGE
3.1	Advantages and disadvantages of the chosen modes.	29
3.2	Gantt Chart PSM I	33
3.3	Gantt Chart PSM II	34
4.1	Results Dissemination Questionnaire	36
4.2	Respondents by Gender	37
4.3	Respondents by Age	38
4.4	Respondents by Employment Status	39
4.5	Respondents by Income Level	40
4.6	Respondents by Living State	41
4.7	Model of Proton's Car used by Respondents	42
4.8	Respondents by Engine Capacity	43
4.9	Respondents by Running Transmission	44
4.10	Respondents by how long they used the Proton's car	45
4.11	Cronbach's Alpha and Internal Consistency	47
4.12	Reliability Test Result	47
4.13	Correlation Coefficient	49
4.14	Result for Correlation Coefficient of the Variables	49
4.15	Value of R	51
4.16 (a)	Model Summary	52
4.16 (b)	ANOVA <sup>a</sup>	52
4.16 (c)	Coefficients <sup>a</sup>	52
4.17 (a)	Model Summary	54
4.17 (b)	ANOVA <sup>a</sup>	54
4.17 (c)	Coefficients <sup>a</sup>	54
4.18	Summary of Findings	57

# **LIST OF FIGURES**

#### FIGURE TITLE PAGE 1.1(a)2013 Malaysia SSI Ranking (J.D Power Asia Pacific) 6 1.1(b) Factors Contributing to Overall SSI (J.D Power Asia 7 Pacific) 1.2(a)2013 Malaysia CSI Ranking (J.D Power Asia Pacific) 8 9 Factors Contributing to Overall CSI (J.D Power Asia 1.2(b) Pacific) 1.3 Drivers of Customer Satisfaction 13 2.1 Building a Customer Satisfaction Survey 24 2.2 The proposed framework for his Study 25 2.3 24 Developed Theoretical Framework for the Research 4.1 Respondents by Gender 37 4.2 38 Respondents by Age 4.3 39 **Respondents by Employment Status** 4.4 Respondents by Income Level 40 4.5 Model of Proton's Car used by Respondents 42 4.6 Respondents by Engine Capacity 43 4.7 Respondents by Running Transmission 44 4.8 Respondents by How Long They Used Proton's car 45

xii

# LIST OF APPENDICES

APPENDICES	TITLE	PAGE
А	Questionnaire Questions	65

**CHAPTER 1** 

# INTRODUCTION

# 1.0 Introduction

This final year research starts with chapter one that explains seven elements. The Background of Study is the first element that elaborates the crucial things in this research which means let the readers the other researchers know what they were reading. Second element is problem statement and research question. The problem statement will state the existing problems in the real situation meanwhile the research question is what this research report going to find out later in the conclusion part. Research Objective is the third element, introducing the objectives of this research. Next element is Scope, Limitation and Key Assumption of this research study. Of course, every research has its own limitation and key assumption and explaining the scope. Last but not least, the significant of the study, explaining why is this research important so much for future reference.

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

Starting in the late 1700's, European engineers began tinkering with motor powered vehicles. Steam, combustion, and electrical motors had all been attempted by the mid 1800's. Automotive production on a commercial scale started in France in 1890. Commercial production in the United States began at the beginning of the 1900's and was equal to that of Europe's. In those days, the European industry consisted of small independent firms that would turn out a few cars by means of precise engineering and handicraft methods.

The first automobile produced for the masses in the US was the threehorsepower, curved-dash Oldsmobile; 425 of them were sold in 1901 and 5,000 in 1904--this model is still prized by collectors. At the beginning of the century the automobile entered the transportation market as a toy for the rich.

However, it became increasingly popular among the general population because it gave travelers the freedom to travel when they wanted to and where they wanted. As a result, in North America and Europe the automobile became cheaper and more accessible to the middle class.

Popularity of the automobile has consistently moved with the state of the economy, growing during the boom period after World War I and dropping abruptly during the Great Depression, when unemployment was high. World War II saw a large increase in mass transit because employment was high and automobiles were scarce.

A historian has said that Henry Ford freed common people from the limitations of their geography. The automobile created mobility on a scale never known before, and the total effect on living habits and social customs is endless. In the other world, Malaysia which is known as *Tanah Melayu* also already involve in few machines including automotive but not largely in manufacturing.

Before the automobile, people both lived in the city and worked in the city, or lived in the country and worked on a farm. Because of the automobile, the growth of suburbs has allowed people to live on the outskirts of the city and be able to work in the city by commuting. New jobs due to the impact of the automobile such as fast food, city/highway construction, state patrol/police, convenience stores, gas stations, auto repair shops, auto shops, etc. allow more employment for the world's growing population including Malaysia. Yet, the effect on city life has been, if anything, more prominent than the effect on the farms like at Ulu Kinta for *Bijih Timah*. The automobile has radically changed city life by accelerating the outward expansion of population into the suburbs.

