

A Comparative Study of Perceived Car After-Sales Service Quality Dimensions and Brand Loyalty of Two Car Manufacturers in Bangkok, Theitiand

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration in Marketing Graduate School of Business

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# A COMPARATIVE STUDY OF PERCEIVED CAR ATER-SALES SERVICE QUALITY DIMENSIONS AND BRAND LOYALTY OF TWO CAR MANUFACTURERS IN BANGKOK, THAILAND 

## BY

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A Thesis submitted in partial fulfillment of the requirements for the degree of

Master of Business Administration

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## CHAPTER 1

## GENERALITIES OF THE STUDY

### 1.1 Introduction

When it is time to replace a car, some car owners easily jump ship to other brands while others will invariably settle for the same old brand (Sambandam and Lord, 1995). It is on this sole decision either to remain loyal to the current brand or opt for another, which the destiny of automobile manufacturers and retailers hangs. While automakers have long focused on achieving new vehicle sales by attracting the competition's customers, the focus has now been diverted to keeping existing customers. Good quality products, satisfying showroom episodes, and top-notch after-sales service are all prerequisites to the loyalty equation and as a result automakers have ramped up significant marketing endeavours in this regard (Illingsworth, 1991).

Peppers and Rogers (1996) observed that keeping a large number of loyal customers reduces the risk of their making purchases from competitors. Additionally, customers who are loyal are likely to bring in greater returns as they become wealthier and purchase premium vehicles which yield more profits for the auto industry. This guaranteed allotment of sales, grows in proportion to how many new customers can be maintained through measures promoting loyalty in the period subsequent to the purchase. Customers loyal to a dealership are more likely to make further supplementary purchases - an important element in the motor industry which depends heavily on vehicle maintenance and accessories. Huber, Hermann and Morgan (2001) suggested that it is highly probable, that price sensitivity declines as loyalty increases, subsequently minimizing the tendency to compete on the grounds of monetary circumstances with regard to customer loyalty.

In the same way that a relationship persists between store loyalty and brand loyalty in purchasing brand name goods (Cunningham, 1956, 1961; Carman, 1970; Stearns et al., 1982; Tranberg and Hansen, 1986; Mills, 1990), a similar relationship can be said to exist between dealer loyalty and brand (automaker) loyalty. Satisfaction with both aspects will play a role as the customer decides on his/her next purchase. However, it may be expected that satisfaction with the automaker (brand) determines the intention to repurchase a given brand, while satisfaction with the dealer determines the intention to repurchase the dealer's services (Ewing, 2000). Furthermore, a customer's satisfaction with an automaker's brand may have an influence on the decision to repurchase a dealer's services, and a customer's satisfaction
with a particular dealer may affect the intention to repurchase the automaker's brand (Ewing, 2000).

Maintaining a superior level of service quality is one means automakers and their representative dealerships are employing to keep customers consistently satisfied and loyal to the point of sale and consequently, to the brand (Anderson and Narus, 1995; Chu and Desai, 1995). Moreover, service quality has been rightly regarded as a dependable means for obtaining sustainable competitive advantage, implying that service quality elements have a significant role in a company's business strategy (Rigopoulou, Chaniotakis, Lymperopoulos and Siomkos, 2008). Having a firm comprehension of the perceived service quality from a customer's point of view, therefore, is essential to delivering distinguished service (Bouman and van der Wiele, 1992). The concept of service quality is applicable to all sectors since nowadays a "total product-offering" comprises a tangible and an intangible component. Support services such as hot lines, customer support services and several other accepted and widely used modes of after-sales services enhance the complete product package signific antly by delivering an "augmented product" that is set apart from its tangible part by modifying it to a 'product-service mixture" offer. Additionally, the importance of these auxiliary services relative to the main service offered is rapidly gaining growth, thus pushing more companies to step up investments in providing extra services in a bid to differentiate themselves (Rigopoulou et al., 2008). Again, after-sales services are taking centre stage to the total expanded product offering (Rosen and Surprenant, 1998). In the automobile sector, the aftersales sector, long after the customer has taken delivery of the car, represents a means of continuous contact between the car producers and the customers via the dealers (Ehinlanwo and Zairi, 1996).

Thailand's automobile industry provides customers with a wide range of options when it comes to decisions about purchasing and maintaining their cars. All the major global automakers have dealer representation in the local market offering sales and after-sales services to their customers nationwide. Toyota Motor Thailand (Toyota) and Honda Automobile Thailand Company (Honda), the local representatives of Toyota and Honda Corporations respectively, have long occupied 1st and 2nd place positions respectively in the Thai passenger car market. Both have an established countrywide dealer network totalling about 150 dealers between them, to offer a comprehensive range of after-sales services to their numerous customers. In a 2008 Customer Satisfaction Index (CSI) study conducted by J.D. Power Asia Pacific, Toyota ranked the highest in terms of customer satisfaction with
authorized dealer after-sales service inThailand, the first time since 2003, scoring 853 on a 1000 point scale. Honda scored 844 points, a score below the industry average of 847 points. In a 2007 study, Country manager at J.D.Power Asia Pacific, Loic Pean, observed that "the relationship between customer satisfaction with service centres and customer retention is becoming more apparent, as customer defection to non-authorized service centres is much higher among those who indicate they are not pleased with their authorized dealer. Moreover, customers who say they are 'delighted' are twice as likely to revisit the same dealer for post-warranty service. Satisfying customers is essential to securing future business and increasing loyalty."

In view of the importance of perceived service quality, customer satisfaction, dealer aftersales loyalty and brand loyalty with regard to the profitability and success of automakers and dealers alike, this study aims to investigate the differences and interrelationships of these variables between Toyota and Honda.

### 1.2 The Auto Industry in Thailand

Ernst \& Young (2009) noted that Thailand has entrenched itself as a worldwide base in South East Asia for the manufacture of automobiles. After the 1997 economic crisis, Thailand has experienced an impressive hike in the export of passenger car and commercial vehicles, with automobile shipments making up a third of the total automobiles produced. Thailand, seeking to become the "Detroit of Asia", has attained the status of main manufacturing hub for several automakers and their parts suppliers, such as Ford, Isuzu, Mazda, Mitsubishi and Toyota, serving the local and foreign markets.

Table 1.1: Car density of some Cities

|  | Population <br> (million) | Number of <br> passenger cars <br> (million) | Car density (cars <br> per 1,000 people) |
| :--- | ---: | ---: | ---: |
| Germany | 82.2 | 46.81 | 565 |
| UK | 61.0 | 31.34 | 521 |
| US | 302.8 | 136.01 | 450 |
| Czech Republic | 10.2 | 4.31 | 424 |
| Poland | 38.1 | 14.21 | 369 |
| South Korea | 48.9 | 9.65 | 246 |
| Russia | 142.3 | 26.79 | 188 |
| Brazil | 189.4 | 19.80 | 107 |
| Thailand | 65.3 | 6.10 | 93 |
| Turkey | 75.1 | 6.24 | 85 |
| China | $1,322.1$ | 21.43 | 16 |
| India 0 | $1,135.6$ | 12.06 | 9 |

Sources: www.ihsglobalinsight.com (10/11/2009)

The auto industry in Thailand is rather small, compared to other markets, however, as shown in Table 1.1. With a passenger car population of about 6 million and 93 cars for every 1000 people, Thailand is ranked $9^{\text {th }}$ right after Brazil, which registers a passenger car population of 19.8 million and 107 cars per 1000 people. Furthermore, the automotive sector ranks third among the top industries in Thailand yielding annual returns of 930 million baht, with a workforce of approximately 300,000 in 2008.

Table 1.2: Production Capacity of Automakers in Thailand as of 2005

| Assembly plants | Brands | Total capacity (units) |
| :--- | :--- | :---: |
| Toyota Motor Thailand | Toyota | $450,000^{*}$ |
| Auto Alliance (Thailand) | Ford, Mazda | 300,000 |
| MMC Sittiphol | Mitsubishi | 200,000 |
| Isuzu Motors (Thailand) | Isuzu | 180,000 |
| Siam Motor \& Nissan | Nissan | 130,000 |
| Honda Automobile (Thailand) | Honda | 120,000 |
| General Motors Assembly Center | Chevrolet | 115,000 |
| Hino Motors (Thailand) | Hino, Isuzu | 28,800 |
| Thonburi Automotive Assembly Plant | DaimlerChrysler | 20,000 |
| Y. M. C. Assembly | BMW, Peugot, VW | 12,000 |
| The Rung Union Car | Isuzu, Tata | 12,800 |
| Thai-Swedish Assembly | Volvo, Land Rover | 10,000 |
| BMW Thailand | BMW | 10,000 |
| Bangchan General Assembly | Jeep, Chrysler | 20,000 |

Source: www.thaiauto or.th (10/11/2009)

Table 1.2 lists the production capacity of the automakers in Thailand as of 2005. According to the Thailand Automotive Institute, as shown in the table, there were 15 manufacturing facilities, churning out a total of $1,301,149$ cars in 2007, a rise of approximately $9 \%$ from previous years. Toyota had the largest capacity with an output of 450,000 units in 2005 , which increased to 550,000 in 2007. Honda, Toyota's closest competitor in the passenger car market segment had an output of 120,000 units, placing it $6^{\text {th }}$ on the table.

Figure 1.1: Graph of Domestic Sales of Passenger and Commercial Cars


Source: www.thaiauto .or.th (10/11/2009)

As Figure 1.1 shows, the passenger car segment has experienced fluctuating sales growth over the last four years, reaching its highest point in 2008 with sales of 238,990 units. This figure is not likely to be surpassed this year, given the prevailing global economic conditions, and sales of 182,029 units from January to October of 2009. The commercial car segment, which includes pickup trucks, SUVs and buses, has suffered a successive decline in sales in the last four years, with 2009 sales of 237,726 so far standing at about half of 2006 sales.

Figure 1.2 Unit Sales by Vehicle Type


Source: www.thaiauto.or.th (10/11/2009)

Despite the 2008 global economic crisis, the car industry in Thailand has seen sales rising in all segments in the last 10 months of the year 2009 as shown in figure 9. Still, at this rate of growth, total sales for the year are not likely to exceed 2008 figures of 240,000 units. The one-ton pickckup, the vehicle of choice for most Thais, has enjoyed better sales figures for most of the year compared to passenger cars and other vehicle types; total sales for the period for the one-ton pickup stand at 192,019, compared to 182,029 for passenger cars.

Table 1.3 Passen ger Car Sales by Brand (January-October 2009)

|  | Units | Market Share |
| :--- | ---: | ---: |
| Toyota | 78353 | $44.6 \%$ |
| Honda | 67967 | $38.7 \%$ |
| Nissan | 6832 | $3.9 \%$ |
| Chevrolet | 5734 | $3.3 \%$ |
| Mazda | 3850 | $2.2 \%$ |
| Benz | 3242 | $1.8 \%$ |
| Mitsubishi | 2855 | $1.6 \%$ |
| Proton | 2328 | $1.3 \%$ |
| BMW | 1413 | 759 |
| Ford |  | $0.8 \%$ |

Source: www.toyota.co.th (10/11/2009)

Figure 1.3 Market Share of Automakers


Source: www.toyota.co.th (10/11/2009)

As table 1.3 and figure 1.3 show the passenger car market in Thailand is dominated by the perennial number 1 and 2 Japanese automakers, Toyota and Honda with market share of $44.6 \%$ and $38.7 \%$ respectively. Indeed, aggregate sales for the January-October period have five Japanese automakers in the top five, with one American manufacturer, Chevrolet coming in fourth after Toyota, Honda and Nissan, ahead of Mazda. Premium automakers Mercedes Benz and BMW have a small share of the market ( $1.8 \%$ and $0.8 \%$ respectively). (Ernst \& Young, (2009), Automotive Market in Thailand: Industry Overview (EYG no. ED0026). EYGM Limited.)

### 1.2.1 Dealership Network

For the local automotive industry to grow, the establishment of a countrywide dealership chain to cater to customers is imperative. In order to spur sales and realize the anticipated brand participation, most automakers make financial or technical support available to their dealers and assist with marketing related activities, showroom renovations or qualified personnel to facilitate service training. While some dealers exclusively represent single brands others opt for a strategy to market several brands so as to cater to a particular market segment or extend their customer portfolio. Notwithstanding the importance of dealerships to auto companies, these auto companies are oftentimes approached by interested dealers. Well-known automakers are meticulous in their procedures to select dealers. Newer players like Chevrolet, Proton and a few automakers from Europe must adopt a different approach from their Japanese counterparts as it is more difficult to access trustworthy dealers. It is not uncommon to find some brands sold through a dealership network set up by an individual who imports cars from Europe.

Access to parts and trusted services are further important reasons for the domination of the popular automakers. Authorized dealerships and service facilities are few in the countryside and it is assumed that maintenance and parts will be obtained from domestic auto shops which are more likely to be able to cater to the brands which have existed for some time (Ernst \& Young, Automotive Industry in Thailand Industry Overview, pg 37).

### 1.3 Company Profile: Toyota

Toyota has been supplying Thailand with high-quality automobiles for almost half a century. It is the largest automaker and most popular automobile brand in Thailand with a market share of $43 \%$ as of July of 2009. Established in 1962, the company has grown to
emerge as one of the most successful and well respected corporations in Thailand where it runs three plants with a combined capacity of 550,000 vehicles. Dedicated to serving the needs of its customers, the company has produced some of Thailand's best-selling vehicles, including pick-ups and four-wheel-drives, as well as family cars. These include Yaris, Camry, Altis, Vigo, Wish, Fortuner, among others and two more recent addition; the Alphard and Camry Hybrid. For the year 2008, Toyota registered total vehicle sales of 25,963 units, representing a $44 \%$ share of the market. Toyota recorded a total sales volume of 23,774 units for October 2009, which represented a market share of about $45 \%$.

Toyota has expanded its network countrywide to include 119 dealers and 312 showrooms, from an initial offering of 13 dealers. All these dealerships are staffed with certified personnel ready to provide expert services to their customers. (www.toyota.co.th, 3/12/09)

Figure 1.5 Customer Satisfaction Index Ranking (based on 1,000 point scale)


Source: J.D. Power Asia Pacific (2008), Thailand Customer Satisfaction Index (CSI) Study.

In a 2008 Customer Satisfaction Index (CSI) study conducted by J.D. Power Asia Pacific, a customer satisfaction research and consulting firm in the automotive, information technology and finance industries, Toyota ranked highest in customer satisfaction with authorized dealer servicing for the first time since 2003, as shown in Figure 1.5. This yearly study was conducted to measure customer satisfaction with maintenance and repair service at authorized dealer service centres. In order of importance, the seven factors measured to determine overall satisfaction are: service quality; problems experienced; service delivery; user-friendly service; service advisor; service initiation; and in-service experience. The CSI performance is reported as an index score on a 1,000 point scale.

Of the eight brands surveyed in the study, Toyota ranked highest, scoring a total CSI mark of 853 with the best performance in the in-service experience and user-friendly service factors. Honda made considerable improvement since 2007 scoring 844 with the best performance in the service initiation, in-service experience and service delivery factors.

## 2009 / 2010 Global Vehicle Recalls

Towards the end of 2009 and beginning of 2010, Toyota Motor Corporation issued three separate but related recalls of vehicles. These recalls were initiated after several cars experienced unintended acceleration.

The first recall was to fix a likely obstruction of the foot pedal by an improperly placed driver's side floor mat which could cause the accelerator pedal to be trapped. The second recall, in January 2010 begun after some crashes which were not due to the floor mat obstruction. This defect was attributed to the mechanical sticking of the accelerator pedal thereby causing unintended acceleration. This was later referred to by Toyota as the "Sticking Accelerator Pedal." In February 2010, in the wake of the floor mat and accelerator pedal recalls, Toyota issued yet another recall for hybrid anti-lock brake software. In all, a total of 9 million vehicles were recalled worldwide including the best selling models Camry and Corolla as well as its Prius hybrid model. In addition, sales of those vehicles involved in the accelerator pedal recall were suspended for weeks. Toyota has since identified a fix for the accelerator pedal problem and has already begun fixing the affected vehicles.

The National Highway Traffic Safety Administration (NHTSA) of USA estimates that a total of 89 deaths could have been caused by unintended acceleration in Toyota vehicles. Additional reports indicate that injuries as a result of the defect are currently at 57. Recently, Toyota agreed to pay a $\$ 16.4$ million fine for its delayed response to U.S. customers'
concerns. The Washington Post reported that "the sanction represents the largest financial penalty imposed by the U.S. government on an automaker." In addition, several lawsuits are pending against the company.

The quality issues that rocked Toyota Motor Corporation in the United States have highlighted consumers' increasing preoccupation with quality. Toyota has long been known globally for its high quality products. However, its race to obtain market share leadership in the US market caused it to sacrifice the quality that it has come to be associated with. The 2009/2010 global vehicle recalls and the associated quality issues affected the brand image of the vehicle manufacturer and brand loyalty as well. Sales figures for the month of February 2010 revealed an $8.7 \%$ drop compared to the previous year while other competitors realized increase in sales.

As Toyota's situation shows, consumers are becoming more quality aware and thus companies who are committed to providing superior quality products and services stand to gain a competitive advantage over their competitors in the market place.

### 1.4 Company Profile: Honda

Honda began its Thailand operations in 1983 and is viewed as a recent entrant in the domestic market. In two decades Honda has attained the status of one of Thailand's biggest automakers, with sales increasing in excess of 520,000 units as of the beginning of 2004. The main models sold by Honda in Thailand include the City, Civic, Accord, CR-V, Jazz and the recently launched Freed. In addition, Honda has been marketing its CBU models (Stream, Odyssey, S2000 coupe) and the Civic Hybrid. For the year ending December 2008, Honda's vehicle sales stood at 10,037 representing a $42.3 \%$ share of the market. Vehicle sales at the end of October 2009 were 8,628 compared to 7,731 in the same month the previous year, representing an increase of $11 \%$ and a $37.93 \%$ market share.

Pursuant to its dedication to providing the best satisfaction and user experience to its customers, Honda presently has a countrywide network of 123 dealers in offering expert service to each and every Honda customer and catering to the rapidly changing preferences and demands in the auto industry. Moreover, to cater to the ever-increasing demand for genuine Honda car parts, Honda has established its Asia Parts Center, also known as the Honda Parts Center, at the Wellgrow Industrial Park in Chachoengsao province. Not only does this center eliminate the delays associated with imports, it also expedites the timely delivery of parts to all Honda Service Centers around the country. To supplement its stock of
high quality genuine auto parts at competitive prices, Honda has a good stock of good quality, low priced Honda aftermarket parts (HAMP) that are comparable to the genuine parts in durability and a 6 -month or $10,000 \mathrm{~km}$ warranty (www.Honda.co.th, $3 / 12 / 09$ ).

### 1.5 Critical Aspects of After-sales Service

The term "after-sales services" has been used mostly to refer to those services provided to the customer upon delivery of the products (Vitasek, 2005). They are also referred to as "field services" when they are a component of the main features that are situated at a customer's site (Simmons, 2001). Agnihothri et al., (2002) used the term "aftersales support" and "technical support" or just "services" as alternative terms in the literature (Goffin and New, 2001). Lele and Karmarkar, (1983) suggested that "after -sales services" are frequently described as "product support activities", that is, the overall activities supporting transactions that are product-centered. In the literature, they are also referred to as "customer support" features, meaning, the overall activities that enable the availability of a product to consumers "over its useful lifespan for trouble-free use" (Loomba, 1998). For the purpose of this study, however, the researcher uses Ehinlanwo and Zairi's (1996) definition of after-sales service as all the undertakings performed towards the goal of managing and sustaining the "quality and reliability" of the vehicle performed at the post-purchase stage aimed at achieving a satisfying experience for the customer.

In recent years, after-sales at the production stage have been made up of three main outfits technically related: "parts, accessories and service." This division is essential due in part to the different profit margins on parts and accessories. Consequently, after-sales are regarded as including products and a service factor (supplements or modifications or recommendations offered after the customer has taken delivery of the car). "Product" here refers to all the parts that can be affixed to the car so that it meets the owner's specifications, while "service" covers the "human or mechanical" ingredient/interchange essential to the installation or notification of the likelihood of a product installation on the vehicle. Included in this are all recommendations, instruction and interchanges with the vehicle owner/user (Ehinlanwo and Zairi, 1996).

### 1.5.1 Subdivision of Products:

Products can be divided into four components as defined below:

- Parts: they are the components of an automobile that, owing to regular "wear and tear", require replacement so that the vehicle satisfies its chief purpose as an aid to transportation.
- Accessories: these refer to the supplements that can be purchased and affixed to the vehicle without affecting its normal operation.
- Tyres: under this category are summer and winter tyres and also normal and wide tyres.
- Autochemicals: these chemicals not only ensure that the car fulfills its chief function, but also keeps its outward appearance. This category includes car paints and accessories, motor oils, specialised materials for cleaning and waxing, etc. (BBE Branch Report, 1994).

