

**FACTORS AFFECTING CUSTOMER DECISION MAKING OF
BUYING CAR SPRAY BETWEEN TRADITIONAL BASED
PAINT AND WATER BASED PAINT IN BANGKOK
METROPOLITAN AREA**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE GRADUATE SCHOOL
STAMFORD INTERNATIONAL UNIVERSITY
MASTER OF BUSINESS ADMINISTRATION
ACADEMIC YEAR 2014**



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The Research has been approved by
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Title: The Factors Affecting Customer Decision Making of Car Spray between
Traditional Based Paint and Water Based Paint in Bangkok
Metropolitan Area

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Abstract

The objectives of this study were (1) to study the factors affecting customer decision making of car spray between traditional based paint and water based paint in Bangkok Metropolitan Area which are the independent variable factors of demographics (gender, age, education level, occupation and monthly income); (2) to study the independent variable factors of car garage services (Location, Service quality, Pricing and Customer Care); (3) to study the independent variable factors of the customer decision making factor, and the demographics and customer decision making factor affecting the car spray between Traditional based and Water based paint in Bangkok Metropolitan Area.

Research Methodology: The sample consisted of 400 selected people who has an experience with the car spray paint in the car garage, randomized sampling. The questionnaires employed the Likert non-comparative scaling technique The Data Analysis program will be used to analyze the data collected. The descriptive statistics (frequencies statistics) will be applied to assess the level of customer satisfaction while the relationship between the garage services attributes, specific demographic variables and customer satisfaction will be analyzed with the linear regression model..

Research findings were as follows: (1) Gender, income, visited frequency and car brand drove customer decision making to be customer of the garage. (2) Product, promotion and price are influence the customer as service garage factor then drove customer decision making to be customer of the garage as well. (3) “Water based” paint is also the factor which customer agreed and consider to garage as impulse them to making the decision. (4) The paint technology is may not the major factor for customer in regard their decision process but through the overall 4P; place, product, promotion and price actually.

Keywords: Customer decision making, water based paint, traditional based paint.

ACKNOWLEDGEMENT

I would like to express my deep grateful to Dr.Ake Choonhachatrachai.for his invaluable advice and his patient proofreading towards the completion of this thesis.

Besides my advisor, I would also like to thank the rest of my thesis study committees: Dr. Tanompong Panich, Dr. Puttithorn Jirayus and Assoc. Prof. Dr. Panarat Panmanee for their encouragement, insightful comments and hard questions. .

Special thanks and grateful thanks are also extended to the owners, the managers and the massage givers of Car Care and Car garage regards the consumer information in Bangkok Metropolitan Area owing to their kind and informative answers to the questionnaires.

Additionally, I would like to thank those whose names are not mentioned here but have greatly inspired and encouraged us until this independent study comes to a perfect end.

Monlapat Rungwarakul

CONTENTS

	Page
ABSTRACT	i
ACKNOWLEDGEMENT	ii
CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vii
CHAPTER 1 INTRODUCTION	
1.1 Introduction.....	1
1.2 Statements of the Problem.....	11
1.3 Research Objectives.....	12
1.4 Scopes of Research.....	12
1.5 Limitations of Research.....	12
1.6 Significant of the Research.....	13
1.7 Definition and Terms.....	13
1.8 Conceptual Framework.....	16
1.9 Research Hypothesis.....	16
CHAPTER 2 LITERATURE REVIEWS	
2.1 Introduction.....	18
2.1.1 History of Automobile Industry.....	19
2.1.2 Marketing of Automobile Industry.....	21
2.1.3 Customer Satisfaction changes Automobile Industry.....	24
2.1.4 Products design impact the Automobile Industry.....	25
2.1.5 Automobile Industry in Thailand.....	25
2.2 Paint Technology in Automobile Industry.....	26
2.2.1 Solvent Based Car Paint.....	28
2.2.2 Water Based Car Paint.....	29
2.3 Customer Satisfaction.....	31
2.4 Customer Decision Making.....	32
2.5 Related Researches.....	33

CONTENTS (Cont.)

	Page
CHAPTER 3 RESEARCH METHODOLOGY	
3.1 Scope of the Research.....	36
3.2 Population.....	36
3.3 Sample Selection.....	37
3.4 Research Method.....	37
3.5 Research Instrument.....	40
CHAPTER 4 RESEARCH FINDINGS	
4.1 Part 1 Analysis of demographic data.....	42
4.2 Part 2 Analysis of the satisfaction level of respondent toward the independent factor of 4P.....	44
4.3 Part 3 Analysis of The respondent's attitude Customer decision making at garage service.....	45
4.4 Part 4 Analysis of The respondent's attitude of paint based on technology of "solvent versus water based" at garage service.....	46
4.5 Part 5 Analysis testing of the independent factors that related to Customer decision making at garage service.....	46
4.6 Part 6 Analysis testing of the independent factors that related to Customer decision making toward of the paint based technology of "solvent versus water based" at garage service.....	63
4.7 Part 7 Data confirmation for hypothesis testing.....	65
CHAPTER 5 CONCLUSIONS, RECOMMENDATIONS AND FUTURE RESEARCH	
5.1 Conclusions.....	68
5.2 Discussions.....	70
5.3 Limitations.....	71

CONTENTS (Cont.)

	Page
5.4 Recommendations.....	71
5.5 Future Research.....	72
REFERENCES	78
APPENDICES	73
Appendix A Survey Questionnaires.....	74
BIOGRAPHY	81

LIST OF TABLES

	Page
Table 1.1 Thailand Sales growth YTD 2013.....	6
Table 1.2 Pros and Cons of Water Based Paint.....	9
Table 3.1 Operational definitions of the content of the questionnaire.....	40
Table 3.2 Selected Category Scale 5 level.....	40
Table 4.1 Represent frequency and percentage of respondents classified by gender.....	43
Table 4.2 Represent frequency and percentage of respondents classified by age.....	43
Table 4.3 Represent frequency and percentage of respondents classified by education.....	44
Table 4.4 Represent frequency and percentage of respondents classified by rate of occupation.....	44
Table 4.5 Represent frequency and percentage of respondents classified by rate of Salary.....	44
Table 4.6 Represent frequency of garage visit of respondent.....	45
Table 4.7 Represent frequency and percentage of respondent's car brand.....	45
Table 4.8 Analysis of the satisfaction level of respondent toward the independent factor.....	46
Table 4.9 The respondent's attitude Customer decision making of garage service.....	46
Table 4.10 The respondent's attitude of paint based technology of "solvent versus water based" at garage service.....	47
Table 4.11 T-test for Gender.....	47
Table 4.12 A analysis of Customer decision making at garage service by age.....	49
Table 4.13 A analysis of Customer decision making at garage service by education.....	50
Table 4.14 A analysis of Customer decision making at garage service by occupation.....	52
Table 4.15 A analysis of Customer decision making at garage service by income.....	53

LIST OF TABLES (Cont.)

	Page
Table 4.16 A analysis of Customer decision making at garage service by car brand.....	55
Table 4.17 A analysis of Customer decision making at garage service by garage visited frequency.....	56
Table 4.18 A analysis of Customer decision making at garage service by place factor.....	58
Table 4.19 A analysis of Customer decision making at garage service by product factor.....	59
Table 4.20 A analysis of Customer decision making at garage service by promotion factor.....	61
Table 4.21 A analysis of Customer decision making at garage service by price factor.....	62
Table 4.22 Analysis testing of the independent factors that related to attitude of paint based technology of “solvent based” at garage service.....	64
Table 4.23 Analysis testing of the independent factors that related to attitude of paint based technology of “water based” at garage service.....	65
Table 4.24 Hypothesis testing.....	66

LIST OF FIGURES

	Page
Figure 1.1 Thailand Automotive Statistic April 2013.....	3
Figure 1.2 World Automobile Product.....	4
Figure 1.3 Global Automobile Production Ranking 2012.....	4
Figure 1.4 Global Automobile Sale Ranking 2012.....	5
Figure 1.5 Thailand Vehicle Export to the World 2011-2012.....	5
Figure 1.6 Waterborne paint is commonplace.....	10
Figure 1.7 SEMA paint booth for waterborne paint transition.....	11
Figure 1.8 Conceptual Framework.....	16
Figure 2.1 Global Automobile Sale Ranking 2012.....	27

CHAPTER 1

INTRODUCTION

1.1 Introduction

Currently Thailand car amount has been raised. The present statistic there have been the car license 35,238,776 units which they involved to use the car garage service 6,861,739 units which separate by the private car, less than 7 seats 7,011,055 units. The private car, more than 7 seats 432,890 seats. (Ministry of Transport, 2013) Obviously the vehicle has been raised higher which became the normal part of the people life. This would be the necessary thing and we can claim it is the 5th factor because of the change of environment of the social life. Not only the studying, working time, different occupation, working place, study place, travel time and distance.

The expansion of the city life from the center of Bangkok to the outbound and vicinity and to the close province such as Nontaburi, Pathumthani, Samutprakarn which currently there are many new communities and villages. The population has been growth in each area which made the city people moved to live out of the city. So the transportation to work and study has been not convenient anymore. And because of the public transportation facility is not enough to serve and cover the people need. Therefore the transportation service and travel time is the important reason made the people consider to have their own vehicle to use in the rushing hour.

Moreover Thailand has the high expansion of the economy. And there are many potentials such as man power, resource, factory area or the business law including the country public order which encouraged the local and aboard entrepreneur or foreign direct investors to be interested in investing in our country. This will make many new businesses in our country. When the manufacturing and the service business will be more, the work support which is the public facility especially the good delivery, transportation, the raw material delivery to produce the good, etc...

The mentioned above factor is just one of the important factors which made the car garage business played the major role and did the marketing for the car service business because of the car amount. The car garage service will gain the market share of the car care center of each brand which used to be the market leader. Moreover the car garage

provide the faster service than the general car care center, more cost and time effective and comfortable to have the closely service care. The car garage also uses the standard tools and monthly promotion with some manufacturing selling the cheap product and valuable. They are also provide the good service guarantee from the owner, the service recommendation, the good after sales service and the importantly different service

It has been found that the customer worst service at the car center service in Bangkok, Thailand are taking very long days waiting to get their car into the dealer service center for body repair, Poor scheduling and repair planning, Irresponsibility of the dealer, Poor after-sale service system and Sale staff information. Some car center in Thailand staff came often at dealer but lack interest of any incidents for such. Furthermore the service did not meet the commitment without any notification from its staff that their car still park at the dealer car park and waiting in a queue (while there are more than 10cars ahead of us waiting), Failure to comply with commitment or any ISO management system and no proper communication to let the customer know/tracking the progress though Thailand has efficient communication network i.e. m-phone, Line, SMS etc.). It waste resources to keep cars at dealer car park i.e. security staff to watch the cars, waste car parking space. A lot of money compensate customers for cars damages. Failures will further exacerbate to customers as there is no well management looking after the issues.

Economic impact of Automobile Industry in Thailand

The automotive industry is a vital sector for the country's economy as it contributes greatly to exports and trade inflows. It is Thailand's second-largest export industry, after computer parts and components. Thanks to continuous government-led support, automotive has evolved into an industry with vibrant foreign original equipment manufacturer (OEM) competition and an extensive network of supporting industries. Thailand's long experience with automotive manufacturing has equipped the country with a comparatively low-cost yet experienced labor force for the sector. (Thailand Board of Investment, 2012)

Demand for Thailand-made automotive parts is growing. There are approximately 1,800 automotive suppliers already in the country, of which 709 are OEMs. All of the major Japanese automakers have opened manufacturing sites in Thailand. Many of their parts manufacturers, such as France's Valeo, Germany's

Bosch, US-based TRW, Britain's GKN and Japan's Denso, Mitsuba and Mitsubishi, have followed suit to serve their customers. According to the Japan Automobile Manufacturers Association, the quality of automotive parts in Thailand is the highest among ASEAN countries. Local manufacturers supply 80-90% of the parts used in pickup truck assembly, and as much as 70% of those for passenger cars. Moreover, the country produces nearly 100% of the parts used in the assembly of motorcycles. (Thailand Board of Investment, 2012) Thai Automotive Sales Statistics April 2013 FT April Numbers are here: A total of 67,641 vehicles were exported in April, up 22.02% on April 2012, but down 34.16% on March. Vehicle output in April stood at 170,438 units, up 17.40% on April 2012, but down 33.49% on March, due to fewer working days in the month. Domestic car sales over the month totaled 109,658 units, an increase of 24.91% on April 2012, but a decline of 30.39% on March. Car sales over the first four months of the year stood at 522,914 units, up 42.44% on the same period last year. (Federation of Thai Industry, 2014)