Meanwhile people nowadays got reasons why they want to buy cars. Survey at Wiki website said that people buy cars mainly are for transportation. Other reasons mainly are for transportation. Other reasons given by the respondents are for fun, personal impressions or even just to fit in to the crowd. In the same website, the percentage of people who buy cars about 75% of people in the USA buy and drive cars. That number do not actually apply to all countries due to the difference of gas, what cars are around and if people like them or not.

Proton Holding Berhad is Malaysia's first manufacturing automobile and this Malaysia's car brand called PROTON that stands for Malay short form of <u>Perusahaan</u> **Oto**mobil Nasional Sendirian Berhad'. Between 1985 and early 2000s Proton was a largely manufacturer of badge engineered vehicles from Mitsubishi Motors. In that time between, this company already export lot of cars to several number of country worldwide. Back then, Proton was owned by the Malaysia government's investment holding arm, Khazanah Nasional. PROTON's privatization was started at January 2012, during DRB-HICOM's taking over (Proton).

The first Proton, the Saga saloon launched in July 1985 amid positive reception, but poor sales due to Proton's inability to meet the high demand. However, Proton later captured a 47% Malaysian market share in the following year, with 24,148 cars sold. The company's market share later grew to 65% in 1987; 85% in the Under 1,600cc



segment. Proton maintained a majority market share in the following years, which peaked in 1993 at 74% with over 94,100 units sold. Automobile sales in Malaysia plunged from 404,000 units in 1997 to 163,851 in 1998 due to the 1997 Asian Financial Crisis. Proton's revenue and profits were severely affected, but a majority market share was still maintained into the early 2000s.

The mid-2000s witnessed a sharp decline in Proton's revenues and sales. In 2006, Proton's market share was 32%, down from 40% in 2005. Proton lost its majority domestic market share for the first time in 20 years to Perodua, the second Malaysian automobile manufacturer. Factors which contributed to the fall of Proton included the revision of the National Automotive Policy (NAP), Proton's newer indigenously designed models (i.e. the Proton Waja, Gen-2 and Savvy) which were poorly designed and manufactured compared to the former Mitsubishi-based Protons and stronger competitors, specifically Perodua with their best-selling Myvi which launched in 2005. Both Proton's total sales volume and market share failed to recover to its pre-2002 figures and Perodua remained the domestic market leader from 2006 onwards.

Sales of Proton cars grew at a stable rate in the latter half of the 2000s and in the early 2010s. The company briefly regained the top-spot from Perodua in June 2009, after the introduction of the Proton Exora MPV. Proton also matched Perodua's market share in the first quarter of 2011. Factors which contributed to the rise of Proton were well-designed cars which catered to the needs of the domestic market (i.e. the Proton Persona, second generation Saga and Exora) in addition to better management of the company under the then Managing Director, Syed Zainal Abidin. However, despite the improvements made between 2007 and 2012 in addition to improved overall sales, Proton's Malaysian market share continued to decrease. In 2011, the company had a 26.4% (158,657 units) share which plummeted further to 22.5% (141,121 units) in 2012. In comparison, Perodua retained a majority market share of 30.1% (189,137 units) in 2012, with Toyota maintaining its third place at a 16.8% share with 105,151 units sold.

Proton's decline in market share has stabilized as of 2013. In the first half of this year, Proton sold 64,782 cars, representing 20.7% of the market share. Perodua and Toyota sold 96,873 and 43,747 units with 30.9% and 14.0% market shares respectively. In July 2013, Proton sold around 16,600 cars, which accounted for 25% in market share during that specific month. Perodua on the other hand sold 19,200 or 2,600 more cars than Proton in July 2013. The rise in Proton's sales were attributed to the launch of the Proton Saga SV, a cheaper variant of the second best-selling car in Malaysia.

Another factor which continues to play a significant role in the sales of Proton cars is the National Automotive Policy (NAP), enforced by the Malaysian Government since March 2006 in the interests of Proton, Perodua and other vehicles produced in Malaysia. Under the NAP, imported vehicles are subjected to varying degrees of import duties depending on the vehicle's origin of manufacture and engine displacement. Vehicles imported from members of the ASEAN such as Thailand and Indonesia are subject to the least import duties, whereas those from Europe suffer the worst. However, imported hybrid vehicles and cars purchased in duty-free Langkawi are exempted from the import duties. The NAP ensures the survival of Proton and other Malaysian-made vehicles under a biased playing field in the Malaysian market. Nonetheless, the import duties of the NAP have been progressively revised and reduced in line with the eventual liberation of the market. In March 2013, the Ministry of International Trade and Industry (Malaysia) announced that vehicles manufactured in Australia and Japan will face a gradual reduction of import duties in stages to zero by 2016. Proton however responded positively to the announcement, citing their recent positive developments such as the 5star ANCAP safety recognition of the Proton Prevé as part of their commitment to progress.