After-sales service is carried out through the system of vertical marketing employed for new vehicle sales, which in practice consists of the "single-phased" and "double-phased" systems. A single-phase system pertains in the situation where the manufacturer directly supplies dealerships or points of sale without using any intermediaries. Honda, BMW and Porsche employ this system. In the double-phase system, the manufacturer supplies a group of dealerships directly who then supply a single dealership or sales point or several others. Toyota, Volkswagen AG and Ford are examples of automakers practicing this system. In this marketing process, the main procedures are centred on the "policies, processes and strategies" employed by the automakers in making sure that the dealers are ready and in a position to render services that achieve customer satisfaction. Ehinlanwo and Zairi (1996) identified the following policies as essential to delivering after-sales service:

- Product Policies: Product is an aspect of the after-sales service and therefore the provisions whereby the dealer obtains this products is crucial factor to the success or failure of the dealership. In Europe, for example, automakers have the rights to restrict dealerships in order to exclusively market their original parts or products. Thus, in this case, even when prices are unfavourable, a dealer has no option but to purchase products from its car manufacturer.
- Price policies: Price policies influence the profit margins and are significant to the dealer and producer. Dealerships have an image of carrying expensive prices compared to other sales points, which is a major problem. A critical focus of producer
policies is an effort to implement explicit price guidelines at the sales outlet. Moreover, the price at which after-sales services are offered to end users is influenced largely by the price arrangements between producer and dealer.
- Promotion Policies: An appropriate promotion policy is necessary so as to create awareness among the market audience targeted of the after-sales provisions on offer by the producer and dealer. Well-designed policies are sure to fail if the target market is not aware of them. It has been the tradition for producers to play a significant role in the development of schemes at promotion. Recently, the "corporate identity" efforts of several automakers portray the essence of after-sales promotional schemes. As such, the success of the producer's and dealer's after-sales policies hinges on the producer's promotional efforts.
- Distribution Policies: After-sales deliveries are influenced by the accessibility of the after-sales products. The duration the customer must endure to obtain the required product affixed to his vehicle influences the perception of service quality. The number of products the dealer requires to stock in inventory affects his ability to make profits. If these are minimal, his fixed costs are reduced and profits and liquidity will increase. Consequently, policies regarding distribution and how efficient these are have an important part to play in after-sales measures.
- Service Policies: Product technology is now becoming more and more generic. As a result, service now provides a means for providers to differentiate their policies and offers from those of the competition. Given the effective performance of all other crucial measures, the service policies reflect the most significant means to set apart the offerings of producer and dealer alike. As consumers' requirements are more and more homogenous, it is necessary for service policies to be tailored to go the extra mile to please customers. Such policies include regular efforts by producers to train and provide consultation to enable their sales outlets to offer competitive services to achieve customer satisfaction. As dealers compete fiercely and as product vehicles evolve technically, it is paramount that producers provide a comprehensive package that supports and trains dealers so as to obtain the extra assistance and achieve customer satisfaction and retention.
- Environmental Policies: An emerging trend among consumers worldwide is environmental awareness. In Thailand for example, corporations are now integrating environmental factors into their policies. Automakers and their dealerships need to
consider how important the environmental issues are to their impending policies if they are to retain their customers (BBE Branchen Report (BBE Branch Report), Vols 1/2, BBE Consultants, Cologne, 1994, p. 293).
Meining, (1995) corroborated these identified policies in a study in which 1,120 dealers in contract with 28 producers were asked to rank elements that enabled them to be successful in the ir operations and satisfy customers. They identified the following factors among others that influenced their success:

1. After-sales price policies.
2. After-sales distribution policies.
3. An adequate market size (i.e the geographical area for which the dealer is responsible).
4. After-sales service policies.
5. After-sales promotion.

### 1.6 Statement of the Problem

The importance of service quality to achieve a high level of loyalty among a business's customers cannot be overemphasised. Unless the organization is able to retain the loyalty of its customers, the continuity of business cannot be assured. One way for dealers to spur brand retention or loyalty is through their sales and service efforts.

The recent preoccupation with service quality in the car service industry has largely been due to the emergence of customers who increasingly emphasize the aspect of a garage related to the service delivered. Companies on the other hand have placed more emphasis on the technical knowledge they possessed. This disconnection between customers' expectations and the dealerships capability has not augured well for business. A 2005 study of Customer Satisfaction in Thailand with authorized dealer after-sales service revealed that customers are increasingly moving to aftermarket service facilities in growing numbers. While in the inaugural 2000 study, just 20 percent of vehicle owners had their cars serviced at an aftermarket outfit, in 2005, 38 percent made the switch from authorized after-sales-service centres.

At the dealership level, the cutthroat competitiveness of the car industry has spurred a reduction in profit levels and return on sales. Additionally, authorized after-sales service dealers are losing market share to aftermarket outfits and the general after-sales business, owing to form of new companies and competitiveness. In Thailand, for example, vehicle owners can choose from a wide range of aftermarket garages that include B-Quik, V care

Auto Service, Shell Auto Service among others. In a 2007 Customer Satisfaction Index Study in Thailand, Loic Pean, Country manager at J.D.Power Asia Pacific, observed that "the relationship between customer satisfaction with service centres and customer retention is becoming more apparent, as customer defection to non-authorized service centres is much higher among those who indicate they are not pleased with their authorized dealer. Moreover, customers who say they are 'delighted' are twice as likely to revisit the same dealer for post-warranty service. Satisfying customers is essential to securing future business and increasing loyalty."

Put together, these problems have heightened the necessity to craft strategies that are targeted at eliciting higher levels of customer brand loyalty through improved service quality. More than ever, it is crucial that present customers not only be satisfied, but also consistently pleased. The purpose of this study is to compare the perceived car after-sales service quality dimensions of Toyota and Honda and ascertain how customer satisfaction influences dealer after-sales loyalty and brand loyalty.

### 1.7 Research Questions

The research questions that this study seeks to answer are grouped into two as follows:

## Group 1

1. Is there any difference in perceived car after-sales service quality between Toyota and Honda customers in Bangkok when determined by three dimensions of kindness, tangibles and faith?
2. Is there any difference in satisfaction with after-sales service between Toyota and Honda customers in Bangkok?
3. Is there any difference in dealer after-sales loyalty between Toyota and Honda customers in Bangkok?
4. Is there any difference in brand loyalty between Toyota and Honda customers in Bangkok?

## Group 2

5. Is there any relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok?
6. Is there any relationship between satisfaction with after-sales service and dealer aftersales loyalty of Toyota and Honda customers in Bangkok?
7. Is there any relationship between dealer after-sales service loyalty and brand loyalty of Toyota and Honda customers in Bangkok?
8. Do perceived car after-sales service quality, satisfaction with after-sales service and dealer after-sales loyalty have a statistically significant effect on brand loyalty of Toyota customers in Bangkok?
9. Do perceived car after-sales service quality, satisfaction with after-sales service and dealer after-sales loyalty have a statistically significant effect on brand loyalty of Honda customers in Bangkok?

### 1.8 Research Objectives

The main objective of this study is to compare the perceived car after-sales service quality between Toyota and Honda dealerships and their influence on dealer after-sales loyalty and brand loyalty as a result of customer satisfaction. The research objectives are outlined as follows:

## Group 1

1. To compare perceived car after-sales service quality between Toyota and Honda customers in Bangkok when determined by three dimensions of kindness, tangibles and faith.
2. To compare satisfaction with after-sales service between Toyota and Honda customers in Bangkok.
3. To compare dealer after-sales loyalty between Toyota and Honda customers in Bangkok.
4. To compare brand loyalty between Toyota and Honda customers in Bangkok.

## Group 2

5. To study the relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok.
6. To study the effect of satisfaction with after-sales service on dealer after-sales loyalty of Toyota and Honda customers in Bangkok.
7. To determine the relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok.
8. To determine the effect of perceived car after-sales service quality, satisfaction with after-sales service and dealer after-sales loyalty on brand loyalty of Toyota customers in Bangkok.
9. To determine the effect of perceived car after-sales service quality, satisfaction with after-sales service and dealer after-sales loyalty on brand loyalty of Honda customers in Bangkok.

### 1.9 Scope of the Research

This research is envisaged as a descriptive research employing a questionnaire as a survey instrument to collect data from Toyota and Honda passenger car owners in Bangkok who have serviced their cars at authorized dealerships. Data was collected from eight Toyota and Honda dealerships in greater Bangkok province. The research model consists of three independent variables and one dependent variable. The three independent variables are: perceived car after-sales service quality, after-sales service satisfaction, and dealer after-sales loyalty, with brand loyalty as the dependent variable. The perceived car after-sales service quality variable has subcategories of kindness, tangibles and faith.

The questionnaire used in this study was adapted from several previous studies. Questions measuring perceived car after-sales service quality were adapted from Measuring Service Quality in the Car Service Industry: Building and Testing an Instrument by Bouman and van der Wiele (1992). The after-sales service satisfaction questions were adapted from a typology analysis of service quality, customer satisfaction and behavioural intentions in mass services by Olorunniwo and Hsu (2006). Additionally, questions for dealer after-sales loyalty and brand loyalty were adapted from Explaining brand loyalty, dealer sales loyalty and Dealer after-sales loyalty: the influence of Satisfaction with the car, satisfaction with the sales Service and satisfaction with the after-sales service by Bloemer and Pauwels (1998).

### 1.10 Limitations of the Study

This study has a number of acknowledged limitations. First, since the study covered only two automobile brands in Thailand, the findings cannot be generalized to other automotive brands in Thailand or in other countries. Second, service quality was measured only in terms of customer's perception to the exclusion of their expectations prior to utilising the service. Third, in order to solely focus on the after-sales service aspects of car ownership, the influence of car and sales service satisfaction, and the resulting loyalty intentions are not tested in this study. Fourth, the study is limited in regards to the scope of dealer after-sales loyalty. Satisfied or dissatisfied customers may express loyalty behaviours in various ways, for example, through repurchase intentions, by switching behaviour and through positive
word of mouth, complaints and so on. Fifth, this research focuses on a single aspect of brand loyalty, repurchase intention, that is, whether or not one intends to purchase the product again, based on the customer's perception of the dealer's after-sales service.

### 1.11 Significance of the Study

The outcome of this study will help Toyota and Honda automakers further understand how loyalty to their brands is influenced by dealer after-sales loyalty, and the critical service attributes as perceived by the customer that contribute to satisfaction and loyalty to the dealer. As a result, these automakers may review their policies towards their representative dealerships to ensure that superior after-sales service quality is consistently delivered to the customer.

Service managers at Toyota and Honda dealerships may also benefit from the outcome of this study by better understanding the aspects of their service that are essential to customer satisfaction and loyalty. Service managers will be able to evaluate their present after-sales policies and strategies based on the levels of customer satisfaction and intended dealer aftersales loyalty. An overhaul of their after-sales service policies and strategies focused on improv ing those service quality dimensions may then be undertaken.

Other automakers may benefit as well from this research by gaining insights into how the different aspects of service quality in the car service industry result in customer satisfaction. This would help them assess their existing strategies in these dimensions and make the changes necessary to improve dealer after-sales loyalty and brand loyalty.

### 1.12 Definition of Terms

After-Sales Service: all the undertakings performed towards the goal of managing and sustaining the "quality and reliability" of the vehicle performed at the post-purchase stage aimed at achieving a satisfying experience for the customer (Ehin lanwo and Zairi, 1996).
Brand Loyalty: a strong commitment to consistently purchase a favourite product or service at some imminent date resulting in repeated purchases of the same brand or set of brands in spite of the impact of the situation and promotional attempts to affect a switch in buying practices (Oliver 1999).

Kindness: a "human or relational component" of the service delivery process embracing all the dimensions under SERVQUAL: reliability, assurance, assurance and empathy with the exception of tangibles.

Dealership: "a business established or operated under an authorization to sell or distribute a company's goods or services in a particular area" (http://www.thefreedictionary.com/)
Dealer After-Sales Loyalty: The regularity with which a customer comes in for vehicle maintenance, parts buying from the Parts Department and recommends family and friends to do the same.

Faith: a dimension of service quality in the car industry which covers the trust customers must have in the dealership because of the inscrutability of the processes that go into car servicing.

Passenger Car: a road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than seven persons including the driver (Department of Land Transport, 2001).
Perceived Service Quality: "The customer's assessment of the overall excellence or superiority of the service" (Zeithaml et. al. 1988).
Satisfaction: It is a judgement that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under-or over fulfilment (Oliver 1997).
Satisfaction with After-Sales Service: The customers' post- service evaluation of the dealer's after-sales service quality.
Service quality: 'a global judgement, or attitude, relating to the superiority of the service'
Tangibles: one of the service quality dimensions in the SERVQUAL instrument which covers the appearance of physical facilities, equipment and communication materials, that is, all that entails the physical evidence of the service (Zeithaml et. al., 2006).

## CHAPTER 2

## REVIEW OF RELATED LITERATURE REVIEW AND EMPIRICAL STUDIES

This chapter deals with the theories and related literature relevant to the conceptual model used in this research. The theories related to perceived service quality, satisfaction and loyalty are discussed first and other related literature explaining the relationship between variables are then examined. Lastly some previous studies which help to build the conceptual framework are reviewed.

### 2.1 Theories

In this section, the researcher examines the theories and models necessary to establish a conceptual framework.

### 2.1.1 Service

Decades of research into services have yielded a variety of definitions of the phenomenon.

The American Marketing Association (1960) defined service as activities, benefits, or satisfactions which are offered for sale or provided in connection with the sale of goods."

Lehtinen (1983) suggested that "a service is an activity or series of activities which take place in interaction with a contact person or a physical machine and which provides consumer satisfaction."

Kotler and Bloom (1984) proposed that "a service is an activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anyth ing. Its production may or may not be tied to a physical product."

A more recent definition provided by Kotler and Armstrong (2001) states that: "A service is an activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product.

Gronroos (1990) suggested that though some of these definitions and others had their benefits, they also had their drawbacks in that they were too limited. Gronroos thus suggested a comprehensive definition of service: "an activity or series of activities of more or less intangible nature that normally, but not necessarily take place in interaction between the customer and service employees and/or physical resources or goods and/or systems of the
service provider, which are provided as solutions to customer problems". Gronroos pointed out that most times, a service involves an interaction of some nature with the service firm. Situations do exist, though, where no interaction takes place between the customer and the service provider. An example would be a plumber attending to a drainage problem of a tenant in an apartment by accessing the room using the main keys of the apartment, in the absence of the tenant. Here, neither the plumber nor his system of operation has any contact with the customer. On the contrary, instances do exist where interactions do not appear to be apparent, but in reality do involve some interaction. As an example, the owner of a car being serviced at a garage does not interact with anyone or anything. Nevertheless, when the vehicle is received by the garage and subsequently handed over to the owner, there are interactions, which in reality are a part of the service. Additionally, these interactions may be paramount to the customer's perception of the garage. As a consequence, interactions do take place in services and are substantially important even though it may be oblivious to the interacting parties.


### 2.1.1 Characteristics of Services

There is a whole range of service characteristics put forth in the literature. The most often cited characteristics of services and physical goods are shown in Table 2.1

Table 2.1 Differences between Services and Physical Goods

| Physical Goods | Services |
| :---: | :---: |
| - Tangible | - Intangible |
| - Homogenous | - Heterogeneous |
| - Production and distribution separated from consumption | - Production and distribution and consumption simultaneous processes |
| - A thing | - An activity or process |
| - Core value produced in factory | - Core value produced in buyer-seller interactions |
| - Customers do not (normally) | - Customers participate in production |
| participate in the production process |  |
| - Can be kept in stock | Cannot be kept in stock |
| - Transfer of ownership | - No transfer of ownership |

Source: Gronroos, C. (1990). Service management and marketing: managing the moments of truth in service competition. Lexington, MA: Lexington Books.

Parasuraman, Zeithaml and Berry (1985) identified three characteristics of services from the literature: intangibility, heterogeneity, and inseparability. First, a large number of services are "intangible" (Bateson, 1977; Berry, 1980; Lovelock, 1981; Shostak, 1977), not having a physical form. Gronroos (1990) suggested that this aspect of service, its intangibility, may be the most frequently highlighted. Other services have highly tangible components. Examples include a meal in a restaurant, the paperwork used by a forwarding company, and the parts used by a service shop (Gronroos, 1990). Since services are performed and do not have a physical form, it is impossible to specify manufacturing guidelines as regards uniformity in quality. We cannot count, measure, keep in inventory, test and verify for quality prior to sale. Zeithaml, (1981) stated that, the intangibility of services makes it difficult for a firm to comprehend consumers' perception of the services being offered and appraise the quality of their service.

Second, services, particularly those which are labour intensive, are "heterogeneous", that is, their delivery tends to vary from one producer to the other, one customer to the other and also from one day to another (Parasuraman, Zeithaml and Berry, 1985). Gronroos (1990) reflected that heterogeneity of services is largely due to the influence of people, whether personnel or customers or both on the process by which the service is produced and delivered. Booms and Bitner (1981) pointed out that there is difficulty in assuring consistent behaviour of service personnel because there may be a disparity between the firm's intended performance and the actual service received by the customer.

Thirdly, the delivery and reception of services are "inseparable" (Carmen and Langeard, 1980; Gronroos, 1978; Regan, 1963; Upah, 1980), that is, their production and consumption is simultaneous (Gronroos, 1990). Consequently, quality in services is not produced in a factory and thereafter delivered wholly to the consumer. Managing quality control and marketing activities in a traditional manner is thus difficult as there is no quality produced ahead in order to control prior to sale of and consumption of the service. In services that have a high labour content, for example, quality takes place as the service is being delivered through an interchange between the customer and personnel of the service company (Lehtinen and Lehtinen, 1982). Also, where consumers participate intensely during the service (e.g. haircuts, doctor's visits), the service organization may be less able to exercise managerial control over the quality of service, as the customer impacts the performance. In these instances, the consumer's opinion (the haircut style preferred, symptoms suffered) critically impact the quality of the service delivered.

### 2.1.2 Service Quality

Quality is an often baffling and unclear concept, frequently confused with such vague descriptions as "goodness, or luxury, or shininess, or weight" (Crosby 1979). Indeed Takeuchi and Quelch (1983) observed that consumers often find it difficult to clearly express their opinions of quality and its specifications. Monroe and Krishnan (1983) also observed the difficulty researchers face in their quest to clarify and measure quality, and often use "self-report measures to" to conceptualize quality, rather than define it ((Jacoby, Olson, and Haddock 1973; McConnell 1968; Shapiro 1972).

Parasuraman et al., (1985) observed that attempts at the definition and measurement of quality have mostly come from the goods sector. Japanese philosophy maintains that quality is "zero defects-doing it right the first time." Crosby (1979) stated that quality is
adherence to specifications. Buzzell and Bradley (1987) stated that quality is what the customers say it is and a product's or service's quality is that which is perceived by the customer. Juran (1988) defined quality as 'fitness for use', while Eiglier and Langeard (1987) referred to it quality as "one that satisfies the customer".

Parasuraman et al., (1985) explained that the idea of quality that prevails in the goods sector does not pertain in the service sector due to the intangibility, heterogeneity and inseparability of services, which necessitate a separate model for clarifying and measuring quality.

Parasuraman, Zeithaml and Berry, (1988) defined service quality as 'a global judgement, or attitude, relating to the superiority of the service' clarifying it to involve the customers evaluation of the outcome (i.e., what the customer obtains from the service) and process of service act (i.e., the means by which the service is delivered). They suggested three themes regarding service quality: (1) Service quality is more difficult for the consumer to evaluate than goods quality. (2) Service quality perceptions result from a comparison of consumer expectations with actual service performance and (3) Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery.

It is generally agreed that service quality includes a comparison of the service expected with what is performed (Parasuraman et al., 1985). In line with this, Lewis and Booms (1983) stated that service quality is a measurement of the match between what the customer expects and the level of service actually delivered. To deliver quality service, service firms must conform to what the customer expects all the time. In the same vein, Gronroos (1982) expanded a model where he suggested that consumers compare their expectations of the service with how they perceive the service received in their evaluations of the quality of service.

### 2.1.3 Dimensions of Service Quality

Several researchers have proposed different dimensions of service quality which fundamentally indicate that services involve outcomes and processes. Sasser, Olsen, and Wyckoff (1978) proposed three distinct dimensions of service performance: "level of material, facilities and personnel." Implicit in this three dimensional concept of service quality is the idea that service quality encompasses not only outcome, but also the manner in which the service is delivered.

Gronroos (1990) determined that customers perceptions of the quality of a service comprises two dimensions: a "technical or outcome dimension" and a "functional" or "process-related dimension", that is, what is received by the customer (technical quality) and how the service is delivered to the customer (functional quality). The technical quality is that which the customer retains after the service performance and after the interchanges between the buyer and seller, which can often be measured objectively by customers (Gronroos, 1982). The functional quality of the service process refers to how the customer is influenced by the delivery procedure of the service. It also includes the customers experience as the service is produced and consumed simultaneously (Gronroos, 1990).

Lehtinen and Lehtinen (1982) used three quality dimensions to establish the premise that the production of service quality takes place through the interchange between the customer and the contact personnel of the service firm. These three dimensions of quality are: physical quality, which describes the physical parts of the service such as equipment in the building; corporate quality, which includes the image or profile of the company; and interactive quality, which involves the interactions that take place between customers and service personnel and also between customers. Additionally, they distinguished between quality related to the process and quality related to the results of the service.