Thailand Automotive Statistics April 2013

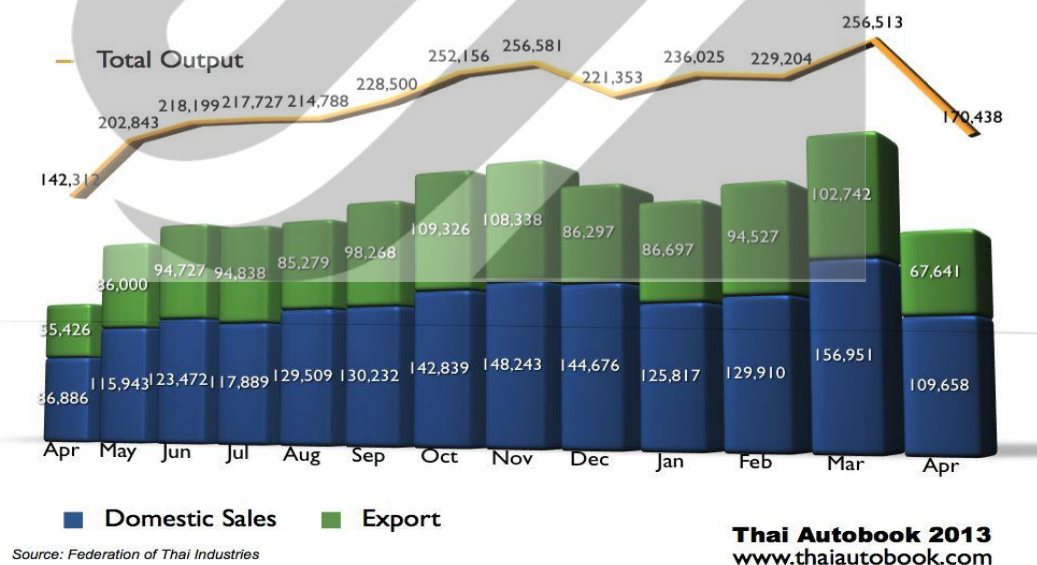


Figure 1.1 Thailand Automotive Statistic April 2013

Source: Federation of Thai Industries, 2013: Online

World Automobile Production

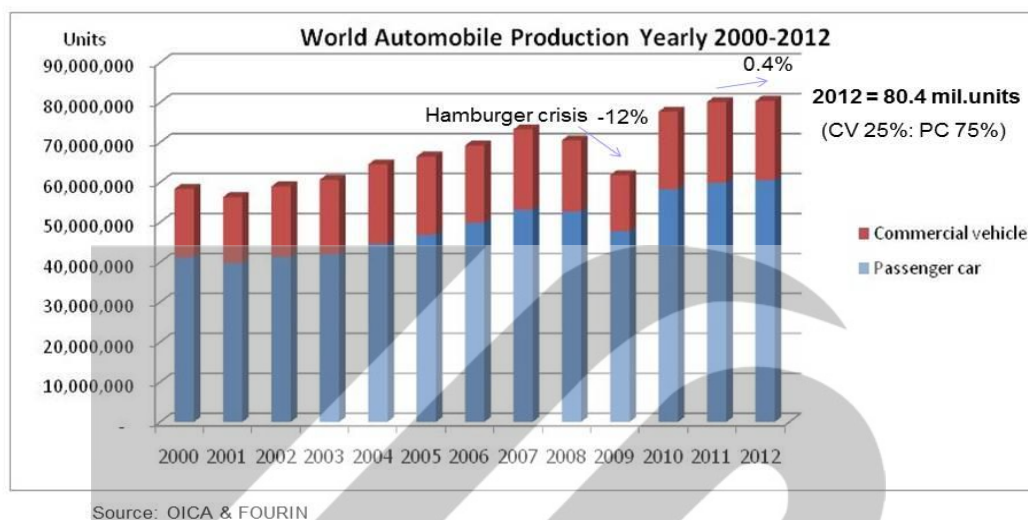


Figure 1.2 World Automobile Product

Source: OICA & FOURIN, 2012: Online

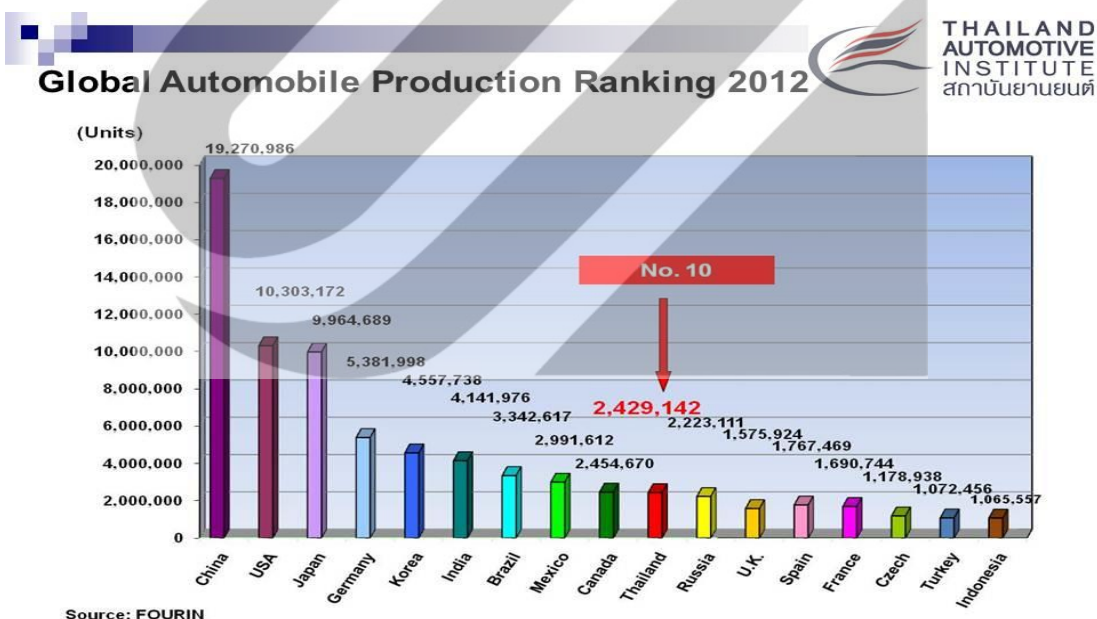


Figure 1.3 Global Automobile Production Ranking 2012

Source: FOURIN, 2012: Online

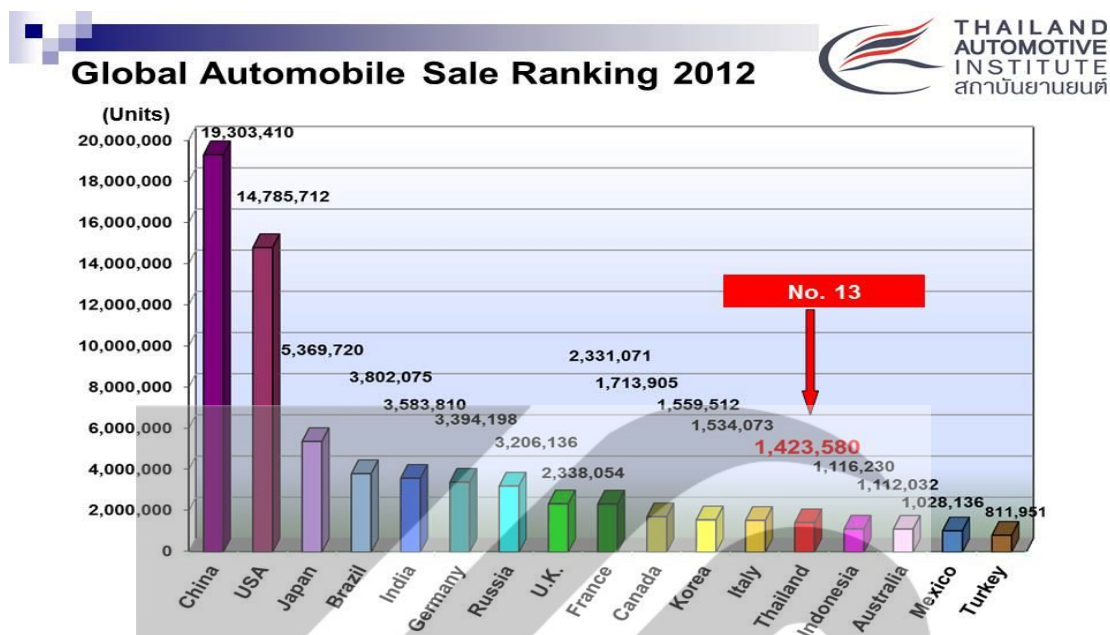


Figure 1.4 Global Automobile Sale Ranking 2012

Source: FOURIN, 2012: Online

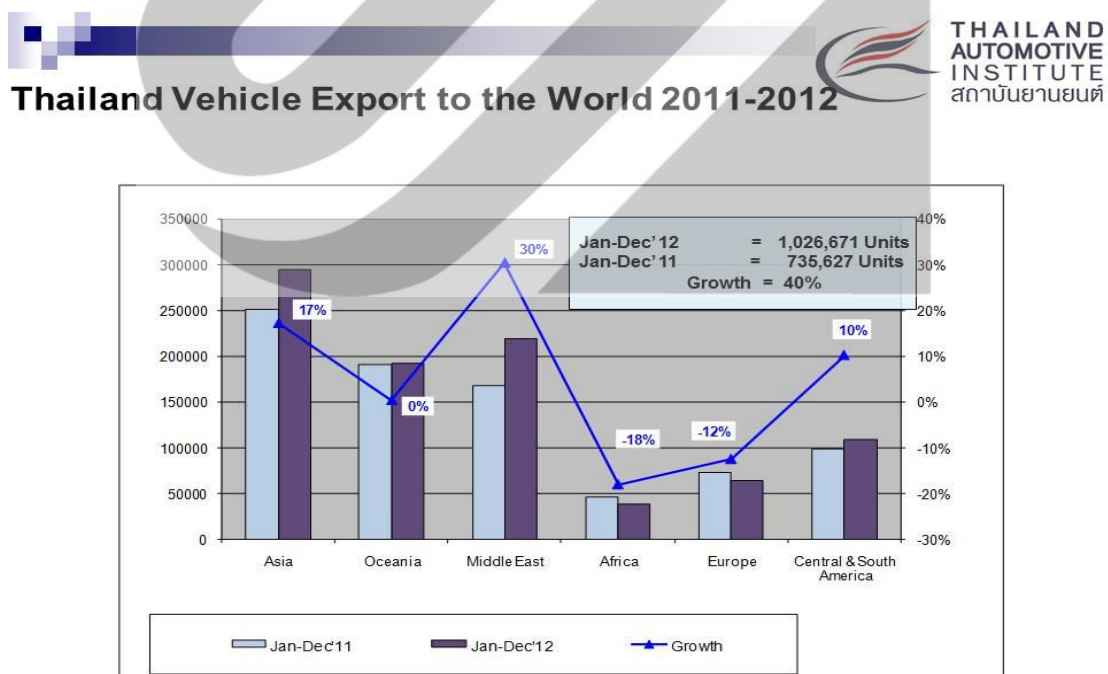


Figure 1.5 Thailand Vehicle Export to the World 2011-2012

Source: Thailand Automotive Institute (TAI), 2012: Online

Table 1.1 Thailand Sales growth YTD 2013

Motor record	Vehicle				Moto			
	March	Jan.- Mar.	Growth YOY %	Growth YTD %	March	Jan.- Mar.	Growth YOY %	Growth YTD %
March 2014								
Production (Units)	181,334	517,492	-29.24	-28.28	174,580	462,218	-16.02	-21.36
Domestic Sales (Units)	83,983	224,171	-46.69	-45.75	156,029	431,795	-18.34	-21.36
Export (CBU) (Units)	113,313	291,509	8.77	1.25	74,857	220,598	-6.14	-0.69

Source: Thailand Automotive Institute (TAI), 2013

Remark: YOY (Year on Year: compare to the same month of this year to the last year)
YTD (Year to date: the accumulate export from January to the latest month)

Export of Motorcycle is included CBU & CKD the rise of Thailand's car industry is no accident. After Asia's financial crisis in 1997 the country did away with much regulation in the sector; unlike in India or Malaysia, foreign firms do not need to enter joint ventures with local partners. Thailand's Board of Investment offered generous incentives to produce eco-friendly cars. The government cut the corporate tax rate from 30% to 20%, below that of Indonesia, Malaysia and even Vietnam.

1.2.1 Service Business in Automobile Industry

Service Business is one of the main sectors to support the economic development at social, national and global levels as seen in the last 20 years. International trade in services has been growing more and more. The value of world trade in services grew by about 8 percent per year, while trade grew by about 6 percent in many developed countries like U.S., UK, Singapore developed into a multinational business. Many countries has been motivated and turned their attention into services more. Thailand Business operators must adapt and keep pace with the driving force of globalization. To form special features of the service for the new economy, the service should be available to provide services on site. The product of service depends on the satisfaction of the assessment of the service itself. We should produce the services to be the tangible property such as equipment.

Therefore the employees of the service providers will need to build up the model and management practices to monitor and control the standards. These can improve and develop the services and their organizations to be recognized. The customer satisfaction of users on a regular service basis will depend on the time rather than the result. Therefore, it is necessary to have the support of the government in order to achieve the economies of scale of the Thailand business services. We prepare prior to the development of a business that has steadily become the global market.

Painting and the Environment

The important health and safety issues in automotive repair included injuries involving sprains and strains, cuts and lacerations, and bruises and contusions, events such as contact with objects or equipment, slips, trips and falls, and overexertion, injury sources like floor and ground surfaces, parts and materials, hand tools and vehicles, fatalities from contact with objects or equipment, especially struck by falling objects, transportation events, and fires and explosions, workplace violence and elevated homicide and suicide risks, exposures to chemicals, biological materials, vehicle exhaust, and asbestos. (Bureau of Labor Statistics, 2012)

Environmental concern, Paint is the biggest environmental problem that car factories face. Dealing with this takes up a major proportion of environmental expenditure. Fixed capital costs are high for emissions and waste treatment equipment. Equally, operating costs are substantial due to high energy and material use as well as material waste treatment and disposal. All this adds up to major difficulties in balancing costs in the paint plant while meeting regulatory and production expectations. The three key areas of environmental concern are as follows:

- Waste – The primary source of hazardous waste from automotive plants is again from paint processes. Although much material is recovered, this waste is typically around 25 percent of a plant's total hazardous waste by weight. The solvents and heavy metals left in residues mean that it is classified as hazardous through European law. Most of this results from cleaning processes in the paint plant.

- Energy – Curing ovens use vast amounts of energy for the paint to 'go off' in an acceptable time. The more speed required, the higher the energy use. This is further exacerbated by water-based paint requiring more time in curing ovens than solvent-

based paint. Powder coats also require more use of ovens due to the thickness of coats for curing

•Water-Based Car Paint - Waterborne Paints People hate change, especially when the government forces it down their throats. Perhaps one of the most notorious regulation changes faced by the automotive refinishing industry in Southern California (but likely to be adopted nationwide eventually) was the lowering of the legal limits of Volatile Organic Compounds (VOCs) contained in products used to paint cars.

VOC is a very broad term used to label certain chemicals that evaporate very easily from the liquids they were mixed in solution with. Lots of products emit VOCs-stuff like paint, paint thinner, and gasoline all emit gases we often refer to as fumes or vapors. VOCs aren't just limited to paint products, though; plastics release VOCs as they age. In fact, VOCs are even emitted in nature by certain plants and trees. Nevertheless, these chemicals are believed to react with gases in the atmosphere and contribute to pollution, smog, toxic death from above, and all that doom and gloom stuff.

To lessen the amount of VOCs released into the atmosphere every year, the California Air Resources Board set tighter regulations. Basecoat paint was one item where a reformulation, switching to waterborne from solvent-based paint, would allow refinishers to meet the new standards. The new standard became waterborne paints, and manufacturers responded with new lines of automotive paint.

We got the lowdown from Brian Ferre, custom painter and instructor at Los Angeles Trade Technical Institute. He tells us waterborne paint is not a new invention-it's been around for more than a decade and has been in wide use in Europe for many years. Most of today's new cars are sprayed with waterborne paint at the factory, too. It received an undeserved bad reputation because of infamous problems that plagued a number of GM cars in the late '80s. The paint would peel off in sheets after a couple of years in the sun. Ferre tells us that particular paint-lifting problem was due to incompatibility between the paint and the primer. The paint itself was OK. Much more development and testing have been done since then, and today's waterborne paint is at a quality level on par with traditional solvent paint.

Because this is an introduction to waterborne paint, we won't delve into the chemistry, but there are a few key points to remember that will make the process easier. The only step affected by the switch to waterborne paint is the basecoat. Though there are some

waterborne primers, you'll generally still use traditional, solvent-based primer and clear. As a result, all current waterborne paint is intended for a basecoat/clear coat system. The colors dry to a dull, satin finish, not a glossy one. You'll need to clear it if you want it to shine. Lastly, waterborne paint dries differently than solvent-based paint. It's critical to have enough airflow across the panel to allow the paint to dry fully before spraying the clear coat.

Table 1.2 Pros and Cons of Water Based Paint

Pros And Cons Of Waterborne Paint	
Pros	Cons
Excellent coverage	More expensive
Uses less product	Different spray procedure
Easy cleanup	Different drying procedure
Saving the Earth one car at a time	Need a dedicated spray gun

Source: www.carcrazy.com, 2010: Online

How Waterborne Paint Is Changing the Automotive Industry

Paint has long been a necessary product in the automotive world. Customizers and aftermarket manufacturers are among those who require paint products to conduct business. Perhaps the most prolific painters in the automotive sector, other than OEMs, would be shops operating in the repair and refinish segment. These are auto-body shops that make a living on being able to paint fast, match colors perfectly and be economical in the process.

Regards figure 8, In California, where regulation of volatile organic compounds has been in place for years, use of waterborne paint in body shops and custom shops is already commonplace.



Figure 1.6 Waterborne paint is commonplace

Source: www.carcrazy.com, 2012: Online

Because volatile organic compounds (VOC) in paint have been recognized as bad for the environment, there is change afoot that will eventually affect practically everyone who paints. A number of states around the country have enacted regulations that are gradually forcing shops to reduce VOC emissions. These regulations, in a nutshell, mean that American paint shops will need to use waterborne paints in order to comply. The move to less toxic, water-based finishes is already well under way elsewhere. Waterborne paints are currently in extensive use in Europe and Canada, and many OEMs now use water-based paints on their newest products. Paint manufacturers are also moving quickly to develop low-VOC primers and clear-coat products in addition to the color coats available now.

In high-smog states like California, regulations requiring low-VOC technologies have been in place for years, and now other states are following suit. To find out what these requirements will mean as low-VOC requirements spread across the country, SEMA News contacted a variety of stakeholders in the paint industry. We specifically sought information about the newest technology as it stands today and what it will mean to companies that paint.

The consensus among the people we talked to is that the transition to waterborne finish products may not be as difficult or as costly as some first supposed. In fact, the changeover may bring with it a number of advantages.

Paint Formula Advancements

One of the biggest areas of activity is at the paint manufacturer level, where the transition to waterborne paint has prompted paint companies to develop new products from scratch. Some are now releasing second- and third-generation water-based paints.



Figure 1.7 SEMA paint booth for waterborne paint transition

Source: www.sema.com, 2012: Online

-An entirely new paint booth, such as this one on display at the SEMA Show, would not likely be required to make the transition to waterborne paint. However, an ample supply of clean air is an upgrade most production body shops choose to make in order to shorten drying time.-

“We’ve been doing waterborne for quite a long time; CroMax Pro is our third-generation waterborne product,” said Harry Christman, brand manager for DuPont Refinish. “This is a product that has a brand-new technology.”

The newest waterborne paint from DuPont is a good example of the kinds of paints the industry will need to come up with to help shops achieve low-VOC requirements. It’s formulated with 88% less solvent but 25% more pigment. The result is a product that offers advantages but also requires re-educating painters.

1.2 Statements of the Problem

Paint is the biggest environmental problem that car factories face. Dealing with this takes up a major proportion of environmental expenditure. Fixed capital costs are high for emissions and waste treatment equipment. Equally, operating costs are and

disposal. All this adds up to major difficulties in balancing costs in the paint plants while meeting regulatory and production expectations.

1.3 Research Objectives

1. To study the factors of demographics (gender, age, education level, occupation and monthly income)
2. To study factors of car garage services (Location, Service quality, Pricing and Customer Care)
3. To study the customer decision making factor.
4. To study the demographics and customer decision making factor affecting the car spray between Traditional based and Water based paint in Bangkok Metropolitan Area.

1.4 Scopes of Research

This research aimed to determine the customer decision making in the services provided by Car garage after-sales service center in Bangkok Metropolitan Area. The content composed by three independent variables is:

1. Demographic factors which are Age, Gender, Education, Car Aging, Monthly income.
2. Car garage factors which are Location, Service quality, Pricing, Customer care, the dependent variable is customer decision making.

Population

The study comprised a sample of 411 customers (Taro, 1967) who received the services from the car garage by questionnaires survey for 3 months.

Research Question

Do these demographic and car garage service factors affect the customer decision making of Car Spray between Traditional Based Paint and Water Based Paint in Bangkok Metropolitan Area?

1.5 Limitations of Research

There are many limitations for this study. Firstly, this research study focus on behavior, perception and attitude the researcher found that the consumer may not be convenient and cooperate well to provide the opinion of the related of factors so the opinion may different by individually background of respondent.