# **1.2 Problem Statement**

In this section, the researcher wants to state the real problem that all cars' consumer will be faced after they get their car and pay for it. So basically, the researcher wants to find out the worthiness of the price paid by Proton's customer for their cars.

The problem statement that can lead to this research is;

Does Proton's car worth the price paid by customer? Does any of Proton's cars (in this research case using only selected model) on the road one value for money?

Hence, these problem statements are the reason why the researcher wants and needs to explore the issues on customer satisfaction.



J.D. Power Asia Pacific 2013 Malaysia Sales Satisfaction Index (SSI) Study℠

Figure 1.1(a): 2013 Malaysia SSI Ranking (J.D Power Asia Pacific)

C Universiti Teknikal Malaysia Melaka

J.D Power Asia Pacific released a statistics that shows Sales Satisfaction Index on choices of automobile available in Malaysia year 2013. The points in the graph bar based on a 1000-point scale. Automobile company that clearly wins Malaysians' heart is Toyota with highest point gain, 826 and followed by Nissan and Suzuki with point of 823 and 821 respectively. Those top three car brands are from Japan. Malaysia car brand, Perodua, Kia and Proton gain points 790, 784, and 776 respectively. Meanwhile, the industry average point is 798. This graph shows that Protons' Sales Satisfaction Index is below average and just above the last ranking in this bar graph, Mitsubishi with point of 773.





Figure 1.1(a): Factors Contributing to Overall SSI (J.D Power Asia Pacific)

C Universiti Teknikal Malaysia Melaka

J.D Asia Power Pacific released a statistics that shows Factors Contributing to Overall Satisfaction Sales Satisfaction Index on choices of automobile available in Malaysia year 2013. Every Bar Poll in Satisfaction Sales Satisfaction Index was effected by these six factors. Deal 10%, Delivery Process 20%, Sales Initiation 17%, Salesperson 15%, Paperwork 15%, Deliver Timing 13%, and Dealer Facility 11%. Protons' Satisfaction Sales Satisfaction Index was effect by all of these factors as well.



# J.D. Power Asia Pacific 2013 Malaysia Customer Service Index (CSI) Study<sup>SM</sup>

Figure 1.2 (a): 2013 Malaysia CSI Ranking (J.D Power Asia Pacific)

(C) Universiti Teknikal Malaysia Melaka

J.D Asia Power Pacific released a statistics that shows Customer Service Index on choices of automobile available in Malaysia year 2013. The points in the graph bar based on a 1000-point scale. Automobile company that clearly wins Malaysians' heart is BMW with highest point gain, 817 and followed by Volkswagen and Honda with point of 793 and 786 respectively. Those top three car brands are from Germany and Japan. Malaysia car brand, Perodua, Proton and Naza gain points 755, 743, and 741 respectively. Meanwhile, the industry average point is 758. This graph shows that Protons' Customer Service Index is below average and just above the last ranking in this bar graph, Naza with 2 points difference.



Figure 1.2 (b): Factors Contributing to Overall CSI (J.D Power Asia Pacific)

C) Universiti Teknikal Malaysia Melaka

J.D Asia Power Pacific released a statistics that shows Factors Comprising Overall Customer Service Index on choices of automobile available in Malaysia year 2013. Every Bar Poll in Customer Service Index was effect by these five factors. Vehicle Pick-Up 20%, Service Facilities 14%, Sales Initiation 14%, Service Advisor 14%, and Service Quality 38%. Protons' Customer Service Index was effect by all of these factors as well.

#### **Protons' Market Share**

Naveen Victor, editor of Malaysia's famous motors magazine, Motor Trader Malaysia, wrote an article <u>Is</u> Proton Still Relevant to Malaysians?' on August 13<sup>th</sup>, 2013.

"No matter how you look at them, the numbers make for some pretty grim reading. Despite having 28 years of history behind it Proton is still heavily reliant on the Malaysian car buyer, as export numbers remain tiny. In 2012 only about 20,000 Protons were sold outside of Malaysia in 55 countries, which makes them a tiny niche brand in most markets." He said.

This article questioning that Malaysia's national carmaker is finding increasingly difficult to attract local buyers but does it mean they're (Proton) in permanent decline? Many Malaysians have a colorful history with Proton and it has to be said not all of it's bad. When the original Proton Saga was launched on 9th July 1985 the feeling of national pride was palpable throughout the country. Malaysia had become a carproducing nation and it would be our springboard towards becoming an industrialized nation. Where are those dreams now?

In 2002, Proton sold 214,985 vehicles and accounted for 49.43 per cent of total vehicle sales in Malaysia. In 2012, despite Malaysia having a TIV (Total Industry Volume) of 627,753 units (up from 434,954 in 2002) Proton sold just 141,121 vehicles, which accounted for a market share of just 22.5 per cent. In contrast, Perodua sold 189,137 cars for over 30 per cent of the overall market while Toyota continued to grow with 105,151 sales. Incidentally, the Japanese brand managed just 27,355 sales in 2002