### 2.1.4 The Gap Model of Service Quality

In order to understand the sources of quality problems and provide managers with a means of understanding how to improve quality, Parasuraman et al., (1985) and Zeithaml et al., (1988) developed a Gap-Analysis model, as Figure 2.1 shows, illustrating how service quality is achieved (Gronroos, 1990). The model indicates that four gaps can occur in a service firm as a result of inconsistent processes in managing quality. These "quality gaps" (Gronroos, 1990) influence the extent to which the consumer perceives quality in the organization. The eventual gap, which exists between the service levels expected and perceived, is a consequence of the preceding gaps which may have taken place in the performance (Gronroos, 1990).

Figure 2.1: Gap Model of Service Quality


Source: Zeithaml, B.A. and Bitner, M.J. (2003) Service Marketing: Integrating Customer Focus across the Firm. NY: McGraw-Hill.

This research focuses primarily on the perception component of expected-service-perceivedservice gap represented (Gap 5). Also known as the perceived service quality gap, it indicates a disparity between the consumer's perceptions of the service and his/her expectations of the service. The consumer's positive or negative evaluation of service quality depends on his/her perception of the service actually as experienced relative to his/her expectations.

### 2.1.5 Perceived Service Quality

The concept of perceived service quality has eluded definition by researchers (Churchill \& Surprenant, 1982; Oliver, 1980; Tse \& Wilton, 1988). Where it has been defined, there have been variances in its definition not surprisingly. Fornell et. al. (1996) defined perceived quality as 'formed from customization and reliability.' Here, customization is how effectively the company tailors its products to fulfil the manifold needs of a particular customer while reliability specifies 'how reliable, standardized and devoid of deficiencies a company's products is' (Chwo-Ming, 2005). Perceived quality has been defined in other research also as '...the customer's assessment of the overall excellence or superiority of the service' (Zeithaml, 1988). Parasuraman et. al., (1988) developed the concept of perceived service quality as a "global judgement, or attitude relating to the superiority of the service", noting that as a form of attitude, it is related to but not the same as satisfaction,

Gronroos (1990) noted that the quality process is more complicated than subjective perceptions of quality made by customers and that the judgement of whether quality is good, neutral or bad is not just determined by the experiences of the quality dimensions-technical and functional as he defined. He proposed the concept of total perceived quality, noting that good perceived quality is achieved when the "experienced quality" corresponds with what is expected by the customer, that is, the "expected quality". Total perceived quality, however, is not only determined by the degree of technical and functional quality dimensions. Rather, it is determined by the difference between the expected and experienced quality.

Parasuraman et al., (1988) concluded that when customers evaluate service quality, they differentiate between five dimensions of service quality as explained below:

- Reliability: this defines the ability of the service firm to perform the promised service dependably and accurately as well as consistently. This dimension also suggests that the service firm performs the desired service rightly the first time. Broadly, reliability means that the company fulfils its promises to customers. These may include promises about delivering particular services, solving problems and the price of its service offerings. Customers desire to conduct business with those companies that deliver on promises about service results and the central service features. Firms that do not provide the main service that customers perceive to be buying are directly failing their customers (Zeithaml et al., 2006).
- Responsiveness: this describes the willingness to help customers and provide prompt service, in other words, the timeliness of the service provided. Responsiveness means that the service firm is attentive and promptly deals with the requests, questions and complaints and from customers. Consumers judge responsiveness by how long they have to wait to be attended to when they need assistance, questions answered or problems attended to. Also captured in this dimension of responsiveness is the flexibility and customizability of the service to the needs of the customer. When customers have difficulty reaching the company by telephone, or accessing its website, these experiences diminish the perceptions of the firm's responsiveness.
- Assurance: this relates to how knowledgeable and courteous service personnel are, as well as their ability to communicate and also relates to trust and confidence. This
dimension plays an important role in services perceived to possess high risk, or those services where they do not trust their provider's judgements about the results, for example, banking, insurance, medical and legal services.
- Empathy: th is dimension specifies the caring, individualized attention which the firm provides for its customers. The essence of empathy is conveying, through personalized or customized service, that customers are unique and special and that their needs are understood.
- Tangibles: this covers the appearance of physical facilities, equipment and communication materials, that is, all that entails the physical evidence of the service. With tangibles, customers are provided a physical representation of the service which can be used as an evaluation of service quality. Hospitality services such as restaurants, hotels and entertainment companies emphasize tangibles in their service strategies (Zeithaml et. al., 2006).


### 2.1.6 SERVQUAL Instrument

Parasuraman, Zeithaml and Berry $(1985,1988)$ proposed a service quality measurement scale called SERVQUAL based on its operationalization of service quality as a difference between customers' expectations of "what they want" and their perceptions of "what they get." The SERVQUAL scale is based on the gap model proposed by Parasuraman et. al., (1985, 1988). The operationalization of service quality can be defined mathematically as follows:

$$
S Q_{i}=\sum_{j=1}^{\kappa k} P_{i j}-E_{i j}
$$

Where: $\mathrm{SQ}_{\mathrm{i}}=$ perceived service quality of individual ' i '
$\mathrm{k}=$ number of attributes / items
$P=$ perception of individual ' i ' with respect to performance of a service firm on attribute ' j '
$E=$ expectation if individual ' $i$ ' for attribute ' $j$ ' that is the relevant norm for individual ' i '

Rooted in disconfirmation paradigm, the gap model establishes that satisfaction is linked to the magnitude and inclination of disconfirmation of the experience of an individual as against their prior expectations (Churchill and Suprenant, 1982; Parasuraman, Zeithaml and Berry, 1985; Smith and Houston, 1982). The conceptualization of service quality as a gap between customer's 'perceptions' and 'expectations' views it as existing on a scale from ideal quality to 'totally unacceptable quality, with points on the scale representing satisfactory quality (Jain and Gupta, 2004). Parasuraman, Zeithaml and Berry (1988) maintained that less-than- satisfactory service quality occurs when the service, as perceived or experienced, lags behind the expected service. On the other hand, when perceived service lags behind expected service, service quality is obviously satisfactory. Parasuraman, Zeithaml and Berry (1988) held that a negative discrepancy between perceptions and expectations results in dissatis faction while a positive discrepancy ensures a delighted consumer.

The SERVQUAL instrument as conceived by Parasuraman et. al., (1988) consists of 22 items measuring service quality across the five dimensions of the service quality concept. The operationalization of service quality is as a gap between customer's expectations and perceptions and comprises measurement scales of 44 items with 22 items measuring perceptions and expectations each.

### 2.1.7 SERVPERF

Over time, a few variants of the SERVQUAL scale have been suggested as an alternative to the SERVQUAL instrument. One example is the "SERVPERF" scale developed by Cron in and Taylor (1992). In their research, Cronin and Taylor raised questions about the conceptualization of the SERVQUAL scale and observed it to be mixed up with service satisfaction. Suggesting that the expectation (E) component of SERVQUAL be dispensed with, leaving only the performance (P) component, they argued for the SERVPERF scale. As variation of the SERVQUAL instrument, the SERVPERF scale consists of only 22 items, integrating only the perceived performance dimension. A higher perception of performance connotes a higher quality of service. The SERVPERF scale can be expressed in equation form as:

$$
S Q_{i}=\sum_{j=1}^{k} P_{i j}
$$

Where: $\quad \mathrm{SQ}_{\mathrm{i}}=$ perceived service quality of individual ' i '
$\mathrm{k}=$ number of attributes / items
$\mathrm{P}=$ perception of individual ' i ' with respect to performance of a service firm on attribute ' j '
With regards to methodology, the SERVPERF scale is a significant improvement over the SERVQUAL scale. It has not only reduced the number of items measured by half, but provides empirical evidence of its superiority to the SERVQUAL scale as it is able to demonstrate sufficient difference in the summary measurement of service quality by using a scale with a single-item. It is for th is reason that the SERVPERF scale has been supported by several researchers (Babakus and Boller, 1992; Bolton and Drew, 1991b; Boulding et al., 1993; Churchill and Surprenant, 1982; Gotlieb, Grewal and Brown, 1994; Hartline and Ferrell, 1996; Mazis, Antola and Klippel, 1975; Woodruff, Cadotte and Jenkins, 1983). Zeithaml, one of the founders of the SERVQUAL scale, observed the superiority of the SERVPERF scale in a recent study, suggesting that "...our results are incompatible with both the one-dimensional view of expectations and the gap formation for service quality. Instead, we find that perceived quality is directly influenced only by perceptions of (performance)" (Boulding et al., 1993). This admission is a testimony to the superior nature of SERVPERF to SERVQUAL (Jain and Gupta, 2004).

### 2.1.8 Service Quality in the Car Service Industry

The importance of the SERVQUAL scale has led to its use in measuring service quality in a variety of service industries (Jain and Gupta, 2004). Bouman and van der Wiele (1992), however, modified the SERVQUAL scale to measure service quality in the Dutch car service industry incorporating features specific to the car industry. Their results suggest that in evaluating service quality in the car service industry, customers differentiate between three dimensions namely Customer Kindness, Tangibles and Faith. These dimensions, measured by a 40 -item instrument, do differ to a large extent from the five service quality dimensions. The factor Customer Kindness is viewed as the "human or relational component" of the service
delivery process and embraces all the dimensions under SERVQUAL with the exception of Tangibles. These four dimensions which are associated with the human performance component of service are viewed as one factor of car service customers. For clarity, customer kindness is referred to as "kindness" in this study.

The Tangibles factor correlates with the identical tangibles factor as determined by Berry, Parasuraman and Zeithaml, (1988).

The Faith factor in the car service quality conceptual model is not determined by Berry et al. (1988). It is a totally new dimension which respondents of the research by Bouman and van Wiele (1992) identified and is related to the fact that the processes that go into car servicing are inscrutable. Gronroos' (1990) "Reputation and Credibility" dimension, however, touches on some of the items of the faith dimension. Regarding "reputation and credibility", Gronroos suggested that customers agree that they can trust the offerings of the service provider, and that these offerings provide sufficient advantage for their money's worth. Additionally, customers believe that these operations represent good work and ideals which customers and service provider can identify with.

Bouman and van der Wiele (1992) suggested that customers evaluate service quality based on their perception of customer kindness, with tangibles and faith influencing service quality only through customer kindness.

### 2.2 Customer Satisfaction

On the surface, customer satisfaction may appear to be a simple concept. Its definition though has hardly remained constant, evolving over time to embrace new insights (Yu, Wu, Chiao and Tai, 2005). Having reviewed several studies, Oliver (1980) determined satisfaction to be a consequence of a prior benchmark which operates in connection with a prior perception gap from the initial point of reference. Clarifying this prior benchmark, Bolton and Drew (1991) concluded that customer satisfaction or dissatisfaction is a 'function of the disconfirmation arising from the discrepancies between prior expectations and actual performance.'

Hunt (1997) defined satisfaction as a customer's post purchase assessment of a product or service. A customer experiences satisfaction when a product performs better than expectations and dissatisfaction when expectations surpass performance. Tse and Wilton (1988) conceptualized customer satisfaction from a perception point of view that it is the consumer's response to the evaluation of the perceived discrepancy between prior
expectations (or some norm of performance) and the actual performance of the product as perceived after its consumption.

A fundamental inconsistency exists with regards to the definition of satisfaction as to whether it is a process or an outcome (Yi, 1990). To be precise, the definitions of consumer satisfaction have either underscored an assessment process (Fornell, 1992; Hunt, 1977; Oliver, 1981) or a reaction to an evaluation process (Halstead, Hartman and Schmidt 1994; Howard and Sheth, 1969; Oliver, 1997; 1981; Tse and Wilton, 1988; Westbrook and Reilly, 1983). The majority of definitions tend to prefer the idea of satisfaction as a response to an evaluation process. Specifically, there is a dominant perception of satisfaction as an overall idea (i.e. a fulfilment response (Oliver, 1997); affective response (Halstead et. al., 1994); overall evaluation (Fornell, 1992); psychological state (Howard et. al., 1969); global evaluative judgement (Westbrook, 1987); summary attribute phenomenon (Oliver, 1992); or as an evaluative response (Day, 1984)). Contrary to this theme of a summary concept, other researchers considered consumer satisfaction as either a cognitive response (Bolton and Drew, 1991; Howard and Sheth, 1969; Tse and Wilton, 1988) or an affective response (Cadotte, Woodruff and Jenkins, 1987; Halstead et. al., 1994; Westbrook and Reilly, 1983).

Three general components can be observed in the existing definitions: (a). consumer satisfaction is a response (emotional or cognitive); (b). the response pertains to a particular focus (expectations, product, consumption experience, etc.) and (c). the response occurs at a particular time (after consumption, after choice, based on accumulated experience, etc). As table 2.1 shows, they can be tabulated as follows:

Table 2.1: Summary of some concep fualizations of Customer Satisfaction

| Source | Conceptual <br> Definition | Response | Focus | Time |
| :---: | :---: | :---: | :---: | :---: |
| Oliver, 1997 | The consumer's fulfilment response. It is a judgement that a product or service feature, or the product or service itself, provided (or is | Fulfilment response/judgement | Product or Service | During Consumption |


|  | providing) a <br> pleasurable level of <br> consumption-related  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| fulfilment, including |  |  |  |
| levels of under-or over |  |  |  |
| fulfilment |  |  |  |


| Source | Conceptual Definition | Response | Focus | Time |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { Mano and } \\ & \text { Oliver, } 1993 \end{aligned}$ | (Product Satisfaction) is an attitude-like postconsumption evaluative judgment (Hunt 1977) varying along the hedonic continuum (Oliver 1989; Westbrook and Oliver 1991) | Attitude-evaluative judgment/ varying along hedonic continuum | Product | Postconsumption |
| Fornell, 1992 | An overall postpurchase evaluation | Overall evaluation <br> CE 1969 <br> ลัยอัสลัม | Post-purchase perceived <br> product <br> performance <br> compared with <br> pre-purchase <br> expectations | Post-purch ase |
| Oliver, 1992 | Examined whether satisfaction was an emotion and concluded that it is a summary attribute phenomenon coexisting with other consumption emotions | Summary attribute phenomenon coexisting with other consumption emotions | Product attributes | During consumption |

$\left.\begin{array}{|l|l|l|l|l|}\hline \text { Westbrook and } & \text { A } \quad \text { post-choice } & \text { Evaluative } & \text { Specific } \\ \text { Oliver, 1991 } & \begin{array}{l}\text { evaluative judgment } \\ \text { concerning a specific } \\ \text { purchase selection }\end{array} & \text { judgment } & \text { Post-choice } \\ \text { selection }\end{array}\right]$

| Source | Conceptual <br> Definition | Response | Focus | Time |
| :---: | :---: | :---: | :---: | :---: |
| Tse and Wilton, 1988 | The consumer's response to the evaluation of the perceived discrepancy between expectations (or some norm of performance) and the actual performance of the product as perceived after its consumption (p. 204) | Response to the evaluation | Perceived discrepancy between prior expectations and the actual performance | Postconsumption |
| Day, 1984 | The evaluative response to the current consumption event...the consumer's response in a particular consumption experience to the evaluation of the perceived discrepancy between prior expectations (or some other norm of performance) and the | Evaluative response | Perceived <br> discrepancy <br> between prior <br> expectations <br> and actual <br> performance | Current consumption event...after acquisition |


|  | actual performance of <br> the product perceived <br> after its acquisition (p. <br> $496)$ |  |  |
| :--- | :--- | :--- | :--- |


| Source | Conceptual <br> Definition | Response | Focus | Time |
| :---: | :---: | :---: | :---: | :---: |
| Westbrook and Reily, 1983 | An emotional response to the experiences provided by and associated with particular products or services purchase, retail outlets, or even molar patterns of behaviour, such as shopping and buyer behaviour, as well as the overall marketplace (p. 256). An emotional response triggered by a cognitive evaluative process in which the perceptions of (or beliefs about) an object, action, or condition are compared to one's values (or needs, wants, desires) (p.258) | Emotional response | Experiences <br> provided by and associated with products or services purchased | Post-purch ase |
| LaBarbera and | Post-purch ase | Evaluation | Surprise | Post-purch ase |


| Mazursky, | evaluation. Cited <br> 1983 Oliver's <br> definition: $(1981)$ <br> evaluation of <br> An the |  |  |
| :--- | :--- | ---: | ---: | :--- | :--- |
| surprise inherent in a |  |  |  |
| product | acquisition |  |  |
| and/orconsumption |  |  |  |
| experience (p. 394) |  |  |  |


| Source | Conceptual <br> Definition | Response | Focus | Time |
| :---: | :---: | :---: | :---: | :---: |
| Churchill and Suprenant, $1982$ | Conceptually, outcome of purchase and use resulting from the buyer's comparison of the rewards and costs of the purchase relative to anticipated consequences. <br> Operationally, similar to attitude in that it can be assessed as a summation satisfactions with various attributes (p. 493) | Outcome ลัยอัลสมม <br> CE1969 | Comparison of the rewards and costs of the purchase relative to anticipated consequences | $\begin{array}{lr}\text { Implies } & \text { after } \\ \text { purchase } & \text { and }\end{array}$ use |
| Oliver, 1981 | An evaluation of the surprise inherent in a product acquisition and/or consumption experience. In essence, the summary | Evaluation, Psychological state | Surprise <br> Disconfirmed <br> expectations <br> coupled with the consumer's prior feelings | Product acquisition and/or consumption experience |


|  | psychological state <br> resulting when the <br> emotion surrounding <br> disconfirmed <br> expectations is coupled <br> with the consumer's <br> prior feelings about the <br> consumption <br> experience (p.27) |  |  |
| :--- | :--- | :--- | :--- |


| Source | Conceptual <br> Definition | Response |  | Time |
| :---: | :---: | :---: | :---: | :---: |
| Swan, Trawick <br> and Carrol, 1980 | A conscious evaluation or cognitive judgment that the product has performed relatively well or poorly or that the product was suitable or unsuitable for its use/purpose. Another dimension of satisfaction involves affect of feelings toward the product (p.27) | Conscious evaluation, cognitive judgment, Affect of feelings | Performance of product, its suitability or unsuitability | During or after consumption |

The customer satisfaction literature offers two distinct conceptualizations: transactionspecific and cumulative (Boulding et al., 1993). The transaction-specific concept holds that customer satisfaction is a result of the customer's judgmental appraisal of a particular buying instance after the purchase decision (Hunt, 1977; Oliver, 1977; 1980). On the other hand, cumulative customer satisfaction is a summary appraisal based on the totality of the buying and usage encounter with a good or service over a period of time (Fornell, 1992; Johnson and Forell, 1991).

### 2.2.1 Transaction-Specific Satisfaction and Ove rall Satisfaction

Bitner and Hubbert (1994) determined that consumers distinguish two concepts of satisfaction: transaction-specific satisfaction and overall satisfaction. They defined transaction-specific satisfaction as the consumer's satisfaction or dissatisfaction with a discrete service encounter" and overall satisfaction as "the consumer's overall satisfaction or dissatisfaction with the organization based on all encounters and experiences with that particular organization". When consumers are asked about transaction-specific satisfaction, they will probably make reference to a specific instance of a service encounter (e.g. an employee's reception). On the other hand, they will likely make comments on their summary views and wide ranging encounters with the firm (e.g. integrity of the firm)

As overall satisfaction takes into consideration input from previous service en counters with the firm, it can seen as a consequence of all prior transaction-specific satisfactions (Parasuraman et al.1994; Teas, 1993). Overall satisfaction may be due to several interactions and depends on the frequency with which the consumer patronizes a provider's services. Essentially, overall satisfaction is a summation of the prior transaction-specific which consumers factor into their overall perceptions after each particular encounter, in much the same way as perceptions of total service quality are factored in after each encounter (Boulding et al., 1993). Generally, there may not be a perfect correlation between transactionspecific satisfaction and overall satisfaction due to the variance in the quality of service from one encounter to the other, resulting in differing levels of transaction-specific satisfaction (Jones and Suh, 2000). Overall satisfaction, however, can be seen as a moving average which is somewhat stable, sharing similarity with overall attitude (Parasuraman et al., 1994). For example, a consumer's lost baggage may cause dissatisfaction - a low transaction-specific satisfaction - but will be pleased with the airline-overall satisfaction-because of several prior satisfied experiences (Jones and Suh, 2000).

### 2.2.2 Customer Satisfaction as a function of Perception

Researchers who have employed other approaches to measure satisfaction have questioned the validity of the disconfirmation model. An example is Goode and Moutinho (1995) who commented that the expectations disconfirmations model has received criticism recently and consequently models apart from expectations have been proposed. Teas (1994) particularly disputes that the myriad explanations and the consequent challenges in operationalizing how it is measured diminish the credibility of models that integrate
expectations. A different outlook which is increasingly being accepted is the dependence of satisfaction chiefly on the service performance as perceived by the customer instead of on the expectation and perception disconfirmation (Cronin and Taylor, 1994; Teas, 1993). This is expressed as:

$$
\text { Satisfaction }=f \text { (perception) }
$$

Perception here refers to how the customer perceives the actual delivery of service, suggesting that there is a difference between perception and actual performance observed objectively.