Secondly, the respondents are not only residence in Bangkok. Therefore, the research finding may not be covered and generalized for other geographical areas where located on outside Bangkok Metropolitan Areas or other countries.

Thirdly, this research study is conducted in a preset specific and period of limited time. Thus, the findings result possibly not be generalized for varies of the time period.

Lastly, the total sample size is unknown but only 411 respondents is selected as a population in order to represent the whole target population.

1.6 Significant of the Research

Although customer decision making for car garage or center has often been mentioned in consumer research, the meaning of the term "car spray" has not been sufficiently specified. Thus, some important differences among traditional and water base spray have not been recognized or examined. This article uses conceptual framework to distinguish between two kinds of traditional and water base car spray. We identify the cues that lead to the assessments of each kind and, based on data collected at two car garages, we show that these cues can have a different influence on the benefits of customer decision making. Our results also contribute to an understanding of the choice of car spray and car garage as part of consumption.

1.7 Definition and Terms

Demographic segmentation consists of dividing the market into groups based on variables such as age, gender family size, income, occupation, education, religion, race and nationality. As you might expect, demographic segmentation variables are amongst the most popular bases for segmenting customer groups. (Riley, 2012)

Age Consumer needs and wants change with age although they may still wish to consumer the same types of product. So Marketers design, package and promote products differently to meet the wants of different age groups. Good examples include the marketing of toothpaste (contrast the branding of toothpaste for children and adults) and toys (with many age-based segments).

Gender segmentation is widely used in consumer marketing. The best examples include clothing, hairdressing, magazines and toiletries and cosmetics.

Monthly income is another popular basis for segmentation. Many companies target affluent consumers with luxury goods and convenience services. Good examples

include Bank and Elegant Resorts - an up-market travel company. By contrast, many companies focus on marketing products that appeal directly to consumers with relatively low incomes. Examples include Aldi (a discount food retailer), Air tours holidays, and discount clothing retailers.

Occupation Businesses who offer products and services to individuals and businesses in specific professions or industries may use their demographic data to segment their markets by occupation. For example, if you sell a marketing e-book targeted to C-level marketing executives, you can segment them from your overall list of customer occupations then focus your advertising activities around reaching the chief marketing officers who make up your target market. (Brookins, 2013)

Education segmentation targets specific people who specialize in a certain field. For example, a company looking to hire an accountant will need to focus on the candidates with accounting degrees and should have CIMA qualifications. (Chartered institute of management accountant.

Location The right location is often critical to the success of a business. Location is particularly important for retail businesses. Poor location decisions are difficult and expensive to overcome. If you are buying an established business it is still necessary to check the suitability of the location because it is reflected in the price paid for goodwill. (Australian Government, 2013)

Service quality is a comparison of expectations with performance. A business with high service quality will meet customer needs whilst remaining economically competitive. Improved service quality may increase economic competitiveness. This aim may be achieved by understanding and improving operational processes; identifying problems quickly and systematically; establishing valid and reliable service performance measures and measuring customer satisfaction and other performance outcomes.

Pricing is the process of determining what a company will receive in exchange for its products. Pricing factors are manufacturing cost, market place, competition, market condition, and quality of product. Pricing is also a key variable in microeconomic price allocation theory. Pricing is a fundamental aspect of financial modeling and is one of the four Ps of the marketing mix. (The other three aspects are product, promotion, and

place.) Price is the only revenue generating element amongst the four Ps, the rest being cost centers.

Customer service is the provision of service to customers before, during and after a purchase. Customer service is a series of activities designed to enhance the level of customer satisfaction – that is, the feeling that a product or service has met the customer expectation.(Turban, 2002)

“The importance of customer service may vary by product or service, industry and customer. The perception of success of such interactions will be dependent on employees” who can adjust themselves to the personality of the guest, according to Micah Solomon. From the point of view of an overall sales process engineering effort, customer service plays an important role in an organization's ability to generate income and revenue. From that perspective, customer service should be included as part of an overall approach to systematic improvement. A customer service experience can change the entire perception a customer has of the organization.

“Whichever approach is adopted, attributes can typically be aggregated into three main categories that yield a comprehensive description of the customer relationship. These categories are; Satisfaction and alignment, Trust and values and New value.(M Sathish, 2013)

1.8 Conceptual Framework

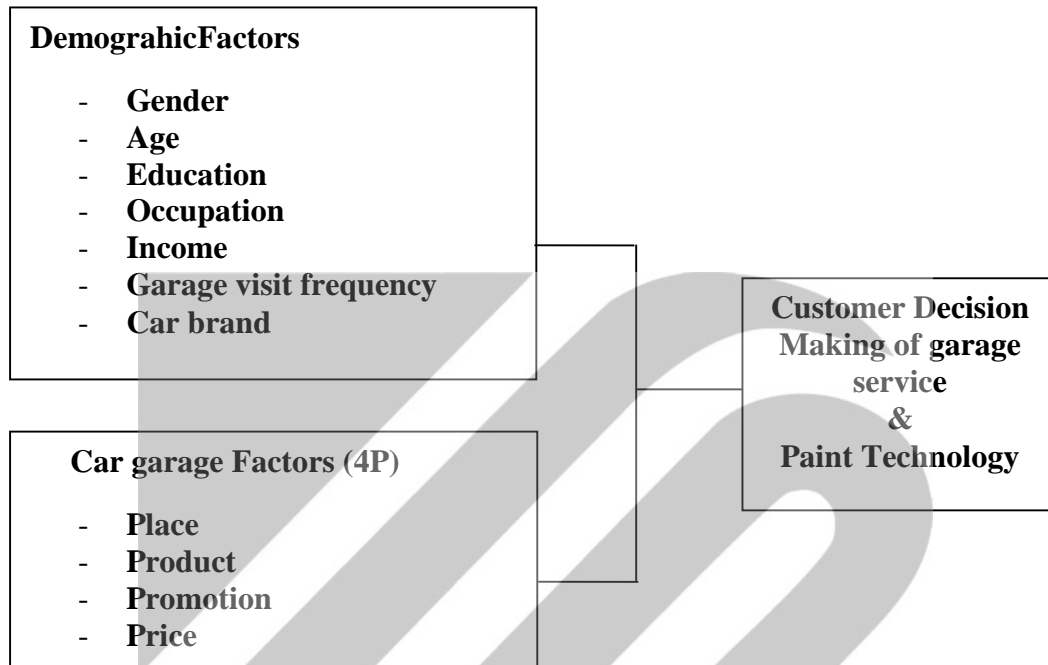


Figure 1.8 Conceptual Framework

Source: Sathish, 2013

1.9 Research Hypothesis

H1) Gender has significant of attitudes towards customer decision making of the garage service

H2) Age has significant of attitudes towards customer decision making of the garage service

H3) Education level has significant of attitudes towards customer decision making of the garage service

H4) Occupation has significant of attitudes towards customer decision making of the garage service

H5) Income has significant of attitudes towards customer decision making of the garage service

H6) Frequency garage visited has significant of attitudes towards customer decision making of the garage service

H7) Car brand has significant of attitudes towards customer decision making of the garage service

H8) Place factor has significant of attitudes towards customer decision making of the garage service

H9) Product factor has significant of attitudes towards customer decision making of the garage service

H10) Promotion factor has significant of attitudes towards customer decision making of the garage service

H11) Price factor has significant of attitudes towards customer decision making of the garage service

H12) Demographics has significant of attitudes towards “Solvent based” paint of the garage service

H13) Demographics has significant of attitudes towards “Water based” paint of the garage service

H14) Garage service factor; 4P has significant of attitudes towards “Solvent based” paint of the garage service

H15) Garage service factor; 4P has significant of attitudes towards “Water based” paint of the garage service.

CHAPTER 2

LITERATURE REVIEWS

2.1 Introduction to Automobile Industry

Automobile is the motorized vehicle consisting of four wheels and powered by an internal engine. Automobiles are used to transport people and items from one location to another location. After years of various designs, inventors were able to develop a functional general design that is utilized by major automakers as the foundation of their designs. Automobiles generally use gasoline to fuel the internal engine, but technological advances have led to the design of cars that run on electricity and even water. (Dictionary.com, 2014)

Automobile, self-propelled vehicle used primarily on public roads but adaptable to other surfaces. Automobiles changed the world during the 20th century, particularly in the United States and other industrialized nations. From the growth of suburbs to the development of elaborate road and highway systems, the so-called horseless carriage has forever altered the modern landscape. The manufacture, sale, and servicing of automobiles have become key elements of industrial economies. But along with greater mobility and job creation, the automobile has brought noise and air pollution and automobile accidents rank among the leading causes of death and injury throughout the world. But for better or worse, the 1900s can be called the Age of the Automobile, and cars will no doubt continue to shape our culture and economy well into the 21st century.

Automobiles are classified by size, style, number of doors, and intended use. The typical automobile, also called a car, auto, motorcar, and passenger car, has four wheels and can carry up to six people, including a driver. Larger vehicles designed to carry more passengers are called vans, minivans, omnibuses, or buses. Those used to carry cargo are called pickups or trucks, depending on their size and design. Minivans are van-style vehicles built on a passenger car frame that can usually carry up to eight passengers. Sport-utility vehicles, also known as SUVs, are more rugged than passenger cars and are designed for driving in mud or snow.

Worldwide automotive vehicle manufacturing output declined as a result of the recession by 4.6% in 2008 and 12% in 2009 to around 58.3 million vehicles produced.

The industry recovered strongly in 2010 and production output increased by over 25% to over 72 million vehicles. This growth is driven mainly by the emerging markets in the Asia Pacific region, where China has overtaken Japan and the US to become the largest single country producer of automotive vehicles in the world. The Asia Pacific region accounts for over 45% of vehicles produced. Western Europe is the next largest regional industry, accounting for around 25% of vehicle output in 2009 followed by North America, which produced just under 15% of global vehicle output. (PRA, 2011)

In 2007 manufacturing plant in more than 25 countries produced 73.2 million passenger cars. The automobile is built around an origin various systems supply the origin with fuel, cool it during operation, lubricate its moving parts and remove exhaust gases it creates. The origin produces mechanical power that is transmitted to the automobile's wheels through adverting which includes a transmission. One or more drive shafts, a differential gear and axles. Suspension system which include spring and shock absorbers, custom the ride and help protect the vehicle from being damaged by bumps heavy loads and other chassis. Wheel and tires support vehicles on the road way and when rotated by powered axles, propel the vehicle forward or backward. Steering speed. An electrical system start and operate the engine monitor and control many aspects of the vehicle operation and powers such components as head light and radios. Safety features such as bumpers air bags and seat belts help protect occupants in an accident.

2.1.1. History of Automobile Industry

The history of the automobile actually began about 4100 years ago when the first wheel was used to transportation in India. In the early 15th century Portuguese arrived in china and the interaction of the two culture leaded to variety of new technologies including the creation of a wheel. By the 1600's small steam powered engine models had been developed but it was another century before a full sized engine powered vehicle was created.

(Lienhad, 2000) In 1769 French Army Officer Captain Nicolas Joseph Cugnot's built what has been called the first automobile Cugnot's steam powered vehicle carried four person. Designed to move artillery pieces. It has a top speed of a little more than 3.2km/h and had a stop every 20 minutes to build up a fresh head of steam. As easily in 1801 successful but very heavy steam automobile type introduced

in England laws barred them from public road and forced their owners to run them like train or private tracks their owners to run them like train or private tracks in 1802 a steam powered coach designed by British Engineer. Richard Trevithick journey more than 160km from Cornhill to London. Steam powered caught the attention of other vehicle builders. In 1804, American inventor Oliver Evans built a steam powered car in 1828.

British inventor a valter Handcock build a series of steam carriages in the mid 1830's thus were used for the first omnibus service in London. By the mid 1800's England had an extensive network of coach line. Horse-drawn stagecoach companies and the new rail road companies pressured the British parliament to approve heavy it's on steam-powered road vehicles. The tolls quickly drove a steam quickly drove a steam coach operators out of business.

During the early 20th century steam cars were popular in the United States. Most famous was the Stanley steamer, built by American Twin brothers Freelan and Francis Stanley. A Stanley steamer established a world land speed record in 1906 of 205.44 km /h. Manufactures produced about 125 models of steam powered automobiles, including the Stanley until 1932. The first successful self-propelled road vehicle was a steam automobile invented in 1770 by the French engineer Nicolas Joseph Cugnot.

1982: JVA and Chinese agreement executed between Suzuki and Goal Suzuki acquire 26% stated in Maruti. 1984: 14th December 1983 Maruti 800 delivered to Mr. Harpal Singh by Indira Gandhi. 1984: Launches Omni 1985: Launches Gypsy 1986: Reaches me 1, 00,000 vehicle mark since commencement of production. 1987: export first lot of 500 cars to Hungary. 1988: Reaches as installed capacity of 1, 00,000 units 1990: Launches a three box car, the Maruti 1000 1991: Reaches cumulative indigenization of 65% for all vehicle produced. 1992: Suzuki increases its state in Maruti to 50% 1993: Launches Zen 1994: Launches Esteem 1995: Produces the one million vehicles since the commandment of production. 1996: Launches a 24 hour emergency on road vehicle service started in 21 cities in India. 1999: Launches Malone and Wagoner 2000: Rated No:1 in JD power Asia Pacific's 2001 India customer satisfaction index study Bags by honors of the shiny to done annually till date. 2001: Launches Versa 2001-2002: Launches true value Maruti finance, Maruti insurance corporate team. (Lienhad, 2000)

2.1.2. Marketing of Automobile Industry

Most auto repair shops are very good when it comes to fixing cars, but when it comes to marketing they are out of their element. When the economy is doing well business is usually good, but when the economy is slow and people are holding off on having their automobile repaired, it can be very tough. When times are slow mechanics have to think about their marketing or lack of marketing and find new ways to get customers coming in the door.

The following is comprised of the top ten marketing strategies for auto shops to use to get local customers which are Radio Advertising, Local Newspapers, Physical Directories, Local Flyers, Sending Cards, Strategic Alliances, Referral Programs, Social Media, Online Review Sites / Directories, Word of Mouth (PRWeb, 2014)(Federation of Thai Industry, 2014) stated that when choosing a repair shop you need to ask for recommendations from friends, family, and other people you trust. Look for a repair shop before you need one to avoid being rushed into a last-minute decision and shop around by phone and online for the best deal, and compare warranty policies on repairs. And ask to see current licenses if state or local law requires repair shops to be licensed or registered. Also, your state Attorney General's office or local consumer protection agency may know whether there's a record of complaints about a particular repair shop. Finally, make sure the shop will honor your vehicle's warranty.

The problems in marketing due to intangibility are no samples, no display, production and consumption are inseparable. There are no inventories of service and Intermediary's roles are different. Consumption is a part of the delivery system.

European drivers are profiting from increased market transparency and lower service costs. The cost of auto repairs and parts has declined steadily in Germany in recent years: From 2003 to 2010, maintenance cost per year and vehicle sank by an average of 21 percent. This significant reduction is less the result of intensified competition among service providers than of better-quality parts and thus longer maintenance intervals: At the same time, the cost of parts has risen only slightly. Book 2012 shown the survey that which criteria are most important for customer to select a repair shop: At the top of list are value for money and part of quality. Customers feel that they get the best value for their money and part quality. Customers feel that they get the best value for their money from automotive centers, fast, fitters, and independent

repair shops, but when it comes to parts quality, customers prefer franchise repair shops and traditional authorized repair shops.

In any business we must and cannot avoid doing the marketing or promotion. Particularly the new opening business which is not well known, we need to do much promotion until there is enough customer and then we can reduce the promotion.

However, we need to continue the promotion, do not stop at all otherwise our car garage will be forgotten from the customer. Chanprim and Thiangtam stated that their study found the relation with the customer behavior model. Kotler (2003) mentioned that the Buyer's response or the consumer purchasing behavior or buyer, the consumer will have the decision in the Product choice, Brand Choice, Deale Choice, Purchasing timing and Purchase amount.

Moreover this also related to the service quality of Johnson (1995) that the Service Quality and place must make the confidence and convenience to the person contact with. Dupont brought the new technology to apply with the marketing concept because the quick repair is the good choice for the customer in term of the quick then the quality competitive in the car garage market has been raised.

Quick Repair create the new opportunity and segment to see the new requirement of the consumer helping the competitive advantage and differentiate from the competitor which will be one of the Blue ocean as (Ritnarong, 2014)referred that to open the new segment is to open the new opportunity.

Social media might be one of the good marketing tool as there is one of the article stated on "How an Auto Repair Shop is Winning Female Customers With Social Media"(Julig, 2013)Moreover some quick repair business has been interested from the big insurance company in Thailand which are on the process discussed with one of the famous car paint company, which the small point insurance will be the new potential of the insurance company. If the insurance company join, the marketing communication between the car painting company and insurance company will increase the marketing more for example brochure then will continue to TV and news marketing.