### 2.2.3 Outcomes of Satis faction/Dissatisfaction

The literature on the consequences of satisfaction/dissatisfaction is scant and the few studies that have researched this area have found out the following to be outcomes of satisfaction: complaining behaviour, negative word of mouth (WOM), and repurchase intentions (Szymanski and Hernard, 2001).

- Complaining behaviour: The propensity of consumers to lodge complaints in expression of their dissatisfaction with the consumption experience has been determined to be a means of letting out anger and displeasure as well an avenue for receiving compensation for a failed consumption experience (Oliver, 1987; Nyer, 1999). Consumers have the choice of abandonment or loyalty in the event of an unsatisfactory experience (Andreasen, 1988; Day, 1984; Hirschman, 1970). However, increased dissatisfaction is normally thought to elicit complaining behaviour particularly when the cause of dissatisfaction is grave, when the blame can be attributed to the retailer or manufacturer, and when there is a significant chance of receiving compensation (Folkes, 1984; Richins, 1983; Ursic, 1985). Put differently, there will be increased complaints about unsatisfactory experiences, in the presence of incentives to lodge a complaints and chances of victory (Szymanski and Hernard, 2001).
- Negative Word of Mouth (WOM): When an experience is unsatisfactory, consumers can engage in negative word of mouth, a type of complaining behaviour, to other consumers. This is particularly the case when the cause of dissatisfaction is acute, can be externally attributed or when the disgruntled consumer is characterized by high levels of social activity (Folkes, 1984; Richins, 1983). Engaging in negative WOMgives consumers the chance to ease their frustrations, seek revenge of the entity
by making others aware of their disappointments, assume authority over an agonizing condition, secure condolences from colleagues and make known the high expectations of the consumer (Nyer, 1999).
- Repeat Purchasing: Satisfaction is perceived to result in consumers patronizing the service or product again. Oliver (1997) discussed loyalty as a consequence of satisfaction and proposed three stages of satisfaction - cognitive, affective and conative -that climax in action loyalty.


### 2.3 Customer Loyalty

The formulation of the loyalty model has seen a lot of evolutions through the years. Initially, loyalty research focused on brand loyalty as pertaining to tangible goods (Cunningham, 1956; Day, 1969; Kostecki, 1994; Tucker, 1964). Cunningham (1956), for example, concluded that brand loyalty is the "the proportion of purchases of a household devoted to the brand it purchased most often". In spite of most of the loyalty literature focusing on tangible goods, the theory of loyalty can be applied to industrial goods (vendor loyalty), services (service loyalty), and retail establishments (store loyalty) (Dick and Basu, 1994).

At a fundamental level, loyalty is something that consumers may display toward brands, services, stores, product categories (e.g. cigarettes), and activities (e.g. swimming). The term customer loyalty is preferred to brand loyalty, in order to highlight the fact that loyalty is a customer trait, rather than an attribute of brands (Uncles, Dowling and Hammond, 2003).

In the literature, a majority of the research has centred largely on the behavioural component of loyalty. Tucker (1964), for example, concluded that "no consideration should be given to what the subject thinks nor what goes on in his central nervous system, his behaviour is the full statement of what brand loyalty is." Jacoby (1971) confirmed that previous studies have overlooked what transpired in the customer's minds, looking only at the behavioural responses. In measuring brand loyalty in terms of its outcome attributes, three items are to be considered: the sequence of purchase (Brown, 1952, 1953; Lawrence, 1969; McConnell, 1968; Tucker, 1964); the proportion of purchase apportioned to a particular brand (Cunningham, 1956) and the likelihood of acquisition (Frank, 1962; Maffei, 1960).

Day (1969) contended that brand loyalty is more than frequently purchasing the same brand. It is also an attitudinal concept. In line with this, Jacoby $(1969 ; 1971)$ conceptualized
loyalty to include a behavioural and attitudinal element. The behavioural component measures the frequency of acquisition of a particular brand whereas the attitudinal component is measured by a distinct scale (Day, 1969). Jacoby and Chestnut (1978) incorporated the behavioural and attitudinal components of loyalty, when they defined it as a (1) biased (i.e. non random), (2) behavioural response (i.e. acquisition), (3) expressed over time, (4) by some decision making unit, (5) with respect to one or more brands out of a set of such brands, and is a function of psychological processes.

In more recent studies, another aspect of loyalty that has emerged is cognitive loyalty, which refers to the procedure by which consumers consciously evaluate different brands before the acquisition is made (Caruana, 2002).

### 2.3.1 Conceptualizations of Loyalty

Three popular conceptualizations of loyalty persist in the literature:
a) loyalty as primarily an attitude that sometimes leads to a relationship with the brand (Model 1);
b) loyalty mainly expressed in terms of revealed behaviour (i.e., the pattern of past purchases) (Model 2) ;and
c) buying moderated by the individual's character istics, circumstances, and/or the purchase situation (Model 3) (Uncles, Dowling and Hammond, 2003).

Figure 2.2: Conceptualizations of Loyalty
Model 1


Model 2


Model 3


Source: Uncles, M.D., Dowling, G.R., and Hammond, K. (2003), Customer loyalty and customer loyalty programs, Journal of Consumer Marketing, Vol. 20, No. 4, pp. 294-316
(a). Loyalty as primarily an attitude that sometimes leads to a relationship with the brand (Model 1)

It is generally agreed that for true loyalty to persist, a substantial "attitudinal commitment" must exist (Day, 1969; Jacoby and Chestnut, 1978; Foxall and Goldsmith, 1994; Mellens et al., 1996; Reichheld, 1996). This takes the form of consistent opinions in favour of the brand acquired. The extent to which people prefer a brand, are attached to it, prescribe it to others, and hold favourable opinions and affections about it compared to other brands are measures of these attitudes. How strong these attitudes are will significantly indicate how much people patronize the brand repeatedly. Based on this concept, Oliver (1997) defined loyalty as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing despite situational influences and marketing efforts having the potential to cause switching behaviour".

The "attitudes define loyalty" outlook can be extended to include the fact that consumers form affiliations with some of their brands. An example of this outlook is Fournier's (1998) view of loyalty as a committed and affect-laden association between consumers and brands. The strength of this association will be deeper in the presence of support from a family or purchasing unit and where use of the brand is linked with being a member of a society or status. A typical case is that of Harley-Davidson bikers (Schouten and McAlexander, 1995).

The soundness of the "attitudes drive behaviour" and "relationship" outlook to comprehend customer loyalty has, however, not prevented researchers from criticizing it. It is thought that these approaches cannot be applied to understand the purchase of items of low risk, brands bought often, or in instances of buying impulsively or scouting for alternatives, than for significant or risk-laden decisions.

## (b). Loyalty mainly expressed in terms of revealed behaviour (Model 2)

In this model, loyalty is defined primarily with regard to the type of previous acquisitions. It views the factors that motivate consumers or make them committed to a brand as secondary (Ehrenberg, 1988; Fader and Hardie, 1996; Kahn et al., 1988; Massy et al., 1970). The literature about these patterns of acquisition has determined that few consumers are "monogamous" (100 percent loyal) or "promiscuous" (no loyalty to any brand). Instead, most consumers are "polygamous" (i.e., loyal to a set of brands in a product group). In the same vein, Ehrenberg and Scriven, (1999) defined loyalty as a continuing tendency to purchase the brand normally out of a variety.

Loyalty is thus inferred to operate as follows: by trial and error, a brand that supplies a satisfying encounter is selected. As a result of satisfaction experienced repeatedly, loyalty towards the brand develops which evolves into feeble dedication to the brand; the consumer purchases same brand another time not as a result of any deeply held attitude or dedication, but because searching for another brand is worthless; and if the preferred brand is not stocked or is not available for some reason or other, another brand similar in function from the group will be bought (e.g. East, 1997; Ehrenberg et al., 1997; Ehrenberg et. al., 2003).
(c). Buying moderated by the individual's characteristics, circumstances, and/or the purchase situation (Model 3)

Advocates of Model 3, the contingency approach, contend that the most appropriate supposition of loyalty is one that allows the contingency factors such as the person's present situation, their attributes, and/or buying instance at hand, to moderate the association attitude and behaviour. In essence, deeply held attitudes toward a brand may be a weak indicator of the likelihood of the brand being bought the next time, as a variety of factors will play a part in determining the desirability of any one or more brands (Belk, 1974, 1975; Blackwell et. al., 1999; Fazio and Zanna, 1981). The person's present situation can refer to budgetary concerns (the preferred brand being too costly) and time constraints (e.g. the urgency to acquire the brand in the group at the next chance). Personal attributes include the desire for alternatives, disposition, the need to fit in, and risk appetite. Buy ing instance at hand describes whether or not the product is available, the promotional events organized and the specific usage situation (e.g. gifts or individual use) (Uncles, Dowling and Hammond, 2003).

### 2.3.2 Loyalty Phases

Although Oliver's (1997) conceptual framework is in line with the cognition-affectconation sequence, it is contended that consumers can become "loyal" at each attitudinal phase with regard to the distinct components of the attitude evolution framework. Particularly, consumer's are perceived to become loyal firstly in a cognitive manner, then in an affective way, and subsequently, in a conative sense, and yet later in a behavioural approach referred to as "action inertia".

Oliver (1999) postulated four phases of loyalty:
i. Cognitive Loyalty: In this primary phase of loyalty, the features of the brand at the disposal of the consumer signify that a particular brand is preferred to other varieties. The loyalty occurring here is referred to as cognitive loyalty, or that type of loyalty founded solely on trust in the brand. Cognition can be based on previous secondary knowledge or on intelligence gathered from prior en counters. At this stage, loyalty is expressed in favour of the brand on account of this intelligence gained (i.e. attribute performance levels). The loyalty the consumer feels here lacks depth, however. In the cases where the undertaking is habitual, such that satisfaction is not evaluated (e.g. garbage collection, utility supply), the strength of loyalty does not go beyond what is
actually performed. Where satisfaction is evaluated, it is factored into the consumer's experience and assumes an affective nature.
ii. Affective Loyalty: In the second phase of the evolution of loyalty, an affinity for the brand has developed as a result of a cumulative satisfaction experienced from the brand's patronage. The allegiance at this state is that of affective loyalty and is registered in the consumer's memory as cognition and affect. It is possible to argue out cognition. Affection, however, is not displaced with ease. The brand loyalty displayed is aimed at the level of affect (affinity) in favour of the brand. Just as with cognitive loyalty, this phase of loyalty is susceptible to change. Empirical evidence exists to prove that large numbers of consumers who have switched brands have had prior satisfactory experiences with a desired brand. Therefore, it would be preferred that consumers were more committed loyally on a deeper dimension.
iii. Conative Loyalty: The subsequent phase in the growth of loyalty is the conative (behavioural intention) phase, as a result of successive instances of positive affect in favour of the brand. Implicit in the definition of conation is the dedication to rebuy a specific brand. Conative loyalty, therefore, is that phase of loyalty which initially suggests a strong dedication to buy, reflected in the loyalty definition. But, this dedication is more to the will to repurchase the brand and is similar to inspiration. Thus, the desire of the consumer to rebuy, similar to and well meaning motives may be expected but not actualized.
iv. Action Loyalty: This refers to the means whereby motives are translated into actions, and is known as "action control" (Kuhl and Beckmann, 1985). In this process, the inspired intent in the prior loyalty stage is converted into willingness to carry out the intentions. The action-control theory suggests that they may be an accompanied added motivation to surmount and hindrances to carrying out the act. Action is seen to be a compulsory effect of combining these two phases. When these two phases are repeatedly engaged, action inertia grows and facilitates repurchasing.

The four phases of loyalty each have their vulnerabilities, as detailed in Table 2.2.

Table 2.2: Summary of Loyalty Phases with corresponding Vulnerabilities

| Stage | Identifying Marker | Vulne rabilities |
| :---: | :---: | :---: |
| Cognitive | Loyalty to information such as price, features and so forth | Actual or imagined better competitive features or price through communication (e.g. advertising) and vicarious or personal experience. <br> Deterioration in brand features or price. Variety seeking and voluntary trial. |
| Affective | Loyalty to a liking: "I buy it because I like it" | Cognitively induced dissatisfaction. Enhanced liking for competitive brands perhaps conveyed through imagery and association. Variety seeking and voluntary trial. Deteriorating performance |
| Conative | Loyalty to an intention: "I am committed to buying it" SINCE1969 | Persuasive counterargumentative competitive messages. Induced trial (e.g., coupons, sampling, point-of-purchase promotions). Deteriorating performance. |
| Action | Loyalty to action inertia, coupled with the overcoming obstacles. | Induced unavailability (e.g. <br> stocklifts-purchasing the <br> entire inventory of a <br> competitor's product (from a  <br> merchant). Increased <br> obstacles generally. <br> Deteriorating performance  |

Source: Oliver Richard (1999), "Whence Consumer Loyalty?", Journal of Marketing, Chicago. Vol. 63, Special Issue, p 36

### 2.4 Related literature reviews

### 2.4.1 Relationship between Perceived Service Quality and Satisfaction

It has been the tradition to equate the models of perceived service quality and satisfaction (Saha and Theingi, 2009). For example, Howard et al., (1969) in measuring satisfaction used measures having roots in the five dimensions of service quality as determined by Parasuraman et al., (1988). In line with the expectancy-disconfirmation which served as the foundation for the SERVQUAL model, service quality was determined to be the "gap" between expectation and perception (Parasuraman et. al., 1988), and customer satisfaction was comprehended in terms of achieving or surpassing these expectations (Oliver 1980). Parasuraman et al., (1988) conceptualized perceived service quality as a summary assessment of a service, and satisfaction as an assessment limited to a specific transaction. Against the backdrop of these conceptualizations, they determined that as time goes by, instances of satisfaction culminate in perceptions of service quality. Bitner (1990) developed a model of service encounter evaluation and empirically supported the effect of satisfaction on service quality.

Contrary to the tradition that equates the two models, another school of thought argues that perceived service quality and customer satisfaction have a distinct nature. It maintains that perceived service quality is assessed by the specific outcomes of the service in relation to the unique service dimensions in the particular setting. On the other hand, customer satisfaction is evaluated by the customer's summary service encounter (Oliver 1993). Customer satisfaction therefore is dependent on a myriad of constituents, which include perceived service quality, the disposition of the customer, sentiments, interpersonal encounters and other factors from the individual perspective which are associated with the experience (Rust and Oliver, 1994).

Generally, academics have come to a consensus on the distinct aspects and explication of perceived service quality and customer satisfaction. However, differences of opinion still persist about their interrelationship. In this vein, two schools of thought prevail. One group of researchers (Bitner, 1990; Bolton and Drew, 1991) holds that customer satisfaction is a precedent of perceived service quality. Their argument is that satisfaction intermediates the attributes of expectations of service and the customers' assessments of service. On the other hand, some academics have suggested a reciprocatory relationship (Oliver, 1997; Cronin and Taylor, 1992; Parasuraman et al., 1988). In line with this
perception, service quality is seen as a subconscious assessment of each service encounter and customer satisfaction is the cumulative influence on how customers appraise the services. Support for the precedence of service quality over customer satisfaction was confirmed by Brady and Robertson (2001) in their study of the fast food industry in the USA and a Latin American country (Saha and Teingi, 2009).

### 2.4.2 Relationship between Customer Satisfaction and Loyalty

Oftentimes, satisfaction is seen as likely to predict the consumer's acquisitions in the future (Newman and Werbel, 1973; Kasper, 1988). Satisfied customers are more likely to indulge in repeat purchases eventually (Zeithaml et. al., 1996), introduce others to patronize the source of satisfaction (Reynolds and Arnold, 2000; Reynolds and Beatty, 1999), and become unreceptive to the products and services of competitors (Fitzell, 1998).

Particularly, satisfaction is envisaged to be an antecedent of customer loyalty (Fitzell, 1998; Fornell 1992; Reynolds and Beatty, 1999; Sivadas and Baker-Prewitt, 2000; Zeithaml et. al., 1996). Much of the literature acknowledges the strong relationship between satisfaction and loyalty (Anderson and Sullivan, 1993; Fornell, 1992; Rust and Zahorik, 1993; Taylor and Baker, 1994). However, some studies view the relationship as reciprocal (Hallowell, 1996; Oliver 1999) and some others as taking place in one direction only, that is, from satisfaction to loyalty alone (Strauss and Neuhauss, 1997). Satisfied customers often become loyal customers through the influence (Rowley, 2005) or non-influence of mediating additional elements (Coyne, 1989; Fornell, 1992; Oliva et. al., 1992)

Oliver (1999) in his study on loyalty observed the imprecise specification of the relationship between satisfaction and loyalty, and identified six of the various possible relationships between satisfaction and loyalty as shown in the panels in Figure 2.1. The first panel high lights the fundamental notion that satisfaction and loyalty are distinct expressions of the same concept, similar to the earlier assumption of quality and satisfaction as identical similar constructs. Panel 2 entertains the suggestion that satisfaction is a central theme for loyalty, apart from which loyalty ceases to occur, and that it is a foundation of loyalty. Panel 3 eases the core concept of satisfaction to loyalty, and entertains satisfaction rather as one of the element of loyalty. Panel 4 puts forth the higher order nature of ultimate loyalty with satisfaction and "simple "loyalty as factors. Panel 5 supports the preceding hypothesis that there is some element of satisfaction in loyalty, but that it is not essential to the very nature of
loyalty. Lastly, Panel 6 proposes that satisfaction moves from one level to another, culminating in a separate phase of loyalty. This supposes that loyalty may turn out to exist apart from satisfaction, so that where there is no satisfaction there is no effect on the state of loyalty.

Figure 2.1: Six Representations of Satisfaction and Loyalty


Source: Oliver Richard L. (1999): Whence Consumer Loyalty, Journal of Marketing, Vol. 63 Special Issue 1999, pp. 33-34

The evidence obtained from Oliver's (1999) study, reveals the following: the dismissal of Panel 1 supposes satisfaction and loyalty to be two expressions of the same
concept. Oliver's (1997) definition of loyalty, among others, distinguishes these two concepts. Whereas satisfaction is a rather temporary feeling after a single usage encounter or the repeat experience of a continuous usage that indicates the fulfilment of the product's or service's function, loyalty is a realized phase where the consumer develops a strong affinity even to defensive proportions.

The propositions of Panel 2 and 3, that satisfaction is necessary for the realization of loyalty, are tenable. Satisfaction may not be a central component of loyalty, especially where loyalty has been developed, but plays a part in the establishment of loyalty.

Instances can be sighted where satisfaction occurs without loyalty (a meal which is satisfying) and loyalty occurs without satisfaction (patriotism to one's country whether right or wrong). In this regard, Panel 5 holds true, as it reflects the overlap existing between satisfaction and loyalty, albeit to a small degree. Nonetheless, on the independent existence of satisfaction and loyalty for the instances described, Panel 5 fails.

The perception of ultimate loyalty as a higher order form, as suggested by Panel 4 is credible. The attitude concept of loyalty suggests four types of lesser loyalty-cognitive, affective, conative, and action-which are alternatives of loyalty. Ultimate loyalty does not evolve until there is strong resolution.

The proposal of Panel 6, where satisfaction evolves into loyalty similarly to the transformation of a caterpillar into a butterfly is indeed a farfetched position, as it proposes the impossibility of loyalty to be reduced to simple satisfaction. Oliva, Oliver and MacMillan (1992) provided empirical evidence that suggests that loyalty can turn into dissatisfaction in the event where several unsatisfying encounters occur. However, situations where loyalty turns into positive satisfaction and the consumer is less defensive of competitors' overtures have not been evidenced.

### 2.4.3 Relationship between Perceived Service Quality, Customer Satisfaction and Loyalty

Studies have been conducted to test the relationship between quality, satisfaction and intention-based loyalty (Dabholkar et. al., 2000; Gotlieb et al., 1994; Taylor and Baker 1994) with the assumption that these concepts are related positively but varying between products, industries, and situations (Fornell, Johnson, Anderson, Cha, and Bryang, 1996; Johnson et. al., 2001). The relationship between satisfaction and loyalty is thought to be weaker than the one between quality and satisfaction (Cronin et al., 2000). The interrelationship between
quality performance and loyalty is perceived to be lower than that between satisfaction and loyalty since satisfaction intermediates the quality loyalty relationship (Dabholkar et. al., 2000).

Darsono and Junaedi (2006) determined that consumers create their attitudes towards the outcomes of products and brands by understanding the various attributes of the objects and by assimilating these into further general assessments. This affective appraisal (satisfaction) is used as a motivation to compare choices and influence final decisions and loyalty. This mechanism, called the "belief comparison model" implies the moderating role of satisfaction in the perceived quality-loyalty association which corroborates Dabholkar's (2000) conclusion of satisfaction as an intermediary of perceived quality and loyalty.

Dabholkar (1994) reported that consumers tend to compare attributes when other choices are available. Laroche et al., (1994) also discovered that consumers draw comparisons when in the formation of affections toward brands. Darsono and Junaedi (2006) supported these positions, saying that the perceived quality-satisfaction-loyalty relationship grows in strength when perceived quality and satisfaction are measured by comparative evaluation.

### 2.5 Previous Studies

Chwo-Ming, Lei-You, Yu-Ching and Hsing-Shia (2005) studied "Perceived quality, customer satisfaction, and customer loyalty: the case of Lexus in Taiwan" in order to understand the overall customer satisfaction with regard to Toyota's Lexus vehicles in Taiwan employing the customer satisfaction index (CSI) model developed by Fornell et al (1996). In their research they obtained responses from 320 individual Lexus owners who had purchased a Lexus and had been using it for more than 7 months. Additionally, the study employed the structural equation model with LISREL software to show that perceived quality has a direct influence on the total customer satisfaction, but an indirect relation to customer complaint-levels and customer loyalty. From their analysis, it was determined firstly, that perceived quality is the only construct that has a positive and direct relation to overall customer satisfaction. Consequently, an increase in the level of perceived quality effects an increase in overall customer satisfaction. Secondly, customers’ expectations positively influence overall customer satisfaction, albeit indirectly through the perception of quality. Thus, an increase in the level of customer expectations increases the level of perceived quality which subsequently increases the level of overall customer satisfaction. Thirdly,
varying levels of overall customer satisfaction significantly have a positive relationship to customer loyalty. This implies that an escalation in overall levels of customer satisfaction results in an improvement in levels of customer loyalty.

Mai (2005) researched "A comparative study between UK and USA: the student satisfaction in higher education and its influential factors" to investigate the presence of any significant differences in the levels of satisfaction between UK and US students and to determine the factors that influence students' satisfaction level. The researcher obtained responses from 322 business school students, 184 UK students from 11 universities and 148 US students from 12 universities. Their research framework was based on SERVQUAL, which suggests that consumers perceive service quality based on their comparisons of their expectations ahead of receiving the service and their experience of the service. The researcher employed $t$-tests to examine if there were any differences in the education services in the UK and US. A multiple linear regression analysis was used to examine the relationship between the dependent variable, overall satisfaction and 19 independent perception variables. Results of the data analysis revealed that there were significant differences in the education services of the UK and US as perceived by the students, with US students expressing higher levels of satisfaction compared with UK students. The study found two variables which significantly predicted 'overall satisfaction of the education' more than other service dimensions: 'overall impression of the school' and 'overall impression of the quality of education'. Stated differently, these were the two most influential variables of the satisfaction of students.

Wang and Lo (2002) studied "Service Quality, customer satisfaction and behaviour intention: Evidence from China's telecommunication industry" in order to build a comprehensively integrated framework of these individual constructs, and identify which ones are the most important factors in the Chinese mobile phone industry. In their research, which employed the SERVQUAL model, they conceptualized the service quality factors as antecedents to customers' total assessment rather than components of the service quality model. Additionally, they researched the interrelationship between the components and how they distinctly influence customer value, and the eventual behavioural intentions of customers. Data for the research was obtained through a face-to-face customer survey of a convenient sample of 200 randomly selected customers in two of China's big cities Tianjin and Beijing, and analysed them using the partial least squares (PLS) method and bases variance analysis method. The analysis revealed that for China's mobile phone industry, network quality and empathy were the two most significant determinants of overall service
quality, while tangibles, assurance and reliability subsequently influenced overall service quality subsequently. Additionally, network quality, empathy and tangibles were found to have significant influence on customer value in China's mobile phone market, with network quality and empathy being the most important determinants. Reliability, responsiveness and assurance do not influence customer value, according to the evidence. No relationship was found between empathy and customer satisfaction while a significant influence of reliability, assurance, tangibles, network quality and customer value on satisfaction was shown. As to customer satisfaction and customer value, value has a greater influence on behaviour intentions than does satisfaction. Two mobile phone companies with large investments to improve network quality by China's corroborate the evidence of the significant role network quality plays in customers' assessment of overall service quality, customer value and customer satisfaction.

Torres-Moraga, Vasquez-Parraga and Zamora-Gonzalez (2008), researched "Customer Satisfaction and Loyalty: start with the product, culminate with the brand" employing a $3 \times 2$ research design of 1,223 respondents. This research studied customer loyalty with respect to three different adoption stages: (1) product alone, when consumer assessment takes place initially, (2) brand alone, where consumers prefer a particular brand for a variety of products, (3) product-brand, and the transitional level where choice of a distinct product is from a small group of brands. Three groups of respondents were chosen for their choice of product, brand or product-brand while two other groups were chosen for their choice of either innovative (electronic goods) or traditional products (wine). The findings determined that customer satisfaction and loyalty were positively and significantly related in all three adoption stages. Also, this relationship was greater for brand adoption than product adoption. Additionally, the influence of satisfaction on loyalty was stronger for product-brand adoption than for product adoption separately, but less significant for brand adoption separately. Again the influence of satisfaction on loyalty is greater for adoption of innovative products than for traditional products, as consumers utilize innovative products to a larger extent and thus make greater demands as opposed to their involvement with and demands of traditional products. The study found that satisfaction and loyalty occur earlier in the encounter as explained by previous studies. The possibility of satisfaction exists initially, once the product fulfils the customer's needs. However, satisfaction at this level lacks depth due to the lack of benefits that are not tangible and cognitive. This does not diminish,
however, the significant contribution of this phase in generating customer loyalty and satisfaction that can appreciate in the later stages and over time.

Savidas and Baker-Prewitt (2000) conducted "An Examination of the relationship between service quality, customer satisfaction and store loyalty". They employed a national random telephone survey of 542 shoppers to test two complementary models regarding the interrelationship between service quality, customer satisfaction, and store loyalty within a department store context. These two models are: Dick and Basu's (1994) relative attitude construct and Oliver's (1997) four-stage loyalty model. They stated Dick and Basu's (Dick and Basu 1994, p. 100) concept of relative attitude as "a favourable attitude that is high compared to potential alternatives". The findings of their research reveal that as far as retail stores are concerned, service quality influences customer satisfaction with retail stores. And empirical evidence shows that satisfaction and service quality together influence relative attitude, which subsequently influences the likelihood of recommendation. Therefore, in order to retain customers and generate new ones, a positive relative attitude among department shoppers must be instilled by achieving customer satisfaction and delivering service quality. This evidence buttressed the argument that service quality has an essential influence on customer satisfaction (Rust and Oliver, 1994). Besides, they found that consumers who have the tendency to recommend a department store are also more likely to be more loyal to that store through further repurchases. A relative attitude was not found to develop in to repeat purchases at department stores. Rather relative attitude influences loyalty through the intermediation of the likelihood of recommending a store. Satisfaction also has an influence on the likelihood of recommending a store and repurchase but no direct influence on loyalty. Therefore, satisfaction alone will not result in doyalty (Jones and Sasser, 1995), but will contribute to loyalty as an antecedent to sustaining a positive relative attitude, and suggesting the store and buying from it again.

Bloemer and Lemmink (1992) studied "The importance of customer satisfaction in explaining brand and dealer loyalty" by sampling responses from 416 customers of different automobile-dealers of a Japanese manufacturer through mailed questionnaires. In their study, they differentiated between three types of customer satisfaction: (a) satisfaction with the car, (b) satisfaction with the sales service and (c) satisfaction with the after-sales service, with the expectation that all three variants of satisfaction would impact brand as well as dealer loyalty. The results show that customer satisfaction with the car and dealer loyalty are primary influencers of brand loyalty; customer satisfaction with the sales service and after-sales
service are primary influencers of dealer loyalty while dealer loyalty acts as an intermediary variable in the satisfaction-brand loyalty interrelationship. Additionally, the study revealed that the strength of the association between the variants of satisfaction and the loyalty signs varied significantly between several market segments (private/business use of car and new/used car buyer). For the business segment, the influence of after-sales service satisfaction on dealer loyalty is greater than for the private segment. And in terms of new market segment versus used one, the impact of after-sales service satisfaction on dealer loyalty is greater for the new one.

Johnson and Sirikit (2002) employed the SERVQUAL instrument to study service quality in the Thai telecommunications industry and based on the tentative customer intentions determine if service quality ratings predicted a competitive advantage among telecommunication firms based on the tentative customer intentions and whether the SERVQUAL instrument could reliably assess service quality/expectations among customers in Thailand's telecommunication industry. The researchers ob tained 484 responses from both fixed line telephone customers of TelecomAsia (TA), Thai Telephone and Telegraph (TT $\& T$, and mobile phone customers of Advance Info Services (AIS) and Total Access Communication (TAC), who had patronized the telecommunications services before for at least one day but were not necessarily subscribers. Results of the study showed that the Thai telecommunications industry scored highly on the tangibles dimension, especially the uniform of the customer service staff, while obtaining low scores for the empathy dimension. Zeithaml, Berry and Parasuraman, Zeithaml and Berry (1990) observed that the tangible dimension of service quality is of extreme importance to customers' perceptions of service quality. To assess the competitive advantage of a company as a result of customers' perceived service quality, the maximum score for these perceptions was used. TAC emerged as the highest, outperforming others in four dimensions: perceived tangibles, reliability, responsiveness and empathy. Contrary to Parasuraman's (1998) assertion about the usefulness of service quality for competitive assessment, the study did not yield any evidence to corroborate the relationship between service quality and behaviour intentions.

Thepsilpavisut (2004) studied "The relationship between customer satisfaction and customer retention on car service industry in Kamphangphet Province: a case study of Kamphangkollakarn CO. Ltd. The research had as its objectives to examine the effect of factors related to tangibles, responsiveness, reliability, and price on customer satisfaction level of auto garage business in Kamphangphet province and to study the relationship
between the level with regard to the customer satisfaction and customer retention in that business in that province. The conceptualization of customer satis faction included dimensions of tangibles, responsiveness, reliability and price, while the dimensions of customer retention included repurchase intention, feedback to suppliers and word-of-mouth. The researcher sampled 217 responses from Kamphangkollakarn customers directly and by mail. The study tested the hypothesis using bivariate correlation statistic and Spearman's rank correlation. The researcher found that all the dimensions of customer satisfaction as operationalized were positively related to customer retention as customers, satisfied with the tangibles, responsiveness, reliability and price of the car service firm, were willing to patronize its services again. Additionally, the study found that reliability was the most influential factor affecting customer retention for Kamphangkollakarn Co. Ltd.

Pateepawanich (2007) studied "The relationship between customer satisfaction and customer loyalty: a study of true fitness health club in Bangkok". The purpose of this study was to investigate the relationships among the five dimensions of service quality, customer satisfaction, and customer loyalty. The study had as its target population, the members of a True fitness health club. Through questionnaires, the researcher sampled responses from 384 respondents and performed analysis on the data using Pearson Product Moment Correlation for all hypothesis set. The study found positive relationships among all variables, with tangibles showing the strongest, and empathy the weakest. The findings of the research supported the interrelationship among the variables of customer satisfaction and customer loyalty.

Table 2.3: Summary of Previous Studies

| Researcher | Topic | Methodology | Results |
| :---: | :---: | :---: | :---: |
| Chwo-ming, Lei- <br> You, Yu-ching and <br> Hsing-Shia (2005) | Perceived quality, customer satisfaction, and customer loyalty | Structural equation model(LISREL) | - Perceived quality has a positive and direct relation to customer satisfaction <br> - Customer's expectation influence overall satisfaction <br> - Varying levels of overall customer satisfaction positively influence customer loyalty |
| Mai (2005) | Customer satisfaction | - Independent samples t -test <br> - Multiple linear regression analysis | Overall satisfaction and overall impression of the school influenced overall impression of quality |
| Wang and Lo (2002) | Service Quality, customer satisfaction and behaviour intention | - Partial least squares <br> - Base variance analysis | reliability, assurance, tangibles, network quality and customer value have influence on satisfaction customer value has a greater influence on behaviour intentions than does satisfaction |


| Researcher | Topic | Methodology | Results |
| :---: | :---: | :---: | :---: |
| Torres-Moraga, Vasquez-Parraga and Zamora-Gonzalez (2008), | Customer <br> Satisfaction and <br> Loyalty | - Structural equation modeling | Satisfaction-loyalty relationship is significantly present when evaluating products alone, but weaker when evaluating brand alone; relationship is also stronger when evaluating product and brand combined |
| Eugene Savidas and Jamie L. Baker- <br> Prewitt (2000) | service quality, customer satisfaction and store loyalty | Structural equation modeling (LISREL) | - Service quality influences relative attitude, repurchase and recommendation, but no direct effect on store loyalty |
| Bloemer and Lemmink (1992) | customer satisfaction brand loyalty and dealer loyalty | Multiple Linear Regression Analysis 1969 ald อัลสร | - Customer satisfaction with the car and dealer loyalty are primary influencers of brand loyalty; customer satisfaction with the sales service and after-sales service are |

$\left.\begin{array}{|l|l|l|l|}\hline & & & \begin{array}{l}\text { primary } \\ \text { influencers of } \\ \text { dealer loyalty }\end{array} \\ \text { - Dealer loyalty } \\ \text { acts as an } \\ \text { intermediary } \\ \text { variable in the } \\ \text { satisfaction-brand } \\ \text { loyalty } \\ \text { interrelationship. }\end{array}\right]$

| Researcher | Topic | Methodology | Results |
| :---: | :---: | :---: | :---: |
| Johnson and Sirikit (2002 | Service Quality | ANOVA | The study did not yield any evidence to corroborate the relationship between service quality and behaviour intentions |
| Thepsilpavisut (2004) | Customer satisfaction and customer retention | - Bivariate correlation statistic <br> - Spearman's Rank correlation coefficient | Significant and positive relationship between SERVPERF factors and customer retention, with reliability being the most influential factor |
| Pateepawanich (2007) | Customer satisfaction and customer loyalty | Pearson Product Moment Correlation | Customer satisfaction related to customer loyalty |

## CHAPTER 3 <br> THEORETICAL AND CONCEPTUAL FRAMEWORK

This chapter considers the modified conceptual framework based on previous empirical research. It includes four parts: the theoretical framework, conceptual framework, research hypotheses and operationalization of variables.

### 3.1 Theoretical Framework

Numerous studies have been conducted on a variety of constructs that include perceived car after-sales service quality, satisfaction with after-sales service, dealer loyalty and brand loyalty and their interrelatedness (Chwo-Ming, Lei-Yu, Yu- Ching Chao and Hsing -Shia, 2005; Bloemer and Lemmink, 1992; Rigopoulou, Chaniotakis, Lymperopoulos, Siomkos, 2008; Bloemer, Kasper and Lemmink, 1990; Huber and Herrmann, 2001; Bouman and van der Wiele, 1992). With the theoretical framework, the variables are explained and discussed in a logical manner. By the theoretical framework, the researcher was able to coherently establish the relationships among the various factors singled out as critical to the problem and through the conceptual framework, the researcher outlined and explained the independent and dependent variables pertaining to this study. Subsequently, the research hypotheses articulate the relationships between the variables. Finally, the operationalization of the variables specifies the operations necessary to measure them.

Figure 3.1: Measuring Service Quality in the Car Service Industry: Building and Testing an Instrument


Source: Bouman and Wiele (1992), Measuring Service Quality in the Car Service Industry:
Building and Testing and Instrument, International Journal of Service Industry Management, Vol. 3 No. 4, 1992, pp. 4-16.

Bouman and Wiele (1992) studied Measuring Service Quality in the Car Service Industry and built and tested an instrument for this purpose. Based on the SERVQUAL dimensions, they developed a questionnaire specific to the car service industry which measured customers' expectations and perceptions of service quality of the car service firm. Three factors emerged from their analysis of the results, as customer-perceived dimensions of service quality with regards to car servicing: customer kindness, tangibles and faith. Additionally, these dimensions appear to be dependent of each other.

Bouman and Wiele (1992) determined that customers evaluated service quality based on how they perceived customer kindness. They also argued that tangibles and faith influenced how customers perceived customer kindness. However, the influence which customer kindness has on service is indirect.

The three factors are entirely different from the five SERVQUAL dimensions. The Customer Kindness factor encompasses every one of the SERVQUAL elements with the exception of Tangibles. Bouman and Wiele (1992) concluded that the four SERVQUAL elements are viewed by car service recipients as an individual component and are also associated with "human performance" aspect of service (Berry et. al., 1988). According to Bouman and Wiele (1992), customer kindness, consequently, can be perceived as the "human
performance" or "relational component" of service. For the sake of simplicity, customer kindness is referred to as "kindness".

The Tangibles factor correlates with the tangibles dimension, while faith, however, is a dimension not identified by Berry et al., (1988). Other studies corroborate these findings. Customer kindness, for example, is supported by Gronroos (1990) as "functional quality", Carizon (1987) as "moments of truth", and by Hedvall and Paltschil (1989) as "willingness and ability to serve". Berry et al., (1988) differentiated tangibles, as did Lehtinen and Lehtinen (1982), which referred to it as "physical quality". Faith, on the other hand, is not found in other studies. Gronroos' (1990) dimension of "Reputation and Credibility", however, touches on some of the items of the Faith dimension. Regarding "reputation and credibility", Gronroos suggested that customers agree that they can trust the offerings of the service provider, and that these offerings provide sufficient advantage for their money's worth. Additionally, customers believe that these operations represent good work and ideals which customers and service provider can identify with.


Figure 3.2: A Conceptual Framework of Service Quality in Healthcare


Source: Padma, Rajendran and Prakash Sai (2009), A Conceptual Framework of Service Quality in Healthcare: Perspectives of Indian patients and their attendants, Benchmarking: An International Journal Vol. 16 No. 2, pp. 157-191

In their study of healthcare from the perspectives of patients and attendants, Padma, Rajendaran and Prakash Sai's (2009), developed the framework shown in Figure 3.2 above as an alternative to the SERVQUAL instrument to measure service quality in the Indian Healthcare Industry. Their framework conceptualized service quality on a number of primary and secondary dimensions, such as, for example, infrastructure, personnel quality, process of clinical care.

They suggested that hospitals need to be cognizant of the requirements of their customers (patients) in order to satisfy them. Satisfied customers will promote the services through word-of-mouth to their family and friends who will in turn patronize the hospital. Such recommendations are an important mediator in the purchasing decisions of patients.

Ultimately, patients who are satisfied with a hospital's services will stay loyal and tend to be more willing to pay extra for improved services.

Figure 3.3: The Research Model of the Relationships between Satisfaction and Loyalty


Source: Bloemer and Pauwels (1998) Explaining Brand Loyalty, Dealer Sales Loyalty and Dealer After-Sales Loyalty: The Influence of Satisfaction with the Car, Satisfaction with the Sales Service and Satisfaction with the After-Sales Service, Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behaviour, Volume 11, pp 78-90

In order to determine the existence of a correlation between satisfaction and loyalty, which dimension of satisfaction has an effect on a particular kind of loyalty and the interrelationship between the different dimensions of loyalty, Bloemer and Pauwels (1998) combined three variables of satisfaction. These three variables are: satisfaction with the car, satisfaction with the sales service provided by the dealer, and satisfaction with the after-sales service of the dealer together with three associated concepts of loyalty.

In Figure 3.3, these three elements of satisfaction represent the independent variable, with brand loyalty as the dependent variable, intervened by dealer sales loyalty and dealer after-sales loyalty.

Their study concluded that satisfaction is a salient antecedent of loyalty. The generalization holds that the correspondent aspects of satisfaction (brand, sales and aftersales) to a large extent influence the corresponding elements of loyalty (brand, sales and after-sales). Furthermore, the distinctive patterns of loyalty are mutually dependent.

### 3.2 Conceptual Framework

Based on the foregoing theoretical frameworks, the researcher adapted and developed a new model with regard to the perceived service quality dimensions of automobile after-
sales service and incorporating the effect these perceptions have on after-sales service satisfaction, dealer after-sales loyalty and brand loyalty on the part of the customer.


Figure 3.4: The Modified Conceptual Framework of a Comparative Study of Perceived Quality Dimensions, Satisfaction with After-Sales Service, Dealer After-Sales Loyalty and Brand Loyalty between Toyota and Honda Customers in Bangkok, Thailand


The conceptual framework illustrates three antecedents of brand loyalty: perceived car aftersales service quality perception dimensions, after-sales service satisfaction and dealer aftersales loyalty.

First and foremost are the perceived car after-sales service quality dimensions with regard to the three factors (kindness, tangibles and faith) culled from Bouman and van der Wiele's (1992) framework of service quality in the car service industry. These three factors collectively make up the customer's perception of the quality of the after-sales service received. Kindness refers to all the SERVQUAL dimensions (reliability, responsiveness, assurance and empathy except tangibles) and is supported by Gronroos (1990), Carlzon (1987) and Hedvall and Paltschik (1989). Tangibles corresponds to the tangibles of SERVQUAL as argued by Bouman and van der Wiele (1992) and confirmed by Berry et al., (1988) and Lehtinen and Lehtinen (1982). Faith refers to a factor not determined by Berry et al., (1988). Berenschot (1988), a consultancy firm, cited in a report the inability of a customer to access the modus operandi of an auto service facility and consequently make an independent appraisal of the service offered. It is therefore left to the customer to believe that the recommendations proffered are to his benefit and that the services agreed will be carried out as stipulated. This is what Bouman and Wiele (1992) conceptualized as the Faith factor.