From many research studies involved in the factors affecting the automobile repair service decision making.(Withaya A., 2013) Researched the factor affecting the automobile repair service customer decision making in Bangkok found that the whole picture of product, service and place have the most important for the decision making

towards the automobile repair service choice. For the marketing factor has the medium important for the decision making. Blackwell et al, (2001) state that the needs of consumers should not be divided into two major categories, but in subcategories that should include and explain better the different consumer needs. Some of these needs are the physiological needs, the need for health and safety (as it is the case of the car – safe travels), love and companionship, the need of financial resources, the need for pleasure, the need for the creation of the social image of the individual (buying a specific car brand to enhance personal prestige), the need of possessing (everybody has a car) and the need of information and (Pakawat, 2012) study the marketing-mix factors that affect loyalty in choosing a car-care service provider in Nong-prue District, including personal factors, such as gender, age, educational level, and income. result showed all marketing-mixed factors (product, price, place, promotion, process, people, and physical evidence) have impacts on customer loyalty in 4 dimensions, consisting of word-of-mouth, repurchase, price sensitivity, and complaining behavior with the automobile repair service. Jamdara (2005) mentioned that the factors influenced the customer decision making in selecting the automobile service repair in Udonthani. The result found that the respondents has the opinion level in the high range when consider by each point, 1st is the personal point then follows by product and service, technique and process, physical evidence, service channel, price and promotion lastly.

Nowadays the business cannot stay alone. We need to have the network connection in the same entrepreneur group. Because if their automobile repair shop has lots of tasks and cannot do it on time, they will advise or pass their job to us by % share. Or we can exchange any information for example Insurance. (Which company pay better or has the financial problem). Moreover we can ask for the repair technique, problem solving in each situation which will be benefit to us. Or we can create the network connection with other shop. Generally when the customer trusted us when they have any problem, they will think about us to consult whatever repair problem.

The respondent who has the different sex, age, educational level, occupation, marital status and car knowledge will give the important to the automobile repair service marketing mix differently except only the income. (Intaratoot, 2009). Kamphoe (2012) also mentioned that the car paint business aftersales service, the Dupont company will cooperate with the customer design the management and marketing plan

for the Dupont car paint quality with the concept of “Global Thinking Local Acting by the skill training since the color identification, paint decoration, spraying.

2.1.3 Customer Satisfaction changes Automobile Industry

Research Problem the attributes and habits of people are changing. There changes are affecting the automobile industry. So a lot of new companies are entering this field. As a result consumer perception in terms of models and concepts about vehicle are changing. In this stability competition will be tough and high. Satisfaction of customer can be measured in terms of whether he is satisfied after purchase by the providence of offers and other performance which is expected by him from the company. Satisfaction of customer is essential for the growth of the company. We can understand customer satisfaction through establishing complaint and suggestion system which is by providing opportunity to give their suggestion and complaints like their likes and dislikes, customer satisfaction survey which by conduction survey among customers to know their satisfaction and by analyzing the reason of losing customers or their switching to other supplies. If these is a good competition, there is a need to perform well from the part of organization. If may lead to innovation, new ideas, technologies and new method for retaining customers.

Now in India Indus is facing lot of competition from many dealers of Maruti Suzuki and other automobile manufactures. So it is very essential to study the “customers after sales satisfaction towards Maruti Suzuki and Indus Motors Objective

Primary Objective: To know the buyers attitude towards Maruti Suzuki after sales based upon style, power, driving comfort, and after sales service.

Secondary Objective: To find out the attitude of customer towards other companies like Hyundai, Tata, and Toyota etc.

Market Survey report using structured questionnaire Secondary Data Source1. Other data collected from company2. Data collected from magazines and websites. Review of literature shows the previous studies carried out by researchers in the field. The main purpose of the review of literature is to indicate the problems that are already investigate and those that need further investigation. The researches should undertake extensive literature survey connected with the problem. The researches should undertake extensive literature survey connected with the problem. The researcher should refer academic journals conference, proceeding, Govt. reports books etc.

Depending on the nature of the problem. A critical reading of relevant literature becomes dispensable not only in locating the research problem, but also in analyzing the procedures. In this process it should be remembered that.

One source lead to another. The studies will help the organizations to implement. There valuable suggestions and opinions. At Indus itself cot of studies are conducted by various management students. Some of the suggestion and findings are as follows.1) Aiswarya. V.III Semester; MBA student at K.M.C.T school of Business Calicut found that Indus i.e. focusing on the problem area. She suggested focusing on medical area, which is too effective.2) Study conducted by Pooja Krishna, a sales executives found that 24.94%customers are known the Indus through others. Really it is a failure of sales and market executives.3) Ajithkumar, the student of Farook institute of management studies in 2007says that the repair work should be done in speed. Indus implements this suggestion now.4) The study conducted by Laurence, the student of MBA find out that 22% of the customers failed to be satisfied by the facilities provided by Indus. And he suggest that Indus should concentrate more on list customer's survey. Collection of customer's suggestion.

2.1.4 Products design impact the Automobile Industry

(Teabtakob, 2012)researched on the customer decision making on the car garage in Prathumthani area and found that the service quality is the most important factor for the decision making consequence by the location by the home or office convenience which close to the after service quality, staff, price and service and physical environment. By the service readiness is the medium factor for the car garage decision making in Prathumthani area. From the study we found that the education and occupation has the influence for the decision making which is not different significantly. For the age, monthly income and car garage model has different in the customer decision making differently.

2.1.5 Automobile Industry in Thailand

Thailand shows impressive economic growth over the past ten years and is quite stable as an economy both economically as well as in terms of social indicators. Despite some political instability, Thailand has strong fundamental indicators and shows every indication of remaining a vibrant South East Asian Economy, fertile for the growth of future clusters. The largest country level competitiveness issues plaguing Thailand are

the problem of innovation and access to technology, a properly skilled and trained workforce, tariff and trade restrictions, and access to credit as a consumer and small business.

The automotive cluster has been the priority sector for the economy of Thailand. It is the third largest sector contributing 12% of the GDP. The cluster contributes massively to international export and trade inflows. With the government-led support, the cluster has evolved from a protectionist model to a liberalized location that has vibrant foreign OEMs competition, an extensive network of related and supporting industries, unique demand condition for light commercial vehicles due to poor rural infrastructure and abundant low-cost, and low skilled labor force. Three Institutions for collaborations (IFC) provide overall direction of the cluster as well as acting as liaisons working in conjunction with the government. Despite its achievements in the past decades, Thailand needs improve its capability, skills and infrastructure to retain its competitive advantage. Both public and private sectors have to collaborate, support, fund, and incentivize players both domestic and foreign to upgrade its innovative capacity and fill in gaps in its cluster environment going forward.

2.2 Paint Technology in Automobile Industry

Parking garage, air emissions were monitored inside an enclosed parking garage since winter 2010, with a total of seven measurements during special event activities. Significantly higher average CO concentrations were observed during special events than found during regular periods. Exiting vehicles were responsible for the increased CO concentrations, and the CO emissions were found to accumulate inside the enclosed garage to relatively high concentrations. The simultaneously measured CO concentrations ranged from 0.05 to 44.49 ppm.(Hu, 2012)

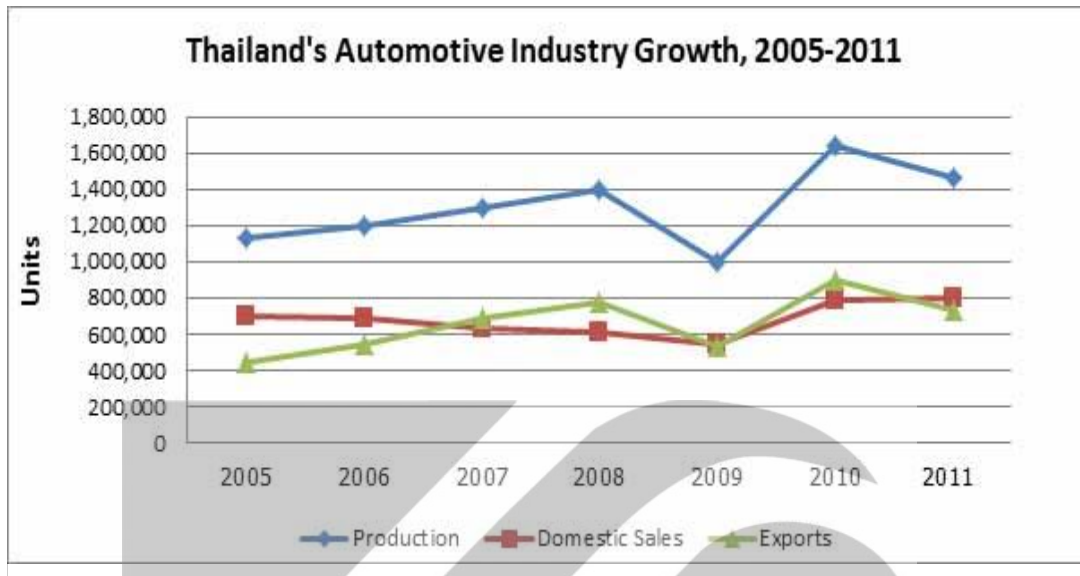


Figure 2.1 Thailand's Automotive Industry Growth, 2005-2011

Source: Thai Automotive Institute, 2011: Online

Paint has long been a necessary product in the automotive world. Customizers and aftermarket manufacturers are among those who require paint products to conduct business. Perhaps the most prolific painters in the automotive sector, other than OEMs, would be shops operating in the repair and refinish segment. These are auto-body shops that make a living on being able to paint fast, match colors perfectly and be economical in the process. The coating processes used by the automotive industry for metal bodies and plastic components differ. Coating of bodies is carried out in-house by the OEM whereas plastic components are normally supplied to the manufacturer ready finished by the Tier 1 or 2 suppliers. All coatings used by the Tier 1 and 2 suppliers must be fully approved by the OEM. Although there are some variations depending on company manufacturing strategies and production line design, all of the mass-production vehicle manufacturers typically adopt a similar coating process. The standard approach is a three or four coat process, the coatings layers being: Electrocoat, Primer surface, Top coat. (PRA, 2010)

Because volatile organic compounds (VOC) in paint have been recognized as bad for the environment, there is change afoot that will eventually affect practically everyone who paints. A number of states around the country have enacted regulations that are gradually forcing shops to reduce VOC emissions. These regulations, in a

nutshell, mean that American paint shops will need to use waterborne paints in order to comply.

The move to less toxic, water-based finishes is already well under way elsewhere. Waterborne paints are currently in extensive use in Europe and Canada, and many OEMs now use water-based paints on their newest products. Paint manufacturers are also moving quickly to develop low-VOC primers and clear-coat products in addition to the color coats available now.

In high-smog states like California, regulations requiring low-VOC technologies have been in place for years, and now other states are following suit. To find out what these requirements will mean as low-VOC requirements spread across the country, SEMA News contacted a variety of stakeholders in the paint industry. We specifically sought information about the newest technology as it stands today and what it will mean to companies that paint.

The consensus among the people we talked to is that the transition to waterborne finish products may not be as difficult or as costly as some first supposed. In fact, the changeover may bring with it a number of advantages.

Auto paint has changed dramatically since the late 1800s, and today's market offers no less than four different types to choose from. Let's take a quick look at the different kinds of auto paint and the advantages and disadvantages of each.

The four basic types of paint available today are: acrylic lacquer, acrylic enamel, and acrylic urethane and water-based. We'll drop "acrylic" and simply refer to them as lacquers, enamels, urethanes and water-based.

2.2.1 Solvent Based Car Paint

Lacquer-based auto paint was popular between the mid-1920s and 1960s, and is still available today, though it has become illegal in certain areas. Lacquer paint is cheap and goes on easy for the inexperienced painter, plus it provides a nice high gloss. However, it also chips easily being a relatively "soft" paint, and it doesn't stand up well to UV and chemicals, making it a short-lived paint job. Lacquer auto paint is available in aerosol spray cans and for use with spray guns, but is not generally recommended.

Enamel paints dry to a hard shell making them tougher than lacquer paints. Professional shops bake on enamel paint in heated bays or "ovens," but enamels are also available in aerosol cans and for use with spray guns. Enamels, while tougher than

lacquer, do not lay down as easily as lacquer paint, making them trickier for the Do-It-Yourselfer (DIYer) to apply. This translates to more finishing work. Some enamel colors require a clear topcoat, known as a two-stage system, while others can be used alone, referred to as a single-stage system.

Urethane paints are newer than enamels, are more expensive and more trouble, but they lay down easily like lacquer while having the toughness of enamels. This auto paint requires three products: the color, a reducer to thin the color to the right viscosity for the spray gun, and a catalyst used to accelerate drying time. Once the paint is mixed, it must be used quickly and unused paint must be discarded. Urethane auto paint is highly toxic, and though a facemask is standard for all paint jobs, gloves, coveralls, and a respirator are mandatory for working with urethane auto paint.

Like enamels, urethanes can be used alone or in multi-stage paint systems that utilize a final protective clear coat. A two-stage urethane paint system is the most recommended system as it provides easy-on paint, minimum finish work, and optimum results: a paint job that, with a little care, can look brand new year after year. Urethane clear coat is also purchased as three products: clear, reducer and catalyst to be used with a spray gun, though there is form of urethane clear coat available in an aerosol can.

2.2.2 Water Based Car Paint

Waterborne technology has increased share considerably to 15% penetration. Powder coatings have 4% technology share. Solvent borne accounts for 81% of the technology, of which 36% are medium solids and 45% are high solids. (PRA, 2010)

The newest auto paint technology has brought us non-toxic water-based paints. These paints are the most versatile of all, able to be applied to metal, primer, or to an existing paint job. Water-based auto paint is especially popular for use in adding graphics to a vehicle or motorcycle, but can also be used to paint the entire vehicle. Being non-toxic this choice is perfect for the DIYer to use in the home garage, however it does require a topcoat of clear urethane to protect the paint.

Water based paint, this system is the most common type in use by manufacturers and repairers today. The color coat is water based but still needs to be protected by a two-pack type clear or lacquer coating. Being water based it is more environmentally friendly. Because of the mixture of paint types, repair is difficult for the DIY painter. (DT concours, 2012)

Water-based paint is no doubt the future of the auto paint industry, however the line of colors is still expanding. If looking to add graphics or change your vehicle's color, water-based auto paint is an option. If looking to re-paint a panel with a need to match factory paint, you might have to wait for the introduction of pre-mixed factory colors, or let a professional shop do the job for you.

The water based paint gives productivity advantages across the entire painting process. The performance of water based paint is fully equivalent to solvent-based paints. Combined with other water based paint product systems, productivity can be enhanced even more.

1. Use straight from the mixing machine: Water based paint is ready to spray... direct from the mixing machine, saving you time.

2. Quickly matched colors: Using the advanced color matching systems, accurate color selection is made in an instant.

3. Less drying time: times are eliminated because you can spray wet-on-wet. Drying can be accelerated using forced air.

4. Primers matched to basecoats: Value Shade primers are available in a range of grey reflective values that match the lightness values of:

Ease of application:

1. Water based paint is ready to use, straight from the mixing machine.

2. Easy preparation: Working with water based paint is very easy, and paint preparation is simple. Just mix the tints and the paint is ready to apply.

3. User friendly: All who use water based paint for the first time agree: water based paint is a pleasure to work with. And this ease of application delivers the streamlined procedures that you need to ensure that you remain competitive and profitable in today's dynamic market.

4. Excellent basecoats: Water based paint waterborne basecoats are designed to help you achieve the perfect refinishing job much more easily, by covering with less effort.

5. Perfect colors: An excellent match is the essential element for customer satisfaction. When you first begin using water based paint, you'll start with a completely new system. You'll find yourself enjoying several advantages that aren't available with most conventional paint systems.

6. Excellent color matches: The water based paint color system provides advanced color matching tools that make it simple to select the exact color formula. More than 20,000 color formulas are available. User-friendly color tools consistently make perfect color matches quickly attainable.

7. Superb aluminum and pearl flake control: Aluminum and pearl flake control ensures that metallic and pearl effects perfectly match the original paint.

8. Comprehensive range of support tools: Water based paint Spectrophotometer helps you find the exact required water based paint color formulas. The user friendly water based paint color matching System produces optimal color recipes using a PC and compatible water based paint processing software.

9. Color properties and durability: Water based paint has excellent color properties. The basecoat and clear coat work together to guarantee long-lasting, vibrant color durability.

10. Clear coats: The compliant clear coats for Environmental Legislation conformance:

Water based paint was developed to satisfy current and forthcoming European emissions legislation. By using less solvents, it reduces waste, as well as the smell of solvents in the air. All water based paint products have been developed with exceptional care to reduce waste. The basic carrier for all water based paint components is water. This results in the lowest possible VOC for current basecoat technologies. In fact, all water based paint colors have a VOC of less than 420 g/l RFU. The average VOC of all 20,000 water based paint colors is approx. 250 g/l. use over water based paint.