The second part of Figure 3.4 represents the satisfaction-loyalty construct. Several elements (satisfaction with after-sales service, dealer after-sales loyalty, and brand loyalty) are adapted from the framework of the relationships between satisfaction and loyalty. Several studies researched the connection between store loyalty and brand loyalty (Bloemer and Pauwels, (1998); Bloemmer and Lemmink, (1992); Cunningham, (1956, 1961); Carman, (1970); Tranberg and Hansen (1986); Bloemer et.al., (1990); Bloemer and Lemmink, (1992)). What they show is that store loyalty is an intermediating factor between customer satisfaction and loyalty to the brand.

Based on this modified conceptual framework, the researcher studied the influence of perceived car after-sales service quality, after-sales service satisfaction, and dealer after-sales loyalty on brand loyalty of Toyota and Honda dealerships in Bangkok.

### 3.3 Research Hypotheses

A hypothesis is a researcher's supposition about the association between two or more variables. Zikmund (2003) opined that the hypothesis is an unfounded proposal or suggestion that provisionally explains certain realities or occurrences; a conjecture that can be tested
experimentally, a likely response to a research question. Based on the preceding argumentation, the hypotheses considered were grouped into three segments, are as follows:

## Group A: Hypotheses regarding the differences in variables between Toyota and

 Honda.1. $\mathrm{H}_{10}$ : There is no statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers in Bangkok when determined by three dimensions of kindness, tangibles and faith.
$\mathrm{H}_{1 \mathrm{a}}$ : There is a statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers in Bangkok when determined by three dimensions of kindness, tangibles and faith.
2. $\mathrm{H}_{20}$ : There is no statistically significant difference in satisfaction with aftersales service between Toyota and Honda customers in Bangkok.
$\mathrm{H}_{2 \mathrm{a}}$ : There is a statistically significant difference in satisfaction with aftersales service between Toyota and Honda customers in Bangkok.
3. $\mathrm{H}_{30}$ : There is no statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers in Bangkok.
$\mathrm{H}_{3 \mathrm{a}}$ : There is a statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers in Bangkok.
4. $\mathrm{H}_{40}$ : There is no statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok.
$\mathrm{H}_{4 \mathrm{a}}$ : There is a statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok.

## Group B: Hypotheses regarding the relationship of variables measured among Toyota and Honda customers.

5. $\mathrm{H}_{50}$ : There is no statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok.
$\mathrm{H}_{5 \mathrm{a}}$ : There is a statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok.
6. $\mathrm{H}_{60}$ : There is no statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Toyota and Honda customers in Bangkok.
$\mathrm{H}_{6 \mathrm{a}}$ : There is a statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Toyota and Honda customers in Bangkok.
7. $\mathrm{H}_{7 \mathrm{o}}$ : There is no statistically significant relationship between dealer after-sales - loyalty and brand loyalty of Toyota and Honda customers in Bangkok. $\mathrm{H}_{7 \mathrm{a}}$ : There is a statistically significant relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok.
8. $\mathrm{H}_{80}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales loyalty have no statistically significant effect on brand loyalty of Toyota customers in Bangkok.
$\mathrm{H}_{8 \mathrm{a}}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales loyalty have a statistically significant effect on brand loyalty of Toyota customers in Bangkok.
9. $\mathrm{H}_{90}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales loyalty have no statistically significant effect on brand loyalty of Honda customers in Bangkok.
$\mathrm{H}_{9 \mathrm{a}}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales loyalty have a statistically significant effect on brand loyalty of Honda customers in Bangkok.

### 3.4 Operationalization of Variables

Cooper and Schindler (1998) defined operation definition as a definition stated in terms of specific testing criteria or operations that must specify the characteristic to study and how they are observed. With the construction of actual definition and specific techniques of measurement, the desired results will be obtained. There is one independent variable, two intervening variables, and one dependent variable explained as follows:

Table 3.1: Operational Definition of Dependent and Independent Variables

| Variable <br> Brand Loyalty | Concept of Variable <br> - A deeply held commitment to rebuy/repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand set purchasing despite situational influences and marketing efforts having the potential to cause switching behaviour. | Operationalizing Components <br> - Intention to purchase the same car brand in the future. | Measurement Scale <br> - Interval scale |
| :---: | :---: | :---: | :---: |
| Dealer After-Sales Loyalty | - The regularity with which a customer comes in for vehicle maintenance, parts buying from the | - Intention to patronize after-sales service of a particular dealership in the future. | - Interval scale |


|  | Parts Department <br> and recommends <br> family and friends <br> to do the same. |  |  |
| :--- | :--- | :--- | :--- |


| Variable | Concept of Variable | Operationalizing <br> Components | Measurement Scale |
| :---: | :---: | :---: | :---: |
| Satisfaction with After-Sales Service | - The customers' post- service evaluation of the after-sales service quality | - Wisdom of service choice. <br> - "Rightness of service choice. <br> - Appropriateness of facility for service. | - Interval Scale |
| Kindness | - The front office personnel's approach to the customer and his problems, regardless of the service delivered. <br> - Speed, reliability and friendliness of front office personnel | - Friendly attention. <br> - Dealing with complaints. <br> - Employees' skills. <br> - Reliable behaviour. <br> - Solving complaints. <br> - Good advice. <br> - Courteous employees. <br> - Consideration of customer's interests. <br> - Request customer's instructions. <br> - Exact <br> 9 communication of $\circ$ expected service. <br> - Keeping appointments. <br> - Prompt attendance. <br> - Control of appointments. <br> - Error free repairs. <br> - Explanation for repairs. <br> - No unnecessary work. <br> - Direct-service granted. | - Interval Scale |


|  |  | - Maintenance on <br> short term notice. |  |
| :--- | :--- | :--- | :--- |


| Variable | Concept of Variable | Operationalizing <br> Components | Measurement Scale |
| :---: | :---: | :---: | :---: |
| Tangibles | - The concrete characteristics of the service. | ```- Groomed employees. - Attractive promotion material. - Direction signs. - Refreshment. - Clean cars in showroom. - Payment agreement. - Answering telephone quickly. - Warranty. - Control of customer's car. - Neat surroundings. - Personal reference. - Neat property. - Reception.``` | - Interval Scale |
| Faith | - The way a car service business gives the customer insight into the actual car servicing process. Information about the process produces faith and reassurance. | - Contact in case of expensive repairs. <br> - Provide checklist. <br> - Working outside <br> 9 normal office hours. <br> C Contact in case of extra repairs. <br> - Communication of risk of repairs. <br> - Provision of written estimate. <br> - Car ready at promised time. <br> - Explanation of invoice. | - Interval Scale |

## CHAPTER 4

## RESEARCH METHODOLOGY

In this chapter, an overview of the methodology employed in this study is presented. To obtain the objectives sought out in this research, a proper research design is necessary to guide the data collection. Part one describes the respondent selection and data collection. Part two considers attributes of the research population. Part 3 explains the research instrument and part four, the pretest results. The final section looks at the data collection and statistical analysis.

### 4.1 Research Methodology

This is a comparative study of perceived car after-sales service quality dimensions of Toyota and Honda dealerships in the Bangkok Metropolitan area. Its purpose is to better understand the influence of perceived quality and customer satisfaction on dealer after-sales loyalty and brand loyalty. Descriptive research is employed to describe the population through the use of survey technique to collect primary data. Zikmund (2003) observed that "the purpose of descriptive research is to describe the characteristics of a population or phenomenon. It also seeks to determine the answers to who, what, when, where, and how questions." The researcher employs the survey technique in accordance with Zikmund (1997) who defined survey as a research technique in which information is gathered from a sample of people who answer the questionnaires; a method of data collection based on communication with a representative sample of the target.

### 4.2 Respondents and sampling procedures

### 4.2.1 Target Population

Zikmund (2003) defined target population as a clearly definable group of individuals and/or families who are experiencing a problem or need. For this research, the target population was Bangkok customers who had bought a new car for private use from an official dealer of Toyota or Honda and maintained the car with that particular dealer between 1 and 2 years before the study.

### 4.2.2 Sample Size

Previous studies are referred to in order to determine an appropriate sample size for this research. First, Rigopoulou et. al., (2008) studied after-sales service quality as an
antecedent of customer satisfaction, analyzing questionnaires obtained from 420 respondents. Second, questionnaires from 350 respondents were analyzed in Wang, Lo and Hui's (2003) study of the antecedents of service quality and product quality and their influences on bank reputation in the banking industry in China. Lastly, in Yu et. al's (2005) study of perceived quality, customer satisfaction, and customer loyalty of Lexus in Taiwan, questionnaires from 319 respondents were statistically analyzed. Based on these similar studies, the researcher concludes that 400 respondents is an appropriate sample size in conducting this study.

### 4.2.3 Sampling Procedure

The classification of sampling is separated in to two categories which are probability and non-probability sampling design. Zikmund (1997) concluded that non-probability sampling is defined as a sampling technique in which units of samples are selected on the basis of personal judgment or convenience and the probability of any particular member of the population being chosen is unknown, whereas in probability sampling every member of the population is selected based on a known, nonzero probability of selection.

## Step 1: Cluster Sampling (Area Sampling)

According to Zikmund (2003), cluster sampling is an economically efficient sampling technique in which the primary sampling unit is not the individual element in the population but a large cluster of elements. The method of cluster sampling employed in this research is area sampling. Zikmund (2003) defined area sampling as a cluster sample in which the primary sampling unit is a geographic area. In this research, the primary sampling unit, the cluster is the districts of Bangkok that have at least a Toyota and Honda dealership. Out of the 50 districts in Bangkok, 43 of those have a total of 87 Toyota dealerships, while 34 districts have a total of 42 Honda dealerships.

## Step 2: Simple Random Sampling

Zikmund (2003) defined Simple Random Sampling as a sampling procedure that assures each element in the population an equal chance of being included in the sample. The simple random sampling method was employed to draw 4 districts from a ballot of the districts which had dealerships of Toyota and Honda. These 4 districts are Chatuchak, Lad Prao, Bangkapi, and Huay Kwhang, which make up the secondary sampling unit.

As these districts contain more than one dealership, a second simple random sampling by ballot had to be conducted to draw one dealership from each district for Toyota and Honda, each being part of the tertiary sampling unit.

## Step 3: Quota Sampling

Quota sampling technique is a nonprobability sampling procedure that ensures that certain characteristics of a population sample will be represented to the exact extent that the investigator desires (Zikmund, 2003). In this research, the 400 questionnaires were equally divided among Toyota and Honda customers thus obtaining 200 samples for each, and subsequently 50 samples allocated to each dealership in the 4 districts selected. The allocation of questionnaire by district to dealerships of each brand is shown in table 4.1 below:

Table 4.1: Allocation of questionnaire to Toyo ta and Honda dealerships

| Districts | Dealership |  | Dealership |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Toyota | Amount | Honda | Amount |
| Chatuchak | Toyota Metro | 50 | Phranakorn <br> Honda | 50 |
| Lad Prao | Toyota Libra | 50 | Ek Intra Honda | 50 |
| Bangkapi | Toyota K. <br> Motors | 50 | Summit Honda | 50 |
| Huay Kwhang | Toyota <br> Thonburi | 50 | Praram 9 <br> Honda | 50 |
| Total |  | 200 |  | 200 |

## Step 4: Convenie nce Sa mpling

Convenience sampling is the sampling method used to gather information from people who are most conveniently available. This method is beneficial to obtain a large number of completed questionnaires quickly and economically (Zikmund, 2003). This sampling method was used to gather information from customers who had come to service their vehicles at the dealerships of Toyota and Honda.

### 4.3 Research Instrument

In this research, a self-administered questionnaire was employed. Zikmund (2003) defined a self administered questionnaire as one that is filled in by the respondents rather than
the interviewer. The questionnaire, consisting of a total of 56 questions in 5 parts, was prepared in Thai for respondents' easy comprehension. The details are as follows:

Part 1: Perceived Service Quality Dimension in Car Service Industry; there are three variables in this section; kindness, tangibles and faith. The thirteen questions are based on five points Likert scale method measuring the degree of agreement. The questions measure the perceived service quality of the dealership employing the model used by Bouman and van der Wiele (1992).

The scales used here are ranked in the following order:

1. refers to "Strongly disagree"
2. refers to "Disagree"
3. refers to "Neutral"
4. refers to "Agree"
5. refers to "Strongly Agree"

Part 2: Customer Satisfaction; in this section, customer satisfaction with regard dealership service quality is measured with 3 items as adapted from typology Olorunniwo and Hsu (2006). The questions are based on five points Likert scale method of assessing the extent of agreement.

The scales used here are ranked in the following order:

1. refers to "Strongly dissatisfied"
2. refers to "Dissatisfied"
3. refers to "Neutral"
4. refers to "Satisfied"
5. refers to "Strongly Satisfied"

Part 3: Dealer After-Sales Loyalty; this section measured the customer's intention $r$ to continue purchasing the services of the dealership in the future based on hisher previous experience as adapted from Bloemer and Pauwels (1998). The four questions are based on the five points Likert scale method of assessing the extent of agreement.

The scales used here are ranked in the following order:

1. refers to "Strongly agree"
2. refers to "Agree"
3. refers to "Neutral"
4. refers to "Disagree"
5. refers to "Strongly disagree"

Since the dealer after-sales loyalty measures are negative statements, the scores were converted upon data collection from 1 to $5 ; 2$ to $4 ; 4$ to $2 ; 5$ to 1 and 3 remained unchanged, as presented in Chapter 5.

Part 4: Brand Loyalty; there are five questions in this section which measure the customer's loyalty to the brand as adapted from Bloemer and Pauwels (1998). The questions are based on the four points Likert scale method of assessing the extent of agreement.
6. refers to "Strongly agree"
7. refers to "Agree"
8. refers to "Neutral"
9. refers to "Disagree"
10. refers to "Strongly disagree"

Since the brand loyalty measures were negative statements, the scores were converted upon data collection as follows, from 1 to $5 ; 2$ to $4 ; 4$ to 2 ; 5 to 1 and 3 remained unchanged, as presented in Chapter 5.

Part 5: Demographic Profile: this section uses fixed-alternative questions to obtain a profile of respondents as follows:
1.1 Gender: two choices are provided, male or female
1.2 Age: five choices are provided with ages ranging from below 20 years old, 2130 years old, 31-40 years old, 41-50 years old, and above 50 years old
1.3 Marital status: two choices are supplied- single or married
1.4 Occupation: five choices are provided, which are student, government or state enterprise officer, official emp loyee, business owner, and others
1.5 Income; five options are given which are less than or equal to 10,000 Baht, 10,001-20,000 Baht, 20,001-40,000 Baht, 40,001- 60,000 Baht and Above 60,000 Baht.

Table 4.2 Arrangement of Questionnaire

| Part | Main Variables | Question No. |
| :--- | :---: | :---: |
| 1a. | Perceived Car After-Sales Service Quality <br> Dimensions-Kindness | $1-18$ |
| 1 b. | Perceived Car After-Sales Service Quality <br> Dimensions-Tangibles | $19-31$ |
| 2. | Perceived Car After-Sales Service Quality <br> Dimensions-Faith | $32-39$ |
| 3. | Satisfaction with After-Sales Service | $40-42$ |
| 4. | Dealer After-Sales Service Loyalty | $43-46$ |
| 5. | Brand Loyalty | $47-50$ |

### 4.4 Pre-tests

Zikmund (2003) defined a pre-test as a trial run with a group of respondents to screen out problems in the design of a questionnaire. A pretest or pretests, if needed, frequently filters problems in wording, questionnaire format and other segments which have an immense influence on the validity of the research findings (David and Cosenza, 1988). Vanichbuncha (2001) suggested that in conducting a pretest, a minimum number of 25 respondents should be used.

The pilot study to ascertain the appropriateness of the questionnaire for the final survey was conducted using convenience sampling by distributing 50 questionnaires to staff of Charoen Pokphand North Eastern in February, 2010.

In testing the suitability of the questionnaire, the Cronbach's coefficients alpha is employed as this is appropriate for multi-point scaled items in testing consistent reliability where an $\alpha$ less than 0.6 means that the questionnaire is considered as poor and unreliable, whereas an $\alpha$ greater than 0.6 means the questionnaire is acceptable, according to Sekaran (1992). The results using the Statistical Package for Social Sciences (SPSS) to pre-test the questionnaires are shown in Table 4.3:

Table 4.3: The reliability of the questionnaire showing each dimension

| Variables | Cronbach's Alpha |
| :--- | :---: |
| Kindness | 0.651 |
| Tangibles | 0.844 |
| F aith | 0.907 |
| Satisfaction | 0.891 |
| Dealer After-Sales Loyalty | 0.685 |
| Brand Loyalty | 0.663 |

As indicated in the table, the pre-tested questionnaire of all variables dimensions was reliable since the Cronbach alpha coefficients are all greater than 0.6.

### 4.5 Collection of Data

In conducting this research, the data employed was obtained chiefly from two sources. The first source was primary data, that is, data that was collected from respondents to the questionnaires distributed to the dealerships drawn from the sampling procedure. Questionnaires were hand distributed to waiting customers who had brought in their vehicles for maintenance at dealerships of both Honda and Toyota during the first two weeks of May. The second data source was that which was obtained via the Internet from previous researchers, whose works were published in various journals and articles. Additionally, some of the information was collected from hard copies such as theses, text books and newspapers.

### 4.6 Statistic al Treatment of Data

After collecting all of the necessary data, they were analyzed and summarized in a readable and easily interpretable form using the Statistical Package of Social Science (SPSS). The statistical tools used in this research are explained in the following section.

## Descriptive Analysis

Descriptive analysis refers to the transformation of the raw data into a form that makes them easily comprehensible and interpreted. This method typically describes the responses of observations. The calculation of the average, frequency distribution, and the percentage distribution is the most common form of summarizing data (Zikmund, 2003).

## Independent Sample T-test

This statistical procedure is employed to test the different means between two independent samples. In independent samples t-test, when two samples from the same population are taken, the mean of the two samples may be identical. However, when samples are taken from two different populations, there will be a difference in the mean of the samples. Thus, independent sample $t$-test is employed to draw conclusions about the means of two populations, and to distinguish their similarity or otherwise. The major assumption of the test is that the samples are independently drawn from normal populations with equal population variances. If the independent sample assumption is violated, the major consequence is correlated sample means, which could yield errors in the analysis.

Davis (2005) observed that a t -test of significance is a very robust test, in that the efficiency of the test even when the assumptions are violated can be assured.
The formula for the independent samples t-test analysis is as follows:

$$
t=\frac{\bar{X}_{1}-\bar{X}_{2}}{s_{\bar{X}_{1}-\bar{X}_{2}}}
$$

Where

$$
s_{\bar{X}_{1}-\bar{X}_{2}}=\sqrt{\frac{s_{1}^{2}}{n_{1}}+\frac{s_{2}^{2}}{n_{2}}} .
$$

Where:
$\mathrm{X}_{1}=$ Mean of group 1
$\mathrm{X}_{2}=$ Mean of group 2
$\mathrm{S}_{1}=$ Variance of group 1
$\mathrm{S}_{2}=$ Variance of group 2
$\mathrm{n}_{1}=$ Sample size of group 1
$\mathrm{n}_{2}=$ Sample size of group 2
$\mathrm{df}=$ degree of freedom
Group 1 = Toyota
Group 2 = Honda

## Pearson Correlation

Zikmund (2003) defined the Pearson Correlation coefficient as a parametric test to measure the strength of association between pairs of variables, testing the magnitude and direction of relationships. According to Zikmund (2003), the formula for calculating the correlation coefficient (r) for the variable X and Y are as follows:

$$
r=\frac{1}{n-1} \sum_{i=1}^{n}\left(\frac{X_{i}-\bar{X}}{s_{X}}\right)\left(\frac{Y_{i}-\bar{Y}}{s_{Y}}\right)
$$

Where:
$\mathrm{X}_{\mathrm{i}}=$ mean of group 1
$\mathrm{Y}_{\mathrm{i}}=$ mean of group 2
$\mathrm{S}_{\mathrm{X}}=$ standard deviation of group 1
$S_{Y}=$ standard deviation of group 2
The correlation coefficient (r) ranges from +1 (perfectly positive linear relation) to -1 (perfectly negative linear relationship), as shown in the table 4.4

Table 4.4: Interpretation of various correlation coefficients

| Correlation ( r ) | Interpretation |
| :---: | :---: |
| 1 | Perfectly positive linear association |
| 0 | No linear association |
| -1 | Perfectly negative association |
| 0.90 to 0.99 | Very high positive association |
| 0.70 to 0.89 | High positive association |
| 0.40 to 0.69 | Medium positive association |
| 0.00 to 0.39 | Low positive association |
| 0.00 to -0.39 | Low negative association |
| -0.40 to -0.69 | Medium negative association |
| -0.70 to -0.89 | High negative association |
| -0.90 to -0.99 | Very high negative association |

Source: Hussy (1997), Business Research: a Practical Guide for undergraduate and postgraduate students, p.227, MacMillan, London.

## Multiple Linear Regression Analysis (MLR)

Multiple linear regression analysis is a statistical technique that can be used to analyze the relationship between a single dependent (criterion) variable and several independent predictor variables. The objective of multiple linear regression analysis is to use the independent variables whose values are known to predict the single dependent value selected by the researcher. Each independent variable is weighed by the regressions analysis procedure to ensure maximal prediction from the set of independent variables. The weights denote the relative contribution of the independent variables to the overall prediction and facilitate interpretation as to the influence of each variable in making the prediction, although correlation among the independent variables comp licates the interpretative process.

Multiple linear regression analysis is a dependence technique. Thus, to use it, researcher must be able to divide the variables into dependent and independent variables. Regression analysis is also a statistical tool that should be used only when both the dependent and independent variables are metric. However, under certain circumstances it is possible to include no metric data either as independent variables or the dependent variable (by the use of a binary measure in the specialized technique of logistic regression). In summary, to apply multiple regression analysis: (1) the data must be metric or appropriately transformed, and (2) before deriving the regression equation, the researcher must decide which variable is to be dependent and which remaining variables will be independent.

One fundamental purpose of multiple linear regression analysis is to predict the dependent variable with a set of independent variables. In do ing so, this analysis fulfills one of the two objectives: the first objective is to maximize the overall predictive power of the independent variables as represented in the variation. This linear combination of independent variables is formed to be the optimal predictor of the dependent measure. Multiple regressions provide an objective means of assessing the predictive power of a set of independent variab les.

Multiple regressions can also meet a second objective of comparing two or more sets of independent variables to ascertain the predictive power of each variation.

The most direct interpretation of the regression variation is a determination of the relative importance of each independent variable in the prediction of the dependent measure. The selection of independent variables should be based on their theoretical relationships to the dependent variable. Regression analysis then provides a means of objectively assessing the magnitude and direction (positive or negative) of each independent variable's
relationship. The characteristic that differentiates multiple regressions from its univariate counterparts is the simultaneous assessment of relationships between each independent variable and the dependent measure (Zikmund, 2003).

In addition to assessing the importance of each variable, this analysis also affords the researcher a means of assessing the nature of the relationships between the independent variables and the dependent variables.

MLR is an analysis of association in which the effects of two or more independent variables on a single, interval-scaled or ratio-scaled dependent variable are investigated simultaneously. (Zikmund, 2003)

The Multiple Linear Regression equation is:

$$
Y=\beta_{0}+\beta_{1} X_{1}+\beta_{2} X_{2}+\beta_{3} X_{3}+\ldots+\beta_{n} X_{n}+\varepsilon
$$

Where
$\mathrm{Y}=$ dependent variable
$\mathrm{X}=$ independent variable
$\beta=$ unknown parameter
$\boldsymbol{\varepsilon}=$ error term
For the conceptual framework under study, the following multiple regression model was developed:

$$
Y=b_{0}+b_{1} X_{1}+b_{2} X_{2}+b_{3} X_{3}
$$

Where
$\mathrm{Y}=$ predicted value of dependent variable (brand loyalty) $b_{0}=\mathrm{Y}$-intercept
$X_{I}=$ value of independent variable (perceived car after-sales service quality dimensions)
$X_{2}=$ value of independent variable (satisfaction with after-sales service)
$X_{3}=$ value of three independent variables (dealer after sales loyalty) $b_{1}, b_{2}, b_{3}=$ slopes for $X_{1, X_{2}}$ and $X_{3}$ respectively

## Testing the model for significance

In order to determine if there is a linear relationship between X and Y , a statistical hypothesis test must be performed (Render, 2006). The null hypothesis is that there is no linear relationship between the two variables (i.e. $\beta=0$ ), and the alternate hypothesis is that there is a linear relationship (i.e. $\beta \neq 0$ ). A linear relationship exists if the null hypothesis can be rejected. An F-test is suitable for observing the existence of a linear relationship and is computed using the following equation:

$$
F=\frac{M S R}{M S E}
$$

$\begin{aligned} & \text { Where: } \\ & \mathrm{F}=\mathrm{F} \text {-statistic } \\ & \mathrm{MSR}=\text { mean squared regression } \\ & \mathrm{MSE}=\text { mean squared error }\end{aligned}$
A significance level that corresponds to the F-value is determined. A low significance level for the F-test leads to the rejection of the null hypothesis and the conclusion that there is a relationship between $X$ and $Y$. In this study, the level of significance for conducting the F-test was 0.05 .

### 4.7 Summary of statistical tools used in testing hypotheses

The null hypotheses are outlined in Table 4.5 together with the statistical methods used as follows:

Table 4.5: Statistical technique used for each hypothesis

| Null <br> Hypothesis | Null Hypothesis description | Statistical <br> technique used |
| :---: | :--- | :--- |
| $\mathbf{H}_{\mathbf{1}} \mathbf{0}:$ | There is no statistically significant difference in perceived <br> car after-sales service quality between Toyota and Honda <br> customers in Bangkok when determined by three <br> dimensions of kindness, tangibles and faith. | Independent |
| samples t-test |  |  |
|  | There is no statistically significant difference in after-sales <br> service satisfaction between Toyota and Honda customers | Independent |
|  |  | samples t-test |


|  | in Bangkok. |  |
| :---: | :---: | :---: |
| $\mathbf{H}_{3} \mathbf{0}$ | There is no statistically significant difference in dealer after-sales service loyalty between Toyota and Honda customers in Bangkok. | Independent samples t -test |
| Null Hypothesis | Null Hypothesis description | Statistical technique used |
| $\mathrm{H}_{4} \mathbf{0}$ | There is no statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok. | Independent samples t -test |
| $\mathrm{H}_{5} \mathbf{0}$ | There is no statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok. | Pearson Correlation |
| $\mathrm{H}_{6} \mathrm{O}$ | There is no statistically significant relationship between satisfaction with after-sales service and dealer after-sales service loyalty of Toyota and Honda customers in Bangkok. | Pearson Correlation |
| $\mathrm{H}_{70} \mathbf{0}$ | There is no statistically significant relationship between dealer after-sales service loyalty and brand loyalty of Toyota and Honda customers in Bangkok. | Pearson Correlation |
| $\mathbf{H}_{8} \mathbf{0}$ | Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales service loyalty have no statistically significant effect on brand loyalty of Toyota customers in Bangkok. | Multiple <br> Regression <br> Analysis |
| $\mathrm{H}_{9} \mathbf{0}$ | Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales service loyalty have no statistically significant effect on brand loyalty of Honda customers in Bangkok. | Multiple <br> Regression <br> Analysis |

## CHAPTER 5

## ANALYSIS AND PRESENTATION OF FINDINGS

In this chapter, the outcomes of the statistical analysis of the data obtained from Toyota and Honda and the relationships among variables are tested. Data for the study was obtained from a sample of 400 customers of Toyota and Honda who had bought a brand new vehicle for private use from an official dealer. The results of the data analysis and interpretation of the research findings regarding the demographic factors and nine hypotheses testing as outlined in groups A and B are presented.

### 5.1 Descriptive Analysis

An analysis of the demographic characteristics of the respondents using either Toyota or Honda vehicles is presented in this section. The demographic characteristics include gender, age, occupation and income level as shown in Table 5.1.


Table 5.1: Analysis of Demographic Factors among Toyota and Honda Customers using Frequency and Percentage

| Characteristics |  |  | Toyota |  | Honda |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Frequency | (\%) | Frequency | (\%) |
| Gender |  | -Male -Female Total | $\begin{gathered} 94 \\ 106 \\ 200 \end{gathered}$ | $\begin{gathered} \hline 47 \\ 53 \\ 100 \end{gathered}$ | $\begin{gathered} 97 \\ 103 \\ 200 \end{gathered}$ | $\begin{gathered} \hline 48.5 \\ 51.5 \\ 100 \end{gathered}$ |
| Age |  | -Below 20 years <br> -21-30 years <br> -31-40 years <br> -41-50 years <br> -More than 50 years <br> Total | 0 83 57 41 19 200 | 0 41.5 28.5 20.5 9.5 100 | 0 84 60 44 12 200 | $\begin{aligned} & 42 \\ & 30 \\ & 22 \\ & 6.0 \\ & 100 \end{aligned}$ |
| Occupation | en | -Student -Employee -Management -Government -Self Employee -Other Total SI N CE 7 | 17 121 21 28 10 3 $20 \pi$ 200 | 8.5 60.5 10.5 14.0 5.0 1.5 100 | 12 149 $-\quad 13$ 9 17 0 200 | 6 74.5 6.5 4.5 8.5 0 100 |
| Income Level |  | - Less than 10,000 baht $-10,000-20,000 \mathrm{Baht}$ $-20,001-40,000 \mathrm{Baht}$ $-40,001-60,000 \mathrm{Baht}$ - More 60,000Baht Total | $\begin{array}{\|r} \hline 9 \\ 46 \\ 84 \\ 44 \\ 17 \\ \\ 200 \end{array}$ | $\begin{gathered} \hline 4.5 \\ 23.0 \\ 42.0 \\ 22.0 \\ 8.5 \\ 100 \end{gathered}$ | $\begin{gathered} \hline 5 \\ 42 \\ 78 \\ 59 \\ 16 \\ \hline 200 \end{gathered}$ | $\begin{gathered} \hline 2.5 \\ 21 \\ 39 \\ 29.5 \\ 8.0 \\ \hline 100 \end{gathered}$ |

## The Descriptive Analysis of Toyota Demographic Factors

The analysis of Toyota respondents indicates that the majority were female (53\%) while male made up $47 \%$ of the respondents.
$41.5 \%$ of the respondents were aged between 21 and 30 with those aged between 31 and 40 making up $28.5 \%$. The rest $20.5 \%$ and $9.5 \%$ were those between $41-50$ years and those over 50 years of age respectively.
$60.5 \%$ of the Toyota customers sampled were employees in private companies, and $14 \%$ in Government institutions or state enterprises. The percentage of respondents who were in management positions stood at $10.5 \%$, while students made up $8.5 \%$ of the respondents. Self employed respondents and those in "other" employment made up $5 \%$ and $1.5 \%$ of the respondents respectively.

The highest percentage for income was that of those earning a monthly income of 20,001 - 40,000 Baht ( $42 \%$ ). Also, $23 \%, 22 \%, 8.5 \%$ and $4.5 \%$ of respondents earned a monthly income of $10,000-20,000 \mathrm{Baht}, 40,001-60,000$ Baht, more than $60,000 \mathrm{Baht}$ and less than 10,000 Baht respectively.

## The Descriptive Analysis of Honda Demographic Factors

As to Honda respondents, females made up the majority with $51.5 \%$ while males only made up the remaining $48.5 \%$.

Most respondents were between 21 and 30 years old ( $42 \%$ ). Next $30 \%$ were aged between 31 and 40 . The rest were aged 41 and $50(22 \%)$ and more than 50 years old represented $6.5 \%$.
$74.5 \%$ of the respondents were employees, with self employees following at $8.5 \%$. Another $6.5 \%$ were in management, $6 \%$ were students and $4.5 \%$ worked in government.

Reporting their income levels, $39 \%$ earned a monthly salary of 20,001-40,000 Baht, while $29.5 \%$ earned between $40,001-60,000$ Baht each month. The rest earned $10,000-$ 20,000 Baht ( $21 \%$ ) followed by $8 \%$ and $2.5 \%$ who earned more than $60,000 \mathrm{Baht}$, and less than 10,000 Baht respectively.

Table 5.2: Overall Analysis of Demographic Factors by using Frequency and Percentage


The descriptive analysis of all respondents in Table 5.2 highlights that females made up the highest percentage with $52.2 \%$ and males stood at $47.8 \%$.

Most of the respondents were between 21 and 30 years old accounting for $41.8 \%$ of the total. Also, $29.2 \%$ were aged 31 and $40,21.2 \%$ between 41 and 50 and $7.8 \%$ were more than 50 years old.
$67.5 \%$ of all the respondents were employed, $9.2 \%$ worked for the government, $8.5 \%$ were in management and $7.2 \%$ were students. The rest were self employed ( $6.8 \%$ ), and employed in "other" category ( $0.8 \%$ ).

In terms of income level, $40.5 \%$ earned between 20,001 Baht and 40,000 Baht, while $25.8 \%$ earned between 40,001 and 60,000 Baht. The rest earned between 10,000 and 20,000 Baht ( $22 \%$ ). The percentage of those earning more than 60,000 Baht was $8.2 \%$ and those less than 10,000 Baht $3.5 \%$, respectively.

### 5.2 Overall Brand Loyalty Analysis of Different Car Brands by Mean and Standard Deviation

Table 5.3: Mean Analysis of the Brand Loyalty Sub-Variables for Each Car Brand
Report

| Car type |  | When another brand is available, I will patronize | Would make little difference to choose another brand | Will patronize another favourite brand | Will change brand upon receiving info |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Toyota | Mean | ABOR <br> 3.21 <br> 200 <br> 1.140 | 2.76 | 2.89 | 3.03 |
|  | N N |  | 200 | - 200 | 200 |
|  | Std. Deviation |  | 1.158 | 1.190 | 1.120 |
| Honda | Mean | $\begin{array}{\|r} \hline 27 \\ \hline 29.16 \\ \hline 1.088 \\ \hline \end{array}$ | E1969 2,77 | 3.01 | 2.96 |
|  | N |  | $\bigcirc \quad 200$ | 200 | 200 |
|  | Std. Deviation |  | 1.142 | 1.123 | 1.131 |
| Total | Mean | 3.19 | 2.76 | 2.95 | 3.00 |
|  | N | 400 | 400 | 400 | 400 |
|  | Std. Deviation | 1.113 | 1.149 | 1.157 | 1.125 |

As Table 5.3 shows, the highest mean score for Toyota customers relates to this statement "When another brand of car is available, I will patronize it rather than my preferred car brand", with a mean score of 3.21 and standard deviation of 1.140. The lowest mean for Toyota customers was the statement "If my preferred car brand were not available right
away, it would make little difference to me if I had to choose another brand" with the mean score of 2.76 and standard deviation of 1.158 .

For Honda customers, the highest mean related to the statement "When another brand of car is available, I will patronize it rather than my preferred car brand" which had a mean score of 3.16 and standard deviation of 1.088 . The lowest mean score for Honda customers related to the statement "If my preferred car brand were not available right away, it would make little difference to me if I had to choose another brand". As to the overall mean score of Toyota and Honda customers, the highest mean score pertained to the statement "When another brand of car is available, I will patronize it" with a mean score of 3.19 and standard deviation of 1.113. The lowest mean score pertained to the statement "If my preferred car brand were not available right away, it would make little difference to me if I had to choose another brand", with a mean score of 2.76 and standard deviation of 1.149.

Table 5.4: Mean Analysis of the Overall Brand Loyalty with regard to both Brands
Descriptive Statistics

| Car type | N | Minimum | Maximum | Mean | Std. Deviation |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Toyota | MeanBrandLoyalty | 200 | 1.00 | 5.00 | 2.9700 | .95224 |
|  | Valid N (listwise) | 200 |  |  |  |  |
| Honda | MeanBrandLoyalty | 200 | 1.00 | 5.00 | 2.9750 | .94044 |
|  | Valid N (listwise) | 200 |  |  |  |  |

As shown in Table 5.4, the higher mean score in terms of brand loyalty pertained to Honda customers with a mean score of 2.9750 followed closely by Toyota customers with a mean score of 2.9700 .

### 5.3 Dealer After-Sales Loyalty Analysis of both Car Brands by Mean and Standard Deviation

Table 5.4: The Mean Analysis of Dealer After-Sales Loyalty with regard to both brands
Report

| Car type |  | When another <br> dealership <br> available, I will <br> patronize | Would make little <br> difference to <br> choose another <br> dealer | will patronize <br> another favourite <br> dealership | Will change <br> dealer upon <br> receiving info |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Toyota | Mean | 2.74 | 2.66 | 2.60 | 2.74 |
|  | N | 200 | 200 | 200 | 200 |
|  | Std. Deviation | 1.048 | 1.091 | .977 | .999 |
| Honda | Mean | 2.72 | 2.71 | 2.63 | 2.73 |
|  | N | 200 | 200 | 200 | 200 |
|  | Std. Deviation | 1.112 | 1.068 | .953 | .945 |
| Total | Mean | 2.73 | 2.68 | 2.61 | 2.73 |
|  | N | 400 | 400 | 400 | 400 |
|  | Std. Deviation | 1.079 | 1.079 | .964 | .971 |

As Table 5.4 indicates, two items had the highest mean score with regard to "Dealer After-Sales Loyalty". They were related to the statements "When another dealership is available, I will patronize it, rather than my preferred dealership" with a mean score of 2.74 and standard deviation of 1.048 and "If I have to make a choice for a particular dealership before actually using the dealership, I might easily change my intended cho ice upon receiving discrepant information" with a mean score of 2.74 and a standard deviation of 0.999 . The item with the lowest mean score of 2.60 and standard deviation of .977 pertained to the statement "If my preferred dealership is not available I will patronize another favourite dealership".

For Honda customers, the highest mean score of dealer after-sales loyalty pertained to the statement "If I have to make a choice for a particular dealership before actually using the dealership, I might easily change my intended choice upon receiving discrepant information" which had a mean score of 2.73 and standard deviation of .945 . The lowest mean score pertained to the statement "If my preferred dealership is not available I will patronize another favourite dealership" with a mean score 2.53 and standard deviation of .953 .

Table 5.5: Mean Analysis of Overall Dealer After-Sales Loyalty with regards to both Brands

Descriptive Statistics

| Car Type | N | Minimum | Maximum | Mean | Std. Deviation |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Toyota | Meandealerloyalty | 200 | 1.00 | 5.00 | 2.6850 | .69917 |
|  | Valid N (listwise) | 200 |  |  |  |  |
| Honda | Meandealerloyalty | 200 | 1.00 | 4.50 | 2.6938 | .72571 |
|  | Valid N (listwise) | 200 |  |  |  |  |

Table 5.5 showed that, the higher mean score of overall dealer after-sales loyalty was Honda customers with a mean score of 2.6938 . Toyota customers followed with a mean score of 2.6850 .

### 5.4 Satisfaction with After-Sales Service Analys is of both Car Brands by Mean and Standard Deviation

Table 5.6: Mean Analysis of Overall Satisfaction with After-Sales Service with respect to both Brands

| Report |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | :---: |
| Car type |  | Wise choice to <br> purchase service | Right thing to <br> purchase service | Facility exact for <br> service |  |
| Toyota | Mean | 3.69 | 3.59 | 3.70 |  |
|  | N | 200 | 200 | 200 |  |
|  | Std. Deviation | .834 | .797 | .825 |  |
| Honda | Mean | 3.77 | 3.80 | 3.89 |  |
|  | N | 200 | 200 | 200 |  |
|  | Std. Deviation | SIN | .902 | .881 |  |

Table 5.6 indicates that the highest mean score of "Satisfaction with After-Sales Service" pertained to the statement "Facility is exactly what is needed for this service" with a mean score of 3.70 and standard deviation of 0.825 . The statement "I did the right thing when I purchased this service" had the lowest mean score (3.59) and a standard deviation of 0.797 for Toyota customers.

For Honda passengers, the highest mean score was also the statement "Facility is exactly what is needed for this service" with a mean score of 3.89 and standard deviation of 0.881 . The lowest mean score pertained to the statement "My choice to purchase this service was a wise one" with a mean score of 3.77 and standard deviation of 0.902 .

Table 5.7: Mean Analysis of Satisfaction with After-Sales Service of both Brands

Descriptive Statistics

| Car type | N | Minimum | Maximum | Mean | Std. Deviation |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Toyota | Meansatisfaction | 200 | 1.33 | 5.00 | 3.6633 | .71280 |
|  | Valid N (listwise) | 200 |  |  |  |  |
| Honda | Meansatisfaction | 200 | 2.00 | 5.00 | 3.8150 | .76473 |
|  | Valid N (listwise) | 200 |  |  |  |  |

Table 5.7 shows that the higher mean score with respect to satisfaction relates to Honda customers with a mean score of 3.8150 . Toyota customers followed with a mean score of 3.6633. The mean score for satisfaction for both Toyota and Honda customers was greater than 3 , which implied that there is a general satisfaction with the after-sales service of both companies. However, Honda customers expressed higher levels of satisfaction with its aftersales service than Toyota customers did.

### 5.5 Perceived Car Service Quality Ranking

Table 5.8: Mean Score and Ranking of Each Car Service Quality Dimension of both Toyota and Honda Customers

| Service Quality Dimensions | Perception |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Toyota |  | Honda |  |
| Kindness | Mean Ranking <br> 1 | Mean Score $3.6250$ | Mean Ranking <br> 3 | Mean Score $3.7013$ |
| Tangibles | -2 | 3.5654 | 2 | 3.7100 |
| Faith | 3 | 3.5288 | - 1 | 3.7356 |
| Overall | 3.57 | 1 | $3.71$ |  |

Table 5.8 shows that the highest mean score with regard to Toyota customers' perception was the kindness dimension (3.6250) followed by tangibles (3.5654) and faith (3.5288), respectively. The highest mean score regarding Honda customers was faith (3.7356), followed by tangibles (3.7100) and kindness (3.7013) respectively. The overall mean scores with regard to perceived car service quality by both Toyota and Honda customers were 3.5731 and 3.7156 , respectively.