2.3 Customer Satisfaction

Customer satisfaction is the most commonly used performance indicator used by managers to evaluate the extent to which the service firm meet customers' expectation (Gupta S., 2006). John F and Michael R. (2009) stated that “in the auto repair industry a company builds its client base one customer at a time and mostly through word of mouth marketing. With this in mind, the keys to success for F & R Auto Repair are High-quality work, Constant contact with clients so as to keep them informed about the state of their automobile and the repair job progress, Knowledgeable mechanics that are friendly, customer oriented, and will take the time to explain to customer the intricate nature of our business and our work.”

2.4 Customer decision making theory

Consumer decision making is often complicated and may involve a number of constructs. Several perspectives on consumer decision making have been considered in the literature. Some researchers have suggested that consumers are ‘value-driven’ (e.g., Zeithaml, 1988; Levy, 1999). A consumer’s perceived value may be seen as an expression of “an overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given” (Zeithaml, 1988, p. 14). Other researchers (e.g., Celsi & Olson, 1988; Petty & Cacioppo, 1983, 1986; Blackwell et al., 2001) have emphasized the role of involvement in explaining how likely consumers are to process e.g. cognitive information (Swinyard, 1993) and to engage in extensive evaluations of attributes and products. Low involved consumers may use simple decision rules in arriving at attitudinal judgments. For instance, according to ‘cue utilization theory’ (e.g., Steenkamp, 1989; Richardson et al., 1994) consumers may simply use one or more indicators (e.g. price) of the quality or the overall performance of a product. The behavior of high involved consumers may be analyzed and described on the basis of the information processing perspective. According to the information processing perspective (e.g., Ostergaard & Jantzen, 2000; Blackwell et al., 2001) the interaction between the consumer and stimuli in the environment is an ongoing cognitive process in which the consumer develops beliefs and attitudes towards the environment. The information processing perspective presupposes that the consumer, in order to avoid cognitive dissonance, seeks an equilibrium in which there is balance between the consumer’s attitudes and beliefs and the actual environment (refer to Ostergaard & Jantzen, 2000). In contrast to the information processing perspective, other researchers (e.g. Holbrook and Hirschman, 1982; Holbrook & Batra, 1987; Bagozzi, 1999) propose that consumer affections like emotional responses should be included in the explanation of consumer decision making. The consumer looks for 2 new experiences via consumption. In this connection, the primary purpose is not to evaluate relations between attitude, beliefs, and the environment, but to fulfill a desire and to obtain pleasure in life.

The various perspectives on consumer decision making differ on several important dimensions. The value-perspective emphasizes situations in which consumers make value trade-offs, such as price versus quality in purchasing a food product. The

construction of such trade-offs may, however, be difficult and may involve uncertainties. For example, the consumer does not always have a clear picture of the quality of a food product that is offered in a supermarket. This problem of uncertainty is not explicitly dealt with within the value perspective, which does not include suggestions on how consumers will reduce the risk that follows from not knowing the outcome (e.g., the quality of a food product) or the negative consequences (e.g., will a low quality food product harm my health?) of carrying out a certain decision. Cue utilization theory, on the other hand, suggests that consumers may try to reduce risk by using cues (e.g., price, brand name, advertising, color, etc.) as indicators of the quality of a product or service. Thus, the reliance of one or more cues is one risk reduction strategy. Based on an extensive literature review Dawar & Parker (1994) conclude that cues mostly serve as heuristics in assessing product quality when (among other factors) there is a need to reduce the perceived risk of purchase and when consumer involvement is low. From an information processing perspective a product can be conceived as an array of cues (Steenkamp, 1989), where cues can be regarded as ‘pieces of information’. When the consumer is highly involved in the decision making he or she can be expected to engage in a more extensive internal and/or external information search for the purpose of reducing the

Risk of making a ‘wrong’ choice. Thus, such a consumer will have a high degree of cognitive activity and will make strong efforts in conducting evaluations and comparisons of products reaching for a reasoned decision. As in the value perspective (in which a perceived poor quality can be ‘compensated’ by a low price) consumers can make ‘trade-offs’ between various attributes (compensatory decision making) or the consumer can decide that one or more attribute must be represented in the product on a certain level (non-compensatory decision making). However, from an emotional perspective consumers do not make cognitive (compensatory or non-compensatory) evaluations when considering purchasing a product. Emotions should not be regarded as the result of an evaluation procedure but as an effective response to consumers’ perceptions of stimuli in the environment (Bagozzi et al., 1999).

2.5 Related researches

Sathish (2013) states that “Determining the purchase decision-makers and influencer (both for business-to-business goods and services and consumer products);

Assessing and weighting the relative importance of the decision-makers (of considerable importance to suppliers of goods and services to business customers); Establishing decision-makers' perceptions of the main attributes of satisfaction; Weighting the relative importance of these attributes by purchase decision-maker; Scoring the performance of the supplying organization in respect of these weighted attributes; and Multiplying performance rating by weighted attribute ranking to arrive at an index. Specifically, customer satisfaction measures usually do a poor job in the following areas; Predicting the level and nature of customers' purchasing behaviors; Prioritizing satisfaction scores according to how important the respondent is to the company; Understanding customers' rising expectations customers of all suppliers; Identifying customers most risk of switching to a competitor; Providing a competitive context for customer attitudes and behaviors within the company's traditional definition of its industry and from non-traditional sources of competition, such as those enabled by the internet and digital convergence; Assessing the factors that produce deeper bonds and a greater market share; Understanding the company's progress in relation to the main drivers of the customer relationship; and Linking profitability, behaviors add attitudes at the level needed to manage customer behaviors, whether for individuals, customers clustered according to their behaviors, or market segments. Some companies use research methodologies and software to arrive at the key attributes that drive each customer relationship. Other firms prefer to explore relationships using focus groups with consumers grouped according to their behaviors rather than their demographics. Others conduct personal interviews with the purchase decision-makers and public-sector organizations.

Service quality of an organization is becoming an important competition factor in the business field (Veldhuisen, 2011). In service quality literature the first model to measure service quality was presented by Gronroos (1990). Gronroos stated that a service is 'an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees and /or systems of the service provider, which are provided as solutions to customer problems.'

Gronroos used a two-dimensional model to study the quality of service. The first dimension was 'technical-quality', by which the outcome of service performance was

meant. The second dimension was 'functional-quality', meaning subjective perceptions of how service is delivered. Functional quality reflects consumers' perceptions of their interactions with the service providers. The model of Gronroos compares the two dimensions of service performance with the expectations of customers. Gronroos' general conclusion was that each single customer has its own single perception of the quality of a service. A few years later, researchers Parasuraman et al (1988) defined service quality as: 'A global judgment, or attitude, relating to the superiority of the service' (Parasuraman, Zeithalm and Berry, 1988, p.16). Based on this conceptualization they proposed a model for measuring the quality of services, which is called the SERVQUAL model. SERVQUAL is an acronym for service quality. The framework of Parasuraman et al (1988) tries to diagnose service shortfalls and thereby opportunities for improvement can be derived. This model is relatively useful for this study, because one of the objectives for this study is to give BM advice to wholesalers.

After research in different kind of industries, the authors found five important predictors of the quality of a service: tangibles, empathy, reliability, assurance and responsiveness. Tangible refers to the appearance of the physical facilities, equipment, personnel and communication material within a service. Empathy refers to caring and individual attention of the service provider towards its customers. Reliability refers to the ability of the service provider to perform the promised service dependently and accurately. Assurance refers the trust in the knowledge and proficiency in the service provider. Responsiveness reflects the willingness to help a customer and provide a quick service (Parasuraman et al, 1988, p. 23).

An in-depth literature review pointed out that service quality, customer satisfaction and customer loyalty are related to each other. Service quality is positively related to customer satisfaction and to customer loyalty. Besides there is a positive relationship between customer satisfaction and customer loyalty. So literature suggest that customers satisfaction has a mediation role in the relationship between service quality and customer satisfaction (Cavana et al, 2007; Garland & Gendall, 2004; Henkel et al, 2006; Heskett et al, 1997; Kao, 2009; Lai, 2004; Naeem & Saif, 2009; Rauyruen et al, 2007; Yu & Dean, 2001; Ziethalm et al, 2008).

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Scope of the Research

This study is to investigate the level of Car garage customer satisfaction of the mobile telecoms services and explore the relationship between customer satisfaction and specific demographic variables. Previous studies on garage services suggested that garage service quality, pricing and customer care/support are important features of the garage services (Booz, Allen & Hamilton, 1995, Danaher & Rust, 1996; Bolton, 1998; Gerpott, 1998; Wilfert, 1999; Kim, 2000; Gerpott et al., 2001; Lee, Lee, & Freick, 2001). Hence, this study employs these variables in its investigation.

3.2 Population

The selection of interviewers are the family people and the garage's employees assisted in conducting the interviews. They include the recent graduates and the undergraduates, all males. No formal training was done apart from explaining briefly what the research is all about and the locations to collect the data. This was due to the fact that I was not physically available in the garage to conduct the training and communications were basically done on the phone with the author. These different locations of the author and interviewers made supervision impossible. No compensation was given to the interviewers. The data was collected for 3 months.

The selection of respondents are questionnaires were administered at the different locations in Bangkok Metropolitan Area. Since no list of customer was used, the residential locations were used as quota segment. These residential locations may relate to the level of income of the inhabitants and as well as to the level of use of the garage services. The residential locations are in Bangkok Metropolitan Area, the commercial center, in Bangkok.

The chosen locations is based firstly on my experience and my family car garage business has been located in this area for the long time of these areas and secondly, on the Bangkok Metropolitan Area is surrounded by several business area and has been choice of residence for top federal officers and diplomats. The residences in this

location are for federal palatals, diplomatic communities and rich individuals. Bangkok Metropolitan Area is the district and is the choice of residence for state palatals, corporate bodies, top state officers, civil officers, businessmen and averagely rich people. Bangkok is a place with a very small population in the province of SamutPrakan, Thailand which is located in the continent/region of Asia. Cities, towns and places near Bangkok include KhetPhraKhanong, BhraKhanong, AmphoePhraKhanong and Phrakanhong. The closest major cities include Bangkok, SamutPrakan, Nonthaburi and Chon Buri.

3.3 Sample Selection

A total number of 400 people were interviewed for this study. This number is in accordance regards the views of Dillman (2000) and Hill et al. (2003) states the points of data collection were changed within the chosen central locations to minimize bias. These 400 respondents were administered the questionnaires in this location (Yamane, 1967)

3.4 Research Method

A questionnaire was the instrument used in this study to collect data. The questionnaire employed the typical form of fixed-response alternative questions that require the respondent to select from a predetermined set of answers to every question. According to Malhotra and Birks (2003: 224), this survey approach is the most common method of primary data collection in marketing research and the advantages are simple administration and data consistency.

The survey questionnaires were administered on the telephone, email, fax or face to face interview (mode of data collection): the questionnaires were filled out mostly by the people themselves or through the interviewers for few people who could not understand English. Malhotra and Birks (2003) showed in their evaluation of comparative survey techniques that street interviews have high flexibility of data collection, high degree of diversity of questions due to interaction and high response rate, moderate sample control, moderate quantity of data, moderate to high great potential to probe respondents, moderate to high great potential to build rapport, moderate to high speed and cost of data collection. These qualities were responsible for the choice of this survey technique for this study.

The questionnaires employed the Likert non-comparative scaling technique. It is a widely used rating scale which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements or questions (Albaum, 1997). This rating scale is easy to construct and administer and respondents readily understand how to use the scale (Malhotra and Birks, 2003: 305).

The Likert scale used in this study is odd numbered (as proposed by Spagna, 1984); balanced (the number of favorable and unfavorable categories is equal). This view is proposed by Watson (1992), who reported the balanced state helps to obtain an objective data; has non-forced choices “no opinion” to improve the accuracy of the data (as proposed by Hasnich, 1992); and 5-scaled categories which conforms to the traditional guidelines reported by Aaker (1997). He proposed that the categories scale should be between 5 and 9.

The questionnaire contains four sections; A, B, C and D. This questionnaire is used to get data from target group of respondents. The questionnaire is composed of 4 sections as follows by Demographic factor, Satisfaction of the garage service, The respondent's attitude Customer Decision making of garage service and The respondent's attitude paint technology of garage service.

Section A: Demographic factors

Section A has questions on demography factors (Age, Gender, Education level, Occupation, Monthly income, Frequency garage visited and Car brand) There are questions to measure the respondents' behavior in regards to garage business.

Part B: Satisfaction of the garage service

The section B includes 4P; Place, Product, Promotion and Price. Questions on garage for example; rating of service quality (availability and after sales service), customer care service (promptness, attitude and competence), and the rating of the service performance. In all, the questionnaire contains eight questions and the answers are “very satisfied”, “satisfied”, “dissatisfied”, “very dissatisfied” and “no opinion”. The questionnaire was constructed entirely in both Thai and English this regards to the local respondents convenient and communication proved. Please see table 3.1 attached in the appendix content for the operation definition for the content of the questionnaires and appendix 1 for a copy of the questionnaire.

Table 3.1 Operational definitions of the content of the questionnaire

Features/Contents	Operational definition
Availability	Call quality as perceived by customers and this include: <ul style="list-style-type: none"> - Call clarity when calling and receiving - Coverage
Billing	The cost of refilling credit (pricing): <ul style="list-style-type: none"> - Variety of refill card - Affordability of the refill card - Freedom of choosing refill cards - Speed of refilling
Validity period	The period in which you can make calls and or receive calls after every refill
Customer Care	Customer support and complaint management systems: <ul style="list-style-type: none"> - Promptness (ability to get attendant quickly) - Attitude (response of the attendant) - Competence (ability to provide a solution)
Customer satisfaction	an experience-based assessment made by the customer of how far his own expectations about the individual characteristics or the overall functionality of the services obtained from the provider have been fulfilled

Part C: The respondent's attitude Customer Decision making of garage service

The questionnaire used rating scale question which is measured by applying 5 scales level as below table.

Table 3.2 Selected Category Scale 5 level

Score	Level of Affection
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Part D: The respondent's attitude paint technology of garage service

The respondents asked about their satisfaction and opinion with 2 paint based technology aspects formatted in order to compare and rate the satisfaction of customer visit.

3.5 Research Instrument

The Data Analysis program will be used to analyze the data collected. The descriptive statistics (frequencies statistics) will be applied to assess the level of customer satisfaction while the relationship between the garage services attributes, specific demographic variables and customer satisfaction will be analyzed with the linear regression model.

According to the SPSS package, the linear regression is used to model the value of a dependent scale variable based on its linear relationship to one or more predictors. The Model summary table reports the strength of the relationship between the model and the dependent variable. "R" value indicates the strength of relationship with larger values indicating stronger relationship and "R²" is the proportion of the variation in the dependent variable explained by the regression. Both R and R² the regression procedure values range from 0 to 1.

According to Hair et al. (2005) independent variables can be classified as ordinal or nominal variable. Ordinal variable allows distinction and the distinction can quantify the differences between the variables. Example includes age. In this study to perform the data analysis, the age variable will be ranked from 1 to 5 with the least age group 16-25 as 1 and the highest group 66-75 ranked 5.

Nominal variable allows distinction but the distinction cannot quantify the differences between the variables. Examples include age, gender, education level, occupation and monthly income, etc. To be able to analyze this variable, dummy variable will be used. Dummy variable is variable representing nominal data encoded numerically, using the 0 and 1 values. For this study, gender variable will have 1 dummy variable: male is 1 and female is 0. Location will have 4 dummy variables and employment having 5 dummy variables.

The answers to questions rated "very satisfied", "satisfied", "dissatisfied", "and very dissatisfied" and "no opinion" will be valued from 1 to 5 respectively.

CHAPTER 4

RESEARCH FINDINGS

This chapter described the finding of survey conducted in the study of The Factors Affecting Customer Decision Making of Car Spray between Traditional Based Paint and Water Based Paint in Bangkok Metropolitan Area The data analysis focuses on evaluation of the demographic data and The respondent's perception and attitude of garage service toward Consumer decision making Data were collected from completed 400 questionnaires of the valid respondents. The analysis session were divided into seven main sections as follows:

Demographic of respondents

This section contain of seven questions about information of the Employee demographic of Gender, Age, Education, Occupation, Income, garage visit frequency and car brand. This demographic information displayed as identification may affect to the opinion and perceived experience to the study approach. This would help researcher to explain the relation of the results.

The researcher describes the exposed data in the form of table and diagram by constructing data into 7 parts as:

Part 1: Analysis of demographic data, General information of the respondents by Gender, Age, Education, Occupation, Income, garage visit frequency and car brand.

Part 2: Analysis of the satisfaction level of respondent toward the independent factor of 4P by Place; garage location and facility, Product; service and technology, Promotion; attractive and reliable, Price; proved and collaborative of garage.

Part 3: Analysis of The respondent's attitude Customer decision making at garage service.

Part 4: Analysis of The respondent's attitude of paint based technology of "solvent versus water based" at garage service.

Part 5: Analysis testing of the independent factors that related to Customer decision making at garage service.

Part 6: Analysis testing of the independent factors that related to Customer decision making toward of the paint based technology of “solvent versus water based” at garage service.

Part 7: Data confirmation for hypothesis testing

Part 1: Analysis of demographic data, General information of the respondents by Gender, Age, Education, Occupation, Income, garage visit frequency and car brand.

Analysis of aspect respondent’s demographic data by percentage, frequency, mean, and standard deviation analysis method.

Table 4.1 Represent frequency and percentage of respondents classified by Gender

Gender		Frequency	Percent
Valid	Male	171	41.6
	Female	240	58.4
	Total	411	100

Results of this table state that 41.6 percent of the respondents are male and 58.4 percent are female. Thus the majority of respondents are female.

Table 4.2 Represent frequency and percentage of respondents classified by Age

Age Range		Frequency	Percent
Valid	Below 30 years	143	34.8
	31-40 years	110	26.8
	41-60 years	102	24.8
	Over than 60 years	56	13.6
	Total	411	100

Results of this table state that 34.8 percent of the respondents are in the age below 30 years old then 26.8 and 24.8 percent for 31-40 and 41-60 years old respectively, follow by 13.6 percent in years over than 60 years old.

Table 4.3 Represent frequency and percentage of respondents classified by education

Education Level		Frequency	Percent
Valid	Primary School	26	6.3
	High School	113	27.5
	Bachelor Degree	220	53.5
	Above Master Degree	50	12.2
	Other Certification	2	0.5
Total		411	100

Results of this table state that the respondents are education level as bachelor degree for 53.5 percent and the second is high school for 27.5 percent. Follows by above master degree at 12.2 percent, primary school and other certification is 6.3 and 0.5 percent respectively.

Table 4.4 Represent frequency and percentage of respondents classified by rate of Occupation

Career		Frequency	Percent
Valid	Business owner	58	14.1
	Government/state enterprise	94	22.9
	Private company	120	29.2
	Student	78	19
	Others	61	14.8
Total		411	100

Results of this table state that the respondents are mainly work in private company for 29.2 percent and the second is Government/State enterprise officer for 22.9 percent. Follows by Student is 19 percent, other occupation, Self-employed and business owner is 14.8 and 14.1 percent respectively.

Table 4.5 Represent frequency and percentage of respondents classified by rate of Salary

Income per month		Frequency	Percent
Valid	<10,000 baht	62	15.1
	10,000-30,000 baht	264	64.2
	30,000-50,000 baht	64	15.6
	>50,000 baht	21	5.1
Total		411	100

Results of this table state that 64.2 percent of the mostly respondents have a monthly income 10,000-30,000 Baht. And 15 percent have monthly income below than

10,000 and 30,000-50,000 Baht. Then 5.1 percent have monthly income more than 50,000 Baht.

Table 4.6 Represent frequency of garage visit of respondent

often visit the garage	Frequency	Percent
Valid		
1st time	74	18
2nd time	259	63
3rd time	63	15.3
More than 3 times	15	3.6
Total	411	100

Results of this table state that the respondents are mostly visit to garage as 2nd time in 259 respondents at 63 percent. The other respondent visit in 1st time in 74 respondents at 18 percent. Then visit about 3rd time 63 respondent at 15.3 percent and visit more than 3 times about 15 respondents at 3.6 percent.

Table 4.7 Represent frequency and percentage of respondent's car brand

Car Brand	Frequency	Percent
Valid		
Honda	156	38
Toyota	111	27
Nissan	33	8
Chevrolet	30	7.3
Ford	28	6.8
Benz	5	1.2
BMW	4	1
Mitsubishi	21	5.1
Mazda	19	4.6
Others	4	1
Total	411	100

Results of this table state that most of consumer 156 respondents has Honda at 38 percent for their vehicle, follow by 111 Toyota user at 27 percent. Then Nissan, Chevrolet, Ford, Mitsubishi, Mazda has user at 33, 30, 28, 21 and 19 at 8, 7.3, 6.8, 5.1 and 4.6 percent accordingly. While Benz, BMW and other brand is 5, 4 and 4 user for 1.2 and 1 percent.

Part 2: Analysis of the satisfaction level of respondent toward the independent factor of 4P by Place; garage location and facility, Product; service and technology, Promotion; attractive and reliable, Price; proved and collaborative of garage.

Analysis of the satisfaction level of respondent toward the independent factor of respondent's data using percentage, frequency, mean, and standard deviation of analysis method.

Table 4.8 Analysis of the satisfaction level of respondent toward the independent factor

Statistics	Mean	SD.	Satisfaction level
8Infrastructure and garage modernized	3.99	0.96	Satisfied
9clean and lounge for customer	3.75	1.03	Satisfied
10Tech and premium product	4.49	0.81	Satisfied
11Service and staff hospitality	4.21	0.93	Satisfied
12Promotion and commitment	4.42	0.78	Satisfied
13Added values and partnership	4.62	0.69	Satisfied
14Price and detailed	4.84	0.39	Satisfied
15 Guarantee and collaboration to partner	4.65	0.70	Satisfied
Total Mean	4.37	0.79	Satisfied

According to the Table 4.8 of service satisfaction level at garage, overall respondents 411 are result about all 8 satisfaction factors total mean is 4.37 and standard deviation is 0.79, the minimum satisfaction level at garage is location and infrastructure at mean score about 3.99 and SD equal to 0.96. The maximum score of satisfaction for price and proved of detailed is mean 4.84 and SD equal to 0.39.

Part 3: Analysis of The respondent's attitude Customer decision making at garage service.

Table 4.9 The respondent's attitude Customer decision making of garage service

Statistics	Mean	SD.	Agree level
Place location, modernized, STD	4.87	0.36	Agree
Place function and customer lounge	4.85	0.38	Agree
Product premium, technology, original	4.86	0.37	Agree
Product Environment mgmt.	4.23	0.89	Agree
Product service commitment, reliable	4.86	0.38	Agree
Promotion trend, attractive in period	4.86	0.38	Agree
Promotion clean and clear offered	4.82	0.42	Agree
Price right, detailed, proved	4.84	0.39	Agree
Price collaboration and support to all holder partner	4.87	0.35	Agree
Total Mean	4.75	0.51	Agree

According to the Table 4.9 of The respondent's attitude Customer decision making of garage service, overall respondents 411 are result about all 12 attitude

Customer decision making factors following as total mean is 4.75 and standard deviation is 0.51, the minimum factors level at garage is Product Environment management at mean score about 4.23 and SD equal to 0.89. The maximum score factor are Place location, modernized, STD and Price collaboration and support to all holder partner are mean 4.87 and SD equal to 0.36 and 0.35 accordingly.

Part 4: Analysis of The respondent's attitude of paint based technology of "solvent versus water based" at garage service.

Table 4.10 The respondent's attitude of paint based technology of "solvent versus Water based" at garage service

Statistics	Mean	SD.	Agree level
25Att. Paint "Solvent based"	4.64	0.70	Agree
26Att. Paint "Water based"	4.56	0.72	Agree
27Att. Impulse buying service for "water based" used garage	4.52	0.73	Agree
Total Mean	4.57	0.72	Agree

According to the Table 4.10 of The respondent's attitude of paint based technology of "solvent versus water based" at garage service, overall respondents 411 are result about all 3 factors total mean is 4.57 and standard deviation is 0.72, the minimum factors level of paint is Paint "Solvent based" at mean score about 4.64 and SD equal to 0.70. The maximum score factor is Paint "Water based" at mean 4.56 and SD equal to 0.72.

Part 5: Analysis testing of the independent factors that related to Customer decision making at garage service.

T-Test and one-way A statistical analysis calculation was applied to analyze. Whether the demographic and independent aspect that related to Customer decision making at garage service. Regards the result from 411 respondents, the result of T-Test analysis will show in following tables:

Analysis Testing

Compare Mean analysis was applied to test in this research study in order to investigate the influencing of each given. The table below represents the result of Levene's test and T-test for Gender and then One-way A for the all independent factors toward Customer decision making at garage service.

Table 4.11 Analysis of Gender Correlation

Group Statistics		Gender	Mean	SD.	F	Sig.	t	2-tailed
Place location, modernized, STD		Male	4.860	0.365	1.433	0.232	-0.655	0.513
		Female	4.883	0.359			-0.653	0.514
Place function and customer lounge		Male	4.830	0.406	3.405	0.066	-0.947	0.344
		Female	4.867	0.364			-0.930	0.353
Product premium, technology, original		Male	4.848	0.376	1.767	0.184	-0.728	0.467
		Female	4.875	0.367			-0.726	0.469
Product Environment mgmt.		Male	4.468	0.754	4.196	0.041	4.702	0.001
		Female	4.058	0.944			4.881	0.001
Product service commitment, reliable		Male	4.854	0.371	0.142	0.706	-0.231	0.817
		Female	4.863	0.380			-0.232	0.817
Promotion trend, attractive in period		Male	4.854	0.371	0.142	0.706	-0.231	0.817
		Female	4.863	0.380			-0.232	0.817
Promotion clean and clear offered		Male	4.778	0.457	9.292	0.002	-1.611	0.108
		Female	4.846	0.395			-1.572	0.117
Price right, detailed, proved		Male	4.830	0.392	0.449	0.503	-0.392	0.696
		Female	4.846	0.395			-0.392	0.695
Price collaboration and support to all holder partner		Male	4.848	0.376	5.580	0.019	-1.234	0.218
		Female	4.892	0.337			-1.212	0.226
Impulse buying service for "water based" used garage		Male	4.614	0.635	10.371	0.001	2.208	0.028
		Female	4.454	0.780			2.285	0.023
Total			4.762	0.460	3.67	0.24	0.105	0.402

*Significant at or below 0.25 level

According to the table 4.11 the statistic result of Independent sample t-test found that the Customer decision making at garage service of respondent's opinion (total) has been significantly in the different gender (significant level 0.25) by equal to 0.246. And when consider sig (2-tailed) each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.514, 0.353, 0.469, 0.001, 0.817, 0.817, 0.117, 0.696, 0.226 and 0.023 accordingly.

Table 4.12 A analysis of Customer decision making at garage service by Age

A		Sum of Squares	df	Mean Square	F	Sig.
Att. Place location, modernized, STD	Between Groups	0.685	3	0.228	1.763	0.154
	Within Groups	52.736	407	0.13		
	Total	53.421	410			
Att. Place function and customer lounge	Between Groups	0.674	3	0.225	1.543	0.203
	Within Groups	59.272	407	0.146		
	Total	59.946	410			
Att. Product premium, technology, original	Between Groups	0.236	3	0.079	0.571	0.634
	Within Groups	56.133	407	0.138		
	Total	56.37	410			
Att. Product Environment mgmt.	Between Groups	3.311	3	1.104	1.39	0.245
	Within Groups	323.19	407	0.794		
	Total	326.501	410			
Att. Product service commitment, reliable	Between Groups	0.447	3	0.149	1.058	0.367
	Within Groups	57.368	407	0.141		
	Total	57.815	410			
Att. Promotion trend, attractive in period	Between Groups	0.447	3	0.149	1.058	0.367
	Within Groups	57.368	407	0.141		
	Total	57.815	410			
Att. Promotion clean and clear offered	Between Groups	0.019	3	0.006	0.034	0.991
	Within Groups	73.295	407	0.18		
	Total	73.314	410			
Att. Price right, detailed, proved	Between Groups	0.237	3	0.079	0.51	0.676
	Within Groups	63.164	407	0.155		
	Total	63.401	410			
Att. Price collaboration and support to all holder partner	Between Groups	0.159	3	0.053	0.422	0.737
	Within Groups	51.261	407	0.126		
	Total	51.421	410			

Table 4.12 A analysis of Customer decision making at garage service by Age (Cont.)

Att. Impulse buying service for "water based" used garage	Between Groups	4.63	3	1.543	2.964	0.032
	Within Groups	211.944	407	0.521		
	Total	216.574	410			
Total					1.131	0.44

*Significant at 0.05 or below 0.05 level or below 0.05 level

According to the table 4.12 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the different age by 0.44 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.154, 0.203, 0.634, 0.245, 0.367, 0.367, 0.991, 0.676, 0.737 and 0.032 accordingly.

Table 4.13 A analysis of Customer decision making at garage service by Education

A		Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups	0.618	4	0.155	1.18	0.315
	Within Groups	52.802	406	0.13	9	
	Total	53.421	410			
17Att. Place function and customer lounge	Between Groups	0.714	4	0.178	1.22	0.3
	Within Groups	59.233	406	0.146	3	
	Total	59.946	410			
18Att. Product premium, technology, original	Between Groups	0.246	4	0.062	0.446	0.776
	Within Groups	56.123	406	0.138		
	Total	56.37	410			

Table 4.13 A analysis of Customer decision making at garage service by

Education (Cont.)						
19Att. Product Environment mgmt.	Between	6.466	4	1.616	2.051	0.087
	Groups					
	Within	320.035	406	0.788		
	Groups					
20Att. Product service commitment, reliable	Total	326.501	410			
	Between	1.56	4	0.39	2.815	0.025
	Groups					
	Within	56.255	406	0.139		
21Att. Promotion trend, attractive in period	Groups					
	Total	57.815	410			
	Between	1.56	4	0.39	2.815	0.025
	Groups					
22Att. Promotion clean and clear offered	Within	56.255	406	0.139		
	Groups					
	Total	57.815	410			
	Between	0.318	4	0.079	0.442	0.778
23Att. Price right, detailed, proved	Groups					
	Within	72.996	406	0.18		
	Groups					
	Total	73.314	410			
24Att. Price collaboration and support to all holder partner	Between	0.577	4	0.144	0.932	0.445
	Groups					
	Within	62.825	406	0.155		
	Groups					
27Att. Impulse buying service for "water based" used garage	Total	63.401	410			
	Between	0.298	4	0.075	0.592	0.668
	Groups					
	Within	51.123	406	0.126		
	Groups					
	Total	51.421	410			
	Between	8.609	4	2.152	4.202	0.002
	Groups					
	Within	207.965	406	0.512		
	Groups					
	Total	216.574	410			
<hr/>						
Total				1.671	0.340	

*Significant at 0.05 or below 0.05 level

According to the table 4.13 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the different education by 0.34 (significant level 0.05) And then

when consider each topic the researcher found that “Place location, “Product Environment mgmt.”, “Product service commitment, reliable”, “Promotion trend, attractive period”, “Promotion clean clear offered”, “Price right, detailed, proved”, “Price collaboration support all holder partner”, “Impulse buying service water based used garage” by 0.315, 0.3, 0.776, 0.087, 0.025, 0.025, 0.778, 0.445, 0.668 and 0.002 accordingly.

Table 4.14 A analysis of Customer decision making at garage service by

Occupation							
A			Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups		0.279	4	0.07	0.533	0.711
	Within Groups		53.142	406	0.131		
	Total		53.421	410			
17Att. Place function and customer lounge	Between Groups		0.548	4	0.137	0.937	0.442
	Within Groups		59.398	406	0.146		
	Total		59.946	410			
18Att. Product premium, technology, original	Between Groups		1.117	4	0.279	2.053	0.086
	Within Groups		55.252	406	0.136		
	Total		56.37	410			
19Att. Product Environment mgmt.	Between Groups		71.166	4	17.792	28.29	0.00
	Within Groups		255.335	406	0.629		
	Total		326.501	410			
20Att. Product service commitment, reliable	Between Groups		0.04	4	0.01	0.07	0.991
	Within Groups		57.775	406	0.142		
	Total		57.815	410			
21Att. Promotion trend, attractive in period	Between Groups		0.04	4	0.01	0.07	0.991
	Within Groups		57.775	406	0.142		
	Total		57.815	410			
22Att. Promotion clean and clear offered	Between Groups		0.862	4	0.215	1.207	0.307
	Within Groups		72.452	406	0.178		

Table 4.14 A analysis of Customer decision making at garage service by Occupation (Cont.)

23Att. Price right, detailed, proved	Between Groups	0.631	4	0.158	1.021	0.396
	Within Groups	62.77	406	0.155		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	0.893	4	0.223	1.794	0.129
	Within Groups	50.528	406	0.124		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	12.585	4	3.146	6.262	0.00
	Within Groups	203.989	406	0.502		
	Total	216.574	410			
Total					4.2237	0.4053

*Significant at 0.05 or below 0.05 level

According to the table 4.14 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the different occupation by 0.40 (significant level 0.05) And then when consider each topic the researcher found that "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.711, 0.442, 0.086, 0.00, 0.991, 0.991, 0.307, 0.396, 0.129 and 0.00 accordingly.

Table 4.15 A analysis of Customer decision making at garage service by Income

Income		Sum of Squares	df	Mean Square	F	Sig.
A-Income						
16Att. Place location, modernized, STD	Between Groups	0.442	3	0.147	1.131	0.336
	Within Groups	52.979	407	0.13		
	Total	53.421	410			

Table 4.15 A analysis of Customer decision making at garage service by
Income (Cont.)

17Att. Place function and customer lounge	Between Groups	1.43	3	0.477	3.316	0.02
	Within Groups	58.516	407	0.144		
	Total	59.946	410			
18Att. Product premium, technology, original	Between Groups	1.551	3	0.517	3.839	0.01
	Within Groups	54.819	407	0.135		
	Total	56.37	410			
19Att. Product Environment mgmt.	Between Groups	45.164	3	15.055	21.779	0.00
	Within Groups	281.338	407	0.691		
	Total	326.501	410			
20Att. Product service commitment, reliable	Between Groups	0.428	3	0.143	1.013	0.387
	Within Groups	57.387	407	0.141		
	Total	57.815	410			
21Att. Promotion trend, attractive in period	Between Groups	0.428	3	0.143	1.013	0.387
	Within Groups	57.387	407	0.141		
	Total	57.815	410			
22Att. Promotion clean and clear offered	Between Groups	1.246	3	0.415	2.346	0.072
	Within Groups	72.067	407	0.177		
	Total	73.314	410			
23Att. Price right, detailed, proved	Between Groups	1.452	3	0.484	3.18	0.024
	Within Groups	61.949	407	0.152		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	1.185	3	0.395	3.201	0.023
	Within Groups	50.236	407	0.123		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	6.147	3	2.049	3.963	0.008
	Within Groups	210.427	407	0.517		
	Total	216.574	410			
Total					4.4781	0.1267

*Significant at 0.05 or below 0.05 level

According to the table 17 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the different income by 0.126 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.336, 0.02, 0.001, 0.00, 0.387, 0.387, 0.072, 0.024, 0.023 and 0.08 accordingly.

Table 4.16 A analysis of Customer decision making at garage service by car

Brand						
A-Car brand		Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups	2.351	9	0.261	2.051	0.033
	Within Groups	51.07	401	0.127		
	Total	53.421	410			
17Att. Place function and customer lounge	Between Groups	1.972	9	0.219	1.515	0.14
	Within Groups	57.975	401	0.145		
	Total	59.946	410			
18Att. Product premium, technology, original	Between Groups	3.428	9	0.381	2.885	0.003
	Within Groups	52.942	401	0.132		
	Total	56.37	410			
19Att. Product Environment mgmt.	Between Groups	7.735	9	0.859	1.081	0.376
	Total	326.5	410			
20Att. Product service commitment, reliable	Between Groups	54.592	9	0.358	2.63	0.006
	Within Groups	57.815	401	0.136		
	Total	3.223	410			
21Att. Promotion trend, attractive in period	Between Groups	54.592	9	0.358	2.63	0.006
	Within Groups	57.815	401	0.136		
22Att. Prom clean clear offered	Total	3.569	410			

Table 4.16 A analysis of Customer decision making at garage service by

car brand (Cont.)						
22Att. Promotion clean and clear offered	Between Groups	69.745	9	0.397	2.28	0.017
	Within Groups	73.314	401	0.174		
23Att. Price right, detailed, proved	Total	2.458	410			
23Att. Price right, detailed, proved	Between Groups	60.943	9	0.273	1.797	0.067
	Within Groups	63.401	401	0.152		
24Att. Price collaboration and support to all holder partner	Total	2.923	410			
24Att. Price collaboration and support to all holder partner	Between Groups	48.498	9	0.325	2.685	0.005
	Within Groups	51.421	401	0.121		
	Total	6.661	410			
Total					2.0968	0.0833

*Significant at 0.05 or below 0.05 level

According to the table 4.16 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the different car brand by 0.08 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.033, 0.014, 0.003, 0.376, 0.006, 0.006, 0.017, 0.067, 0.005 and 0.18 accordingly.

Table 4.17 A analysis of Customer decision making at garage service by

garage visited frequency						
A-Often visit		Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups	0.425	3	0.142	1.089	0.353
	Within Groups	52.995	407	0.13		
	Total	53.421	410			

Table 4.17 A analysis of Customer decision making at garage service by
garage visited frequency (Cont.)

17Att. Place function and customer lounge	Between Groups	1.909	3	0.636	4.462	0.004
	Within Groups	58.038	407	0.143		
	Total	59.946	410			
18Att. Product premium, technology, original	Between Groups	1.725	3	0.575	4.284	0.005
	Within Groups	54.644	407	0.134		
	Total	56.37	410			
19Att. Product Environment mgmt.	Between Groups	34.453	3	11.484	16.00	0.000
	Within Groups	292.048	407	0.718	5	
	Total	326.501	410			
20Att. Product service commitment, reliable	Between Groups	0.397	3	0.132	0.938	0.422
	Within Groups	57.418	407	0.141		
	Total	57.815	410			
21Att. Promotion trend, attractive in period	Between Groups	0.397	3	0.132	0.938	0.422
	Within Groups	57.418	407	0.141		
	Total	57.815	410			
22Att. Promotion clean and clear offered	Between Groups	1.661	3	0.554	3.145	0.025
	Within Groups	71.653	407	0.176		
	Total	73.314	410			
23Att. Price right, detailed, proved	Between Groups	1.394	3	0.465	3.05	0.029
	Within Groups	62.008	407	0.152		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	1.215	3	0.405	3.284	0.021
	Within Groups	50.206	407	0.123		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	3.381	3	1.127	2.151	0.093
	Within Groups	213.193	407	0.524		
	Total	216.574	410			
Total					3.935	0.1374

*Significant at 0.05 or below 0.05 level

According to the table 4.17 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the different garage visited frequency by 0.137 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.353, 0.004, 0.005, 0.00, 0.422, 0.422, 0.025, 0.029, 0.021 and 0.093 accordingly.

Table 4.18 A analysis of Customer decision making at garage service by place factor

A-Place		Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups	0.245	8	0.031	0.231	0.985
	Within Groups	53.176	402	0.132		
	Total	53.421	410			
17Att. Place function and customer lounge	Between Groups	1.286	8	0.161	1.102	0.361
	Within Groups	58.661	402	0.146		
	Total	59.946	410			
18Att. Product premium, technology, original	Between Groups	1.109	8	0.139	1.008	0.429
	Within Groups	55.261	402	0.137		
	Total	56.37	410			
19Att. Product Environment mgmt.	Between Groups	120.316	8	15.039	29.323	0.000
	Within Groups	206.185	402	0.513		
	Total	326.501	410			
20Att. Product service commitment, reliable	Between Groups	0.532	8	0.067	0.467	0.879
	Within Groups	57.283	402	0.142		
	Total	57.815	410			
21Att. Promotion trend, attractive in period	Between Groups	0.532	8	0.067	0.467	0.879
	Within Groups	57.283	402	0.142		
	Total	57.815	410			

Table 4.18 A analysis of Customer decision making at garage service by place factor (Cont.)

22Att. Promotion clean and clear offered	Between Groups	0.687	8	0.086	0.475	0.874
	Within Groups	72.627	402	0.181		
	Total	73.314	410			
23Att. Price right, detailed, proved	Between Groups	1.27	8	0.159	1.027	0.415
	Within Groups	62.131	402	0.155		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	0.83	8	0.104	0.824	0.582
	Within Groups	50.591	402	0.126		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	17.793	8	2.224	4.498	0.000
	Within Groups	198.782	402	0.494		
	Total	216.574	410			
Total					3.942	0.540

*Significant at 0.05 or below 0.05 level

According to the table 4.18 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has not been significantly in the place factor by 0.540 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.985, 0.361, 0.429, 0.00, 0.879, 0.879, 0.874, 0.415, 0.582 and 0.00 accordingly.

Table 4.19 A analysis of Customer decision making at garage service by product factor

A-Product		Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups	2.854	5	0.571	4.572	0.000
	Within Groups	50.566	405	0.125		
	Total	53.421	410			

Table 4.19 A analysis of Customer decision making at garage service by product factor (Cont.)

17Att. Place function and customer lounge	Between Groups	0.994	5	0.199	1.365	0.236
	Within Groups	58.953	405	0.146		
	Total	59.946	410			
18Att. Product premium, technology, original	Between Groups	3.69	5	0.738	5.674	0.000
	Within Groups	52.68	405	0.13		
	Total	56.37	410			
19Att. Product Environment mgmt.	Between Groups	241.354	5	48.271	229.599	0.000
	Within Groups	85.147	405	0.21		
	Total	326.501	410			
20Att. Product service commitment, reliable	Between Groups	2.163	5	0.433	3.148	0.008
	Within Groups	55.652	405	0.137		
	Total	57.815	410			
21Att. Promotion trend, attractive in period	Between Groups	2.163	5	0.433	3.148	0.008
	Within Groups	55.652	405	0.137		
	Total	57.815	410			
22Att. Promotion clean and clear offered	Between Groups	4.602	5	0.92	5.425	0.000
	Within Groups	68.712	405	0.17		
	Total	73.314	410			
23Att. Price right, detailed, proved	Between Groups	3.496	5	0.699	4.727	0.000
	Within Groups	59.905	405	0.148		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	2.996	5	0.599	5.011	0.000
	Within Groups	48.425	405	0.12		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	79.09	5	15.818	46.596	0.000
	Within Groups	137.484	405	0.339		
	Total	216.574	410			
Total					30.927	0.025

*Significant at 0.05 or below 0.05 level

According to the table 4.19 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has been significantly in the product factor by 0.025 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD",

“Place function and customer lounge”, “Product premium, technology, original”, “Product Environment mgmt.”, “Product service commitment, reliable”, “Promotion trend, attractive in period”, “Promotion clean and clear offered”, “Price right, detailed, proved”, “Price collaboration and support to all holder partner”, “Impulse buying service for "water based" used garage” by 0.00, 0.236, 0.00, 0.00, 0.008, 0.008, 0.00, 0.00, 0.00 and 0.00 accordingly.

Table 4.20 A analysis of Customer decision making at garage service by

	promotion factor						
A-Promotion		Sum of Squares	df	Mean Square	F	Sig.	
16Att. Place location, modernized, STD	Between Groups	6.312	5	1.262	10.853	0.000	
	Within Groups	47.109	405	0.116			
	Total	53.421	410				
17Att. Place function and customer lounge	Between Groups	3.375	5	0.675	4.832	0.000	
	Within Groups	56.572	405	0.14			
	Total	59.946	410				
18Att. Product premium, technology, original	Between Groups	10.883	5	2.177	19.379	0.000	
	Within Groups	45.487	405	0.112			
	Total	56.37	410				
19Att. Product Environment mgmt.	Between Groups	120.453	5	24.091	47.352	0.000	
	Within Groups	206.048	405	0.509			
	Total	326.501	410				
20Att. Product service commitment, reliable	Between Groups	4.279	5	0.856	6.474	0.000	
	Within Groups	53.536	405	0.132			
	Total	57.815	410				
21Att. Promotion trend, attractive in period	Between Groups	4.279	5	0.856	6.474	0.000	
	Within Groups	53.536	405	0.132			
	Total	57.815	410				
22Att. Promotion clean and clear offered	Between Groups	14.368	5	2.874	19.744	0.000	
	Within Groups	58.946	405	0.146			
	Total	73.314	410				

Table 4.20 A analysis of Customer decision making at garage service by promotion factor (Cont.)

23Att. Price right, detailed, proved	Between Groups	10.881	5	2.176	16.781	0.000
	Within Groups	52.521	405	0.13		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	8.945	5	1.789	17.057	0.000
	Within Groups	42.476	405	0.105		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	144.056	5	28.811	160.906	0.000
	Within Groups	72.518	405	0.179		
	Total	216.574	410			
Total					30.985	0.000

*Significant at 0.05 or below 0.05 level

According to the table 4.20 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has been significantly in the promotion factor by 0.00 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend, attractive in period", "Promotion clean and clear offered", "Price right, detailed, proved", "Price collaboration and support to all holder partner", "Impulse buying service for "water based" used garage" by 0.00 accordingly.

Table 4.21 A analysis of Customer decision making at garage service by price factor

A-Price		Sum of Squares	df	Mean Square	F	Sig.
16Att. Place location, modernized, STD	Between Groups	7.581	4	1.895	16.786	0.000
	Within Groups	45.84	406	0.113		
	Total	53.421	410			
17Att. Place function and customer lounge	Between Groups	12.852	4	3.213	27.700	0.000
	Within Groups	47.094	406	0.116		
	Total	59.946	410			

Table 4.21 A analysis of Customer decision making at garage service by price factor (Cont.)

18Att. Product premium, technology, original	Between Groups	19.311	4	4.828	52.893	0.000
	Within Groups	37.058	406	0.091		
	Total	56.37	410			
19Att. Product Environment mgmt.	Between Groups	80.334	4	20.084	33.124	0.000
	Within Groups	246.167	406	0.606		
	Total	326.501	410			
20Att. Product service commitment, reliable	Between Groups	5.389	4	1.347	10.433	0.000
	Within Groups	52.426	406	0.129		
	Total	57.815	410			
21Att. Promotion trend, attractive in period	Between Groups	5.389	4	1.347	10.433	0.000
	Within Groups	52.426	406	0.129		
	Total	57.815	410			
22Att. Promotion clean and clear offered	Between Groups	22.11	4	5.528	43.828	0.000
	Within Groups	51.204	406	0.126		
	Total	73.314	410			
23Att. Price right, detailed, proved	Between Groups	19.064	4	4.766	43.641	0.000
	Within Groups	44.338	406	0.109		
	Total	63.401	410			
24Att. Price collaboration and support to all holder partner	Between Groups	17.349	4	4.337	51.680	0.000
	Within Groups	34.072	406	0.084		
	Total	51.421	410			
27Att. Impulse buying service for "water based" used garage	Between Groups	137.152	4	34.288	175.278	0.000
	Within Groups	79.422	406	0.196		
	Total	216.574	410			
Total					46.580	0.000

*Significant at 0.05 or below 0.05 level

According to the table 4.21 the statistic result of Independent sample A found that the Customer decision making at garage service of respondent's opinion has been significantly in the price factor by 0.00 (significant level 0.05) And then when consider each topic the researcher found that "Place location, modernized, STD", "Place function and customer lounge", "Product premium, technology, original", "Product Environment mgmt.", "Product service commitment, reliable", "Promotion trend,

attractive in period”, “Promotion clean and clear offered”, “Price right, detailed, proved”, “Price collaboration and support to all holder partner”, “Impulse buying service for "water based" used garage” by 0.00 accordingly.

Part 6: Analysis testing of the independent factors that related to Customer decision making toward of the paint based technology of “solvent versus water based” at garage service.

Researcher was applied linear regression to analysis testing of the paint based technology of “solvent versus water based” at garage service. The result of analysis shown in following tables:

Table 4.22 Analysis testing of the independent factors that related to attitude of paint based technology of “solvent based” at garage service

Coefficients-a	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	-1.488	0.265		-5.611	0
Gender	-0.027	0.037	-0.019	-0.709	0.479
Age Range	-0.014	0.018	-0.021	-0.771	0.441
Education Level	0.009	0.026	0.01	0.363	0.717
Career	-0.005	0.016	-0.009	-0.302	0.762
Income per month	0.015	0.049	0.015	0.301	0.763
Car Brand	-0.014	0.007	-0.05	-1.925	0.055
often visit the garage	0.011	0.05	0.011	0.224	0.823
Demographic Total	-0.004	0.029	-0.009	-0.403	0.577
Place	0.029	0.024	0.04	1.19	0.235
Product	-0.019	0.048	-0.022	-0.401	0.689
Promotion	0.36	0.073	0.343	4.956	0
Price	0.951	0.086	0.548	11.013	0
Total 4P	0.33025	0.05775	0.22725	4.1895	0.231

a Dependent Variable: 25Att. Paint "Solvent based" still satisfaction this paint option more than new paint

*Significant at 0.05 or below 0.05 level

According to the table 4.22 the statistic result of Independent sample linear regression found The “solvent based” paint that related to customer decision making at

garage service has not been different significantly (significant level 0.05) by demographic factor at significant 0.577. And The “solvent based” paint that related to customer decision making at garage service has not been different significantly (significant level 0.05) by 4P factor at significant 0.231.

Table 4.23 Analysis testing of the independent factors that related to attitude of paint based technology of “water based” at garage service

Coefficients-a	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	-0.911	0.282		-3.237	0.001
Gender	-0.053	0.040	-0.036	-1.346	0.179
Age Range	-0.059	0.019	-0.086	-3.050	0.002
Education Level	0.030	0.027	0.032	1.100	0.272
Career	-0.003	0.017	-0.004	-0.149	0.881
Income per month	0.050	0.052	0.049	0.958	0.339
Car Brand	-0.004	0.008	-0.013	-0.509	0.611
often visit the garage	-0.040	0.053	-0.038	-0.759	0.448
Demographic Total	-0.011	0.031	-0.014	-0.536	0.390
Place	0.034	0.026	0.046	1.333	0.183
Product	-0.138	0.051	-0.152	-2.708	0.007
Promotion	0.669	0.077	0.612	8.662	0.000
Price	0.641	0.092	0.355	6.993	0.000
Total 4P	0.302	0.062	0.215	3.570	0.048

a Dependent Variable: 26Att. Paint "Water based" satisfied this new paint more than solvent

*Significant at 0.05 or below 0.05 level

According to the table 4.23 the statistic result of Independent sample linear regression found The “Water based” paint that related to customer decision making at garage service has not been different significantly (significant level 0.05) by demographic factor at significant 0.390. And The “Water based” paint that related to customer decision making at garage service has been different significantly (significant level 0.05) by 4P factor at significant 0.048.

Part 7: Data confirmation for hypothesis testing

One-way A and then linear regression analysis was applied to test all 15 hypothesis set in this research study in order to investigate the influencing of each given.

Table 4.24 Hypothesis testing

	Hypotheses Statement	Test Result
H1	H1 _o : Gender has no significant of attitudes towards customer decision making of the garage service H1 _a : Gender has significant of attitudes towards customer decision making of the garage service	Rejected H _{1o}
H2	H2 _o : Age has no significant of attitudes towards customer decision making of the garage service H2 _a : Age has significant of attitudes towards customer decision making of the garage service	Accepted H _{2o}
H3	H3 _o : Education level has no significant of attitudes towards customer decision making of the garage service H3 _a : Education level has significant of attitudes towards customer decision making of the garage service	Accepted H _{3o}
H4	H4 _o : Occupation has no significant of attitudes towards customer decision making of the garage service H4 _a : Occupation has significant of attitudes towards customer decision making of the garage service	Accepted H _{4o}
H5	H5 _o : Income has no significant of attitudes towards customer decision making of the garage service H5 _a : Income has significant of attitudes towards customer decision making of the garage service	Rejected H _{5o}
H6	H6 _o : Frequency garage visited has no significant of attitudes towards customer decision making of the garage service H6 _a : Frequency garage visited has significant of attitudes towards customer decision making of the garage service	Rejected H _{6o}

Table 4.24 Hypotheses Statement (Cont.)

H7	H7 _o : Car brand has no significant of attitudes towards customer decision making of the garage service H7 _a : Car brand has significant of attitudes towards customer decision making of the garage service	Rejected H _{7o}
H8	H8 _o : Place factor has no significant of attitudes towards customer decision making of the garage service H8 _a : Place factor has significant of attitudes towards customer decision making of the garage service	Accepted H _{8o}
H9	H9 _o : Product factor has no significant of attitudes towards customer decision making of the garage service H9 _a : Product factor has significant of attitudes towards customer decision making of the garage service	Rejected H _{9o}
H10	H10 _o : Promotion factor has no significant of attitudes towards customer decision making of the garage service H10 _a : Promotion factor has significant of attitudes towards customer decision making of the garage service	Rejected H _{10o}
H11	H11 _o : Price factor has no significant of attitudes towards customer decision making of the garage service H11 _a : Price factor has significant of attitudes towards customer decision making of the garage service	Rejected H _{11o}
H12	H12 _o : Demographics has no significant of attitudes towards “Solvent based” paint of the garage service H12 _a : Demographics has significant of attitudes towards “Solvent based” paint of the garage service	Accepted H _{12o}
H13	H13 _o : Demographics has no significant of attitudes towards “Water based” paint of the garage service H13 _a : Demographics has significant of attitudes towards “Water based” paint of the garage service	Accepted H _{13o}

Table 4.24 Hypotheses Statement (Cont.)

H14	H14 _o : Garage service factor; 4P has no significant of attitudes towards “Solvent based” paint of the garage service H14 _a : Garage service factor; 4P has significant of attitudes towards “Solvent based” paint of the garage service	Accepted H _{14o}
H15	H15 _o : Garage service factor; 4P has no significant of attitudes towards “Water based” paint of the garage service H15 _a : Garage service factor; 4P has significant of attitudes towards “Water based” paint of the garage service	Rejected H _{15o}

CHAPTER 5

CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

5.1 Conclusions

This is the concluding chapter of the research, which will bring the purpose of writing this research into context. This chapter also target at providing recommendations to the study, Therefore, the researcher will be making recommendations to the study, as well as other that researcher has conducted a detailed analysis of three parts and found the result as described by the following:

Part 1 The demographic aspect, from 411 of respondents and the researcher found that the majority of respondents is female for 54.8 percent, ages range of below 30 years old for 34.8 percent, then mostly education level at 53.5 percent by bachelor degree and private employee as occupation at 29.2 percent, most respondents salary rate are 10,000-30,000 baht at 64.2 percent, however most of consumer were visited garage as 3rd at 15.3 percent and most of consumer were Honda car brand at 38 percent.

Part 2: Analysis of the satisfaction level of respondent toward the independent factor of the independent factor of 4P by Place; garage location and facility, Product; service and technology, Promotion; attractive and reliable, Price; proved and collaborative of garage will have a significant for effect on customer decision making at garage service. The results showed significant relationship between factors at the significant level at 0.25 for gender independent factor and significant level at 0.05 for entire factor toward the dependent factor of the respondent's perception and attitude of garage service toward Consumer decision-making and paint based technology. The detail of the satisfaction level is described as following:

Garage service independent factor: Overall respondents rated Analysis of the satisfaction level of respondent toward the entire independent factor as satisfied the mean value was equal to 4.37 and SD equal to 0.79.

Place factor: Overall respondents rated Analysis of the satisfaction level of respondent toward the independent factor "Infrastructure and garage modernized" as

satisfied the mean value was equal to 3.99 and SD equal to 0.96. And “cleanliness and lounge for customer” as satisfied the mean value was equal to 3.75 and SD equal to 1.03.

Product factor: Overall respondents rated Analysis of the satisfaction level of respondent toward the independent factor “Technology and premium product” as satisfied the mean value was equal to 4.49 and SD equal to 0.81. And “Service and staff hospitality” as satisfied the mean value was equal to 4.21 and SD equal to 0.93.

Promotion factor: Overall respondents rated Analysis of the satisfaction level of respondent toward the independent factor “Promotion and commitment” as satisfied the mean value was equal to 4.42 and SD equal to 0.78. And “Added values and partnership” as satisfied the mean value was equal to 4.62 and SD equal to 0.69.

Price factor: Overall respondents rated Analysis of the satisfaction level of respondent toward the independent factor “Price and detailed” as satisfied the mean value was equal to 4.84 and SD equal to 0.39. And “Guarantee and collaboration to partner” as satisfied the mean value was equal to 4.65 and SD equal to 0.70.

Part 3: The researcher conducted Analysis of The respondent’s attitude Customer decision making at garage service of “Place location, modernized, STD”, “Place function and customer lounge”, “Product premium, technology, original”, “Product Environment mgmt.”, “Product service commitment, reliable”, “Promotion trend, attractive in period”, “Promotion clean and clear offered”, “Price right, detailed, proved”, “Price collaboration and support to all holder partner”, “Impulse buying service for "water based" used garage” by result as agreed about all 12 attitude Customer decision making factors total mean is 4.75 and standard deviation is 0.51.

Part 4: The researcher conducted Analysis of The respondent’s attitude of paint based technology of “solvent versus water based” at garage service, the results as agreed about all 3 factors total mean is 4.57 and standard deviation is 0.72.

Part 5: The researcher conducted Analysis testing of significant for effect on the independent factors that related to Customer decision making at garage service, the results express significant relationship between the demographic factor; gender, income, garage

visited frequency, car brand and garage service 4P; product, promotion and price at the significant level at 0.05.

Part 6: The researcher conducted Analysis testing of significant for effect on the independent factors that related to Customer decision making at garage service, the results express significant relationship between garage service factor and the paint based technology of “water based” at garage service at significant level at 0.05.

5.2 Discussions

This study aims to explore the process by which demographics and paint factors will affect the customer decision-making and impulse to be service in garage in Bangkok Metropolitan Area.

The researcher found that gender, income, visited frequency and car brand drove customer decision making to be customer of the garage. Results also showed that product, promotion and price are influence the customer as service garage factor then drove customer decision making to be customer of the garage as well. Moreover, “water based” paint is also the factor which customer agreed and consider to garage as impulse them to making the decision. However, the paint technology is may not the major factor for customer in regard their decision process but through the overall 4P; place, product, promotion and price actually. Sathish (2013) states that “the expectation scale of customer after sales service is raising. With the expectation of high value care with the latest technology and luxury features, the customers’ expectation from the dealers has increased in terms of service facilities and infrastructure. A dealer has to continuously raise his standards for customer satisfaction.” And more about the decision making issue his found that “Now it is confirmed that the customer retention is the main weapon for the success in the business. This necessitates the service center’s interacting with the customers very frequently and also implementing innovative ideas like “Having a computer at the customer lounge where the customer may know their vehicle status and use Internet or Wi-Fi” and “providing Express service for all jobs including body works”.

The paint technology as “traditional-solvent based” and “Water based” is more detailed and need the customer awareness in term of environment, pollution and

standardized the garage service. Not only the customer but also government policy may support the requirement.

5.2 Limitations

There are many limitations for this study. Firstly, this research study focus on behavior, perception and attitude the researcher found that the consumer may not be convenient and cooperate well to provide the opinion of the related of factors so the opinion may different by individually background of respondent.

Secondly, the respondents are not only residence in Bangkok. Therefore, the research finding may not be covered and generalized for other geographical areas where located on outside Bangkok Metropolitan Areas or other countries. Thirdly, this research study is conducted in a preset specific and period of limited time. Thus, the findings result possibly not be generalized for varies of the time period.

Lastly, the total sample size is unknown but only 411 respondents is selected as a population in order to represent the whole target population.

5.4 Recommendations

The study of “Factors Affecting Customer Decision Making of Buying Car Spray between Traditional Based Paint and Water Based Paint in Bangkok Metropolitan Area” would be more rely on the specified sample which customer of garage directly. Regard the total client of garage are possibly portion categorized as retailed, wholesale, affiliate by car manufacturer and so the insurance company business.

Firstly, the results of this study could be used for garage business marketing about the strategy of business trend and strategy plan in order to implement the competitiveness analysis targeting in effective sale return and achieve the good attitude return from customer.

Secondly, this study result could be used for business consideration about the strategy and research data support of product launching as long as clearly pictures then positioning of customer demand and satisfaction respectively.

Lastly this study will be utilizable in personal and business related in use as adaptive tools to design and improvement of marketing and development tool for customer consuming and satisfaction behavior.

5.5 Future Researches

According to the current competitiveness of garage business in Bangkok, the researcher has been informed the information by customer that they would be selected and consider the garage by contrast of guarantee status and insurance option as priority decision, then the following factor is fact by the quality and satisfaction decision. This advanced point was noticed and collected during the questionnaire collection process. Meaning to all car consumer to be two group account, guarantee cover or out of guaranteed.

Most of garage business in Bangkok are mainly contract as committee or sub-contract by car manufacturer which will be support the garage as resource and material requirement. Moreover, all car manufacturer will promoted the standard and special requirement in any garage to implement in order to maintain the contract. This is mean the guaranteed number of customer for the garage business.

However, The service and product quality maybe some time force the garage owner about the investment shifting time to time and investment return management in a period as researcher discussion in previously chapter about the “water based” paint may costing the garage investment weigh of the customer satisfaction and garage branding. Then they consider option about the supply and demand of this business will be the chain from manufacturer to the end user who own their car and support the business growth.

In this research generally focused on consumer who current customer of garage but in the future research would focus more on two major group of customer, guaranteed or customer own expense because the decision making will be significantly different by customer own decision or guarantee condition, thus beside the customer attitude and service quality impulse decision but there is the after sale service by car insurance as well.

APPENDIX A
SURVEY QUESTIONNAIRE



Questionnaires of Customer Decision Making of Car Spray (Water Based Paint) in Bangkok Metropolitan Area

Please tick ✓ by choosing the most answer that relate your consideration.

Part 1 General Information

1. Gender ☐ (1Male ☐ (2Female
2. Age ☐ (1Below30 years ☐ 40 - 31 (2years ☐ 41 (3– 60 years ☐ (4Over 60years
3. Education Level
☐ (1 Elementary ☐ (2High school/High Vocational Degree ☐ (3Bachelor
☐ (4Higher than Bachelor Degree ☐ (5 other, please specify.....
4. Occupation
☐ (1Entrepreneur ☐ (2Government/ Enterprise
☐ (3Private employee ☐ (4Student
☐ (5 other, please specify.....
5. Income
☐ (110,000 baht or below ☐ (210,001 – 30,000 baht
☐ (330,001 – 50,000baht ☐ (4more than 50,000 baht
6. Car brand to be serviced
☐ (1Honda ☐ (2Toyota ☐ (3Nissan ☐ (4Chevrolet ☐ (5Fords
☐ (6Benz ☐ (7BMW ☐ (8MitsubishiOther.....
7. Frequency visited garage
☐ (1st time ☐ (2nd time ☐ (3rd time ☐ (4more than 3 times

Part 2: Car care service satisfaction

Please rate your opinion for the following factors obtain and satisfaction regards the service in the car garage. Please check only one per choice. (Consider 5 as the most satisfactory and 1 as the least satisfactory)

5 = Excellent 4 = Good 3 = Average 2 = Fair 1 = Poor

Place Factor	1	2	3	4	5
8.In your opinion the car center location is good, modern and standardization					
9.In your opinion the car garage cleanliness and customer reception area including customer lounge are satisfy your perception					
Please specified.....					
Product factor	1	2	3	4	5
10.Product quality and so technology of premium product meet your perception					
11.service and hospitality of staff and personal support					
Please specified.....					
Promotion Factor	1	2	3	4	5
12.Satisfy of service and product commitment of car garage					
13.satisfy of cooperate in case of emergency or check up service by the garage network					
Please specified.....					
Price Factor	1	2	3	4	5
14.Price and charge cost are satisfy your service obtain, reasonable price					
15.satisfy of coroperate among the garage and insurance company regard the pending claim or extra issues					
Please specified.....					

Part 3: Car Garage service Attitude

Please rate your opinion for the following factors perception regards the service in the car garage. Please check only one per choice. (Consider 5 as the mostly agree and 1 as completely disagree)

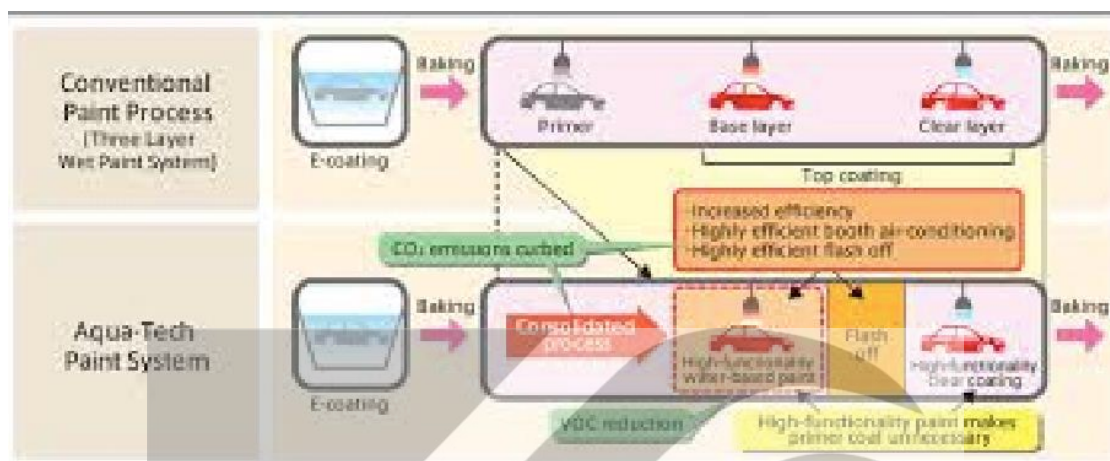
Place factor	1	2	3	4	5
16.Car Garage location must easy access , modern, and standardized					
17.Car garage cleanliness and customer reception area including customer lounge are most importance need					
Product Factor	1	2	3	4	5
18.to original Highest Product material and specification comply prodction by manufaturer					
19.Garage with well control waste and environmental manage					
20.all due and service agreement are tracking and proof for all agreement made for customer					
Promotion factor	1	2	3	4	5
21. Promotion and price of product and servicewas adjust to the right demand of customer					
22.trustworthy of service and rely of quality level are guaranteed					
Price Factor	1	2	3	4	5
23.Price agreement and document are proof and tracebility					
24.forward and connection within the coroperate company for any unplan issue discussion and helps					

Part 4 Paint Technology attitude

Please rate your opinion for the following factors perception regards the paint technology in the car garage. Please check only one per choice. (Consider 5 as the mostly agree and 1 as completely disagree)

Please compare the information below for the paint based technology using in the car garage: Water based VS Solvent Based

Source: www.mazda.com



Old paint(Solvent based)		New paint(Water based)	
✓	✗	✓	✗
No need to change the equipment	High pollution(VOC)*	Less pollution(VOC)*	Need to change the equipment
No need the specialist	Strong smell	Less smell	Need more training
Cheap price	High voltage	Low voltage	
	Difficult to control the paint quality	Can control the paint quality	
	More process	Less process	

VOC* (volatile organic compounds)

Paint Based Technology	1	2	3	4	5
25. In your opinion the old solvent technology need to solve many car center problems.					
26. In your opinion the new solvent technology has many good benefits and suitable for the car center.					
26. You agree and decide to choose this new solvent service with the car center.					

Suggestion Thank you for your cooperation and the dedicated times for the useful information for the car garage to improve the better product.

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