Table 5.9: Overall Mean Score and Ranking of 3 Dimension of Perceived Car Service Quality

| Service Quality <br> Dimensions | Perception |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Toyota | Honda | All Models |  |
|  | Mean | Mean <br> Score | Mean <br> Score | Mean Rank |
| Kindness | 3.6250 | 3.7013 | 3.6632 | 1 |
| Tangibles | 3.5654 | 3.7100 | 3.6377 | 2 |
| Faith | 3.5288 | 3.7356 | 3.6322 | 3 |

As observed from Table 5.9, the highest overall mean score regarding 3 dimensions of perceived car service quality was kindness (3.6632) followed by tangibles (3.6377) and faith (3.6322). Across all 3 dimensions of car after-sales service quality, Honda customers perceived higher levels of service quality.

### 5.6 Hypothesis Testing

In this section, the eight hypotheses, segmented into two groups, were analyzed. The first group, consisting of hypothesis one to four, focused on the comparison of perceived car after-sales service quality, satisfaction and loyalty between Toyota and Honda customers. The second group of hypotheses focused on the relationship among perceived car after-sales service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty for Toyota and Honda customers in Bangkok. Hypotheses five to eight made up this category. All hypotheses were tested using a significant level of 0.05 and 0.01 as the boundary to accept or reject the null hypotheses.

Group A: This group consists of four hypotheses comparing perceived car after-sales service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty between Toyota and Honda customers. Hypothesis one tested the difference in perceived car after-sales service quality between Toyota and Honda customers when determined by three dimensions. Hypothesis two examined the difference in satisfaction with after-sales service between Toyota and Honda customers. Hypothesis three focused on the difference in dealer after-sales loyalty between Toyota and Honda customers, and hypothesis four tested the difference in brand loyalty between Toyota and Honda custo mers.

## Hypothesis 1

$\mathrm{H}_{1 \mathrm{o}}$ : There is no statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers in Bangkok when determined by the kindness, tangibles and faith dimensions.
$\mathrm{H}_{1 \mathrm{a}}$ : There is a statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers in Bangkok when determined by the kindness, tangibles and faith dimensions.

Table 5.10: Independent Sample T-test analysis for difference in perceived car after-sales service quality between Toyota and Honda customers

| Variable of perception dimension <br> compared between Toyota and Honda <br> customers | Mean <br> difference | df | t | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: |
| Kindness | -0.7632 | 398 | -1.293 | .197 |
| Tangibles | -.14462 | 398 | -2.720 | .007 |
| Faith | -.20688 | 398 | -3.255 | .001 |

The independent samples $t$-test analysis showed in Table 5.10 indicates that out of the three variables of perceived car after-sales service quality, only the results of tangibles and faith, with significance results of .007 and .001 respectively, were less than $.05(.007<.05$ and $.001<.05$ respectively. This means that the null hypothesis was rejected. Consequently it can be inferred that there was a statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers when determined by tangibles and faith dimensions. The result regarding the kindness dimension shows a significance of .197 which is greater than $.05(.197>.05)$. This means that the null hypothesis failed to reject. By inference, there was no statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers when determined by the kindness dimension.

## Hypothesis 2

$\mathrm{H}_{20}$ : There is no statistically significant difference in satisfaction with after-sales service between Toyota and Honda customers in Bangkok.
$\mathrm{H}_{2 \mathrm{a}}$ : There is a statistically significant difference in satisfaction with after-sales service between Toyota and Honda customers in Bangkok.

Table 5.11: T-test for difference in satisfaction with after-sales service between Toyo ta and Honda Customers.


Table 5.11 indicates that there was a statistically significant difference in satisfaction with after-sales service between Toyota and Honda customers with a 2-tailed significance of .041 which is less than $.05(.041<.05)$. Accordingly, the null hypothesis was rejected. Consequently it can be explained that there was a statistically significant difference in satisfaction with after sales service between Toyota and Honda customers at the .05 level.

## Hypothesis 3

$\mathrm{H}_{30}$ : There is no statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers in Bangkok.
$\mathrm{H}_{3 \mathrm{a}}$ : There is a statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers in Bangkok.

Table 5.12: T-test for difference in dealer after-sales loyalty between Toyota and Honda customers.

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  | $t$-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Dealer Loyalty | Equal variances assumed |  | 1.105 | . 294 | -. 123 | 398 | . 902 | -. 00875 | $07126$ | -. 14884 | . 13134 |
|  | Equal variances not assumed |  |  | -. 123 | 397.449 | . 902 | -. 00875 | $07126$ | -. 14884 | . 13134 |

Table 5.12 indicates that there was no statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers with a 2-tailed significance of . 902 which is greater than $.05(.902<.05)$. Accordingly, the null hypothesis failed to reject, and there was no statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers at the .05 level.

## Hypothesis 4

$\mathrm{H}_{4 \mathrm{o}}$ : There is no statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok.
$\mathrm{H}_{4 \mathrm{a}}$ : There is a statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok.

Table 5.13: T-test for difference in brand loyalty between Toyota and Honda Customers.


Table 5.13 indicates that there was no statistically significant difference in brand loyalty between Toyota and Honda customers with a 2-tailed significance of .958 which is greater than $.05(.958<.05)$. Accordingly, the null hypothesis failed to reject, and there was no statistically significant difference in brand loyalty between Toyota and Honda customers at the .05 level.

Group B: This group tested the relationships among perceived car after-sales service quality, satisfaction with after-sales service quality, dealer after-sales service loyalty and brand loyalty for Toyota and Honda customers in Bangkok. This group consisted of hypothes is five, six, seven, eight and nine. Hypothesis five tested the relationship between perceived car aftersales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok. Hypothesis six focused on the relationship between satisfaction with after-sales service and dealer after-sales loyalty of Toyota and Honda customers in Bangkok. Hypothesis seven examined the relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok, while hypothesis eight focused on the effect of perceived car after-sales service quality, satisfaction with after-sales service and dealer aftersales loyalty on brand loyalty of Toyota customers in Bangkok. Hypothesis nine focused on the effect of perceived car after-sales service quality, satis faction with after-sales service and dealer after-sales loyalty on brand loyalty of Honda customers in Bangkok.

## Hypothesis 5

$\mathrm{H}_{50}$ : There is no statistically significant relation ship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok.
$\mathrm{H}_{5 \mathrm{a}}$ : There is a statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok.

Table 5.14: Analysis of the Relationship between Perceived Car After-Sales Service Quality and Satisfaction with After-Sales Service of Toyota and Honda Customers using Pearson's Correlation

Correlations

| car type |  | Perception | Satisfaction |
| :--- | :--- | ---: | ---: |
| Toyota | Perception | Pearson Correlation | 1 |
|  | Sig. (2-tailed) | .627 |  |
|  |  | N |  |
|  |  | Pearson Correlation | .000 |
|  | Satisfaction | Sig. (2-tailed) | .627 |
|  |  | N | .000 |


| Honda | Perception | Pearson Correlation | 1 | .752 |
| :---: | :--- | :--- | ---: | ---: |
|  | Sig. (2-tailed) |  | .000 |  |
|  | N | 200 | 200 |  |
|  | Satisfaction | Pearson Correlation | .752 | 1 |
|  | Sig. (2-tailed) | .000 |  |  |
|  | N | 200 | 200 |  |

${ }^{* *}$. Correlation is significant at the 0.01 level (2-tailed).

Table 5.14 shows the Pearson correlations analysis for Toyota and Honda customers. In the case of Toyota, the significance is equal to .000 which is less than $.01(.000<.01)$. Therefore, the null hypothesis was rejected, signifying that there was a statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service at the .01 level of significance. The value of .627 reveals that there was a medium positive relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota customers. The two variables are in the same direction. Thus, the higher perception users have, the higher satisfaction they will have at. 627 .

For Honda customers, the significance is equal to .000 which is less than $.01(.000<$ .01). Therefore, the null hypothesis was rejected signifying that there was a statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service at the .01 level of significance. The value of .752 indicates that there was a strong positive relationship between perceived car service quality and satisfaction with aftersales service of Honda customers. The two variables are in the same direction and this means that if users have a higher perception, they will have higher satisfaction at .752 .

## Hypothesis 6

$\mathrm{H}_{60}$ : There is no statistically significant relationship between satisfaction with aftersales service and dealer after-sales loyalty of Toyota and Honda customers in Bangkok.
$\mathrm{H}_{6 \mathrm{a}}$ : There is a statistically significant relationship between satisfaction with aftersales service and dealer after-sales loyalty of Toyota and Honda customers in Bangkok.

Table 5.15: Analysis of the Relationship between Satisfaction with After-Sales Service and Dealer After-Sales Loyalty of Toyo ta and Honda Customers

Correlations

| Car type |  | Satisfaction | Dealer Loyalty |
| :--- | :--- | ---: | ---: |
| Toyota | Satisfaction | Pearson Correlation | 1 |
|  |  | Sig. (2-tailed) | -.044 |
|  |  | N |  |
|  |  | Pearson Correlation | .535 |
|  | Dealer Loyalty | Sig. (2-tailed) | -.044 |
|  |  | N | .535 |

*. Correlation is significant at the 0.05 level (2-tailed).

The analysis of Pearson correlations in Table 5.15 indicates that for Toyota customers, the significance is equal to .535 which is greater than .05 (.535>.05). Therefore, the null hypothesis failed to reject, signifying that there was no relationship between satisfaction with after-sales service and dealer after-sales service loyalty at the .05 level of significance.

The Pearson correlation analysis in Table 5.15 indicates also that for Honda, the significance is .015 which is less than $.05(.015<.05)$. Accordingly, the null hypothesis was rejected, implying that there was a relationship between satisfaction with after-sales service and dealer after-sales service loyalty at the .05 level of significance. The value of -.172 implies that there was a weak negative relationship between satisfaction with after-sales service and dealer after-sales service loyalty. This means that although customers may be satisfied with the dealer's services, they may not be loyal to the dealer.

## Hypothesis 7

$\mathrm{H}_{70}$ : There is no statistically significant relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok.
$\mathrm{H}_{7 \mathrm{a}}$ : There is a statistically significant relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok.

Table 5.15: Analysis of the Relationship Between dealer after-sales loyalty and brand loyalty of Toyota and Honda Customers

| Correlations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| car type |  |  | Dealer Loyalty | Brand Loyalty |
| Toyota | Dealer Loyalty | Pearson Correlation Sig. (2-tailed) <br> N | 1 ${ }^{1}$ | .258 <br> 000 <br> .000 <br> 200 |
|  | Brand Loyalty | Pearson Correlation Sig. (2-tailed) N | $\begin{gathered} .258^{* *} \\ .000 \\ 200 \end{gathered}$ | 1 200 |
| Honda | Dealer Loyalty | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} 1 \\ 200 \end{array}$ | $.263^{-*}$ .000 200 |
|  | Brand Loyalty | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .263 \\ .000 \\ 200 \end{array}$ | 200 |

**. Correlation is significant at the 0.01 level (2-tailed).

For Toyota customers, the analysis of Pearson correlations indicates that there is a significance of .000 which is less than $.01(.000<.01)$. Therefore, the null hypothesis was rejected signifying that there was a statistically significant relationship between dealer aftersales loyalty and brand loyalty for Toyota customers. The value of .258 means that there is a weak positive relationship between dealer after-sales loyalty and brand loyalty for Toyota customers. This means that although customers may be loyal to the dealer for after-sales service, they are weakly inclined to be loyal to the brand as a result, at .258 .

In the case of Honda customers, the Pearson correlations analysis shows a significance of .000 which is less than $.01(.000<.01)$. Therefore, the null hypothesis was rejected implying that there was a statistically significant relationship between dealer aftersales loyalty and brand loyalty for Honda customers. The value of .263 means that there is a weak positive relationship between dealer after-sales loyalty and brand loyalty of Honda customers. This means that although customers may be loyal to the dealer for after-sales service, they are weakly inclined to be loyal to the brand as a result, at .263 .

## Hypothesis 8

$\mathrm{H}_{80}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales loyalty have no statistically significant effect on brand loyalty of Toyota customers in Bangkok.
$\mathrm{H}_{8 \mathrm{a}}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales loyalty have a statistically significant effect on brand loyalty of Toyota customers in Bangkok.

The results of the Multiple Regression Analysis comprise three sets of tables, including an ANOVA, a regression model summary, and a summary of the coefficients of the regression model, as follows:

Table 5.16: ANOVA results for Perception, Satisfaction and Dealer After-Sales Loyalty
ANOVA ${ }^{\circ}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 14.528 | 3 | 4.843 | 5.721 | $.001^{2}$ |
|  | Residual | 165.917 | 196 | .847 |  |  |
|  | Total | 180.445 | 199 |  |  |  |

a. Predictors: (Constant), Dealer Loyalty, Satisfaction, Perception
b. Dependent Variable: Brand Loyalty

As Table 5.16 reports, ANOVA assessed the significance of the model for Toyota customers.

The significance level was less than $.05(.001<.05)$ which indicated that the model was significant and the null hypothesis was rejected. This means that at least one of the variables of perceived car service quality, satisfaction with after-sales service or dealer aftersales loyalty explained the dependent variable brand loyalty.

Table 5.17: Model Summary for Regression Model for Toyota Customers

| Model Summary |
| :--- | :---: | ---: | ---: | ---: |
| Model R R Square Adjusted R <br> Square <br> 1 $.284^{\mathrm{a}}$ .081 Std. Error of the <br> Estimate |

a. Predictors: (Constant), Dealer Loyalty, Satisfaction, Perception

Table 5.17 shows how much of the variance of the dependent variable was explained by the various independent variables. For Toyota customers, the R Square value of .081 shows that $8 \%$ of the variance of brand loyalty was explained or influenced by differences in the levels of perceived car service quality, satisfaction with after-sales service and dealer after-sales loyalty for Toyo ta customers.

Table 5.18: Multiple Regression Coefficients
Coefficients ${ }^{\text {a }}$

a. Dependent Variable: Brand Loyalty

Table 5.18 shows the standardized regression coefficients which provide a measure of the contribution of each variable to the regression model. The beta weights are the regression coefficients for standardized data which help to determine the relative importance of the independent variables to the given model formed in the regression equation. It measures how strongly each independent variable influences the dependent variable, relative to the other independent variables. A higher beta value indicates a greater impact of the independent variable on the dependent variable.

For Toyota customers, the coefficients for perceived car after-sales service quality and satisfaction with after-sales service quality yielded a significance greater than $.05(.194>.05$ and $.094>.05$ respectively). Therefore, these coefficients do not significantly impact the dependent variable at the .05 significance level. However, the coefficient for dealer loyalty yielded a significance of .001 , less than .05 . Consequently, this implied that the variable dealer loyalty significantly influenced the dependent variable at the .05 significance level.

## Hypothesis 9

$\mathrm{H}_{90}$ : Perceived car after-sales service quality, satisfaction with after-sales service, and dealer after-sales service loyalty have no statistically significant effect on brand loyalty of Honda customers in Bangkok.
$\mathrm{H}_{9 \mathrm{a}}$ : Perceived car after-sales service quality, satisfaction with after-sales service and dealer after-sales loyalty have a statistically significant effect on brand loyalty of Honda customers in Bangkok.

The results of the Multiple Regression Analysis comprise three sets of tables, including an ANOVA, a regression model summary, and a summary of the coefficients of the regression model, as follows:

Table 5.19: ANOVA results for Perception, Satisfaction and Dealer After-Sales Loyalty
ANOVA ${ }^{\text {D }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 14.694 | 3 | 4.898 | 5.952 | $.001^{2}$ |
|  | Residual | 161.306 | 196 | .823 |  |  |
|  | Total | 176.000 | 199 |  |  |  |

a. Predictors: (Constant), Dealer Loyalty, Satisfaction, Perception
b. Dependent Variable: Brand Loyalty

As Table 5.19 shows, ANOVA explores the significance of the regression model for Honda customers.

For Honda customers, the significance level was less than .05 (.001< .05), which indicates that the model was significant and the null hypothesis was subsequently rejected. Therefore, at least one variable of perceived car service quality, satisfaction with after-sales service or dealer after-sales loyalty explained the dependent variable brand loyalty.
Table 5.20: Model Summary for Regression Model for Honda Customers
Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the <br> Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.289^{a}$ | .083 | .069 | .90719 |

a. Predictors: (Constant), Dealer Loyalty, Satisfaction, Perception

Table 5.20 shows how much of the variance of the dependent variable was explained by the various independent variables. For Honda customers, the R Square value of . 083 reveals that $8 \%$ of the variance of brand loyalty was explained or influenced by differences in levels of perceived car service quality, satisfaction with after-sales service and dealer aftersales loyalty.

Table 5.21: Multiple Regression Coefficients
Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients |  | Sig. | Correlations |  |  | Collinearity Statistics |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. <br> Error | Beta |  |  | Zeroorder | Parial | Part | Tolerance | VIF |
| 1 | (Constant) | 2.059 | . 573 |  | 3.596 | . 000 |  |  |  |  |  |
|  | Perception | -. 237 | . 189 | -. 131 | -1.256 | . 211 | -. 045 | -. 089 | -. 086 | . 430 | 2.328 |
|  | Satisfaction | 225 | . 128 | . 183 | 1.763 | . 079 | . 038 | . 125 | . 121 | . 433 | 2.309 |
|  | Dealer Loyalty | . 348 | . 090 | . 269 | 3.852 | . 000 | . 263 | . 265 | . 263 | . 961 | 1.041 |

a. Dependent Variable: Brand Loyalty

Table 5.21 shows the standardized regression coefficients which yielded a measure of the contribution of each variable to the regression model. The beta weights are the regression coefficients for standardized data, which help determine the relative importance of the independent variables to the given model formed in the regression equation. It measures how strongly each independent variable influences the dependent variable, relative to the other independent variables. A higher beta value indicates a greater impact of the independent variable on the dependent variable.

In the case of Honda customers, the coefficients for perceived car after-sales service quality and satisfaction with after-sales service quality registered a significance greater than .05 ( $.211>.05$, and $.079>.05$ respectively). Therefore, these coefficients do not significantly impact the dependent variable at the .05 significance level. The coefficient for dealer loyalty, however, yielded a significance of .000 , less than $.05(.000<.05)$. This implied that the variable dealer loyalty significantly influenced the dependent variable at the .05 significance level.

Table 5.20: Summary of Hypothesis Testing

| Null Hypothesis Statement | Statistic Test | Level of Significance | Result |
| :---: | :---: | :---: | :---: |
| $\mathrm{H}_{10}$ : There is no statistically significant difference in perceived car aftersales service quality between Toyota and Honda customers in Bangkok when determined by the kindness, tangibles and faith dimensions. | T-test | Kindness: 197 <br> Tangibles:.007 <br> Faith: . 001 | Failed to reject Ho <br> Reject Ho <br> Reject Ho |
| $\mathrm{H}_{20}$ : There is no statistically significant difference in satisfaction with after-sales service between Toyota and Honda customers in Bangkok. | T- test | $.041$ | Reject Ho |
| $\mathrm{H}_{30}$ : There is no statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers in Bangkok. | T- test | $.902$ | Failed to reject Ho |
| $\mathrm{H}_{40}$ : There is no statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok. | $\begin{aligned} & \text { T- test } \\ & \text { 1ลัยถั } \end{aligned}$ | (g) 9.958 | Failed to reject Ho |
| $\mathrm{H}_{50}$ : There is no statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers | Pearson's <br> Correlation | Toyota: . 627 <br> Honda: . 752 | Reject Ho |


| Null Hypothesis Statement <br> $\mathrm{H}_{60}$ : There is no statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Toyota and Honda customers. | Statistic <br> Test <br> Pearson's <br> Correlation | Level of Significance <br> Toyota: . 535 <br> Honda: . 015 | Result <br> Failed to reject Ho <br> Reject Ho |
| :---: | :---: | :---: | :---: |
| $\mathrm{H}_{7 \mathrm{o}}$ : There is no statistically significant relationship between dealer aftersales loyalty and brand loyalty of Toyota and Honda customers. | Pearson's <br> Correlation | .000 | Reject Ho |
| $\mathrm{H}_{80}$ : Dealer after-sales loyalty has a statistically significant effect on brand loyalty of Toyota customers. However, perceived car after-sales service quality and satisfaction with after-sales service have no statistically significant effect on brand loyalty of Toyota customers. | Multiple <br> Regression | $.001$ | Reject Ho (Dealer After-Sales loyalty) |
| $\mathrm{H}_{90}$ : Dealer after-sales loyalty has a statistically significant effect on brand loyalty of Honda customers. However, perceived car after-sales service quality and satisfaction with after-sales service have no statistically significant effect on brand loyalty of Honda customers. | Multiple <br> Regression | $.001$ | Reject Ho (Dealer After-Sales loyalty) |

## CHAPTER 6

## SUMMARY, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

The statistical results of the demographic and the hypotheses analysis are presented and discussed in this chapter which is divided into seven parts: the first section summarizes the demographic factors, the second one the overall satisfaction with after-sales service, dealer after-sales loyalty, brand loyalty, and three dimensions of car after-sales service quality, and the third one hypotheses testing. The fourth section discusses the results and their implications, while the fifth section presents the conclusions. In the sixth section some recommendations are made and the last section provides suggestions for future study.

### 6.1 Summary of Demographic Factors

The general objective of this research was to investigate and compare the differences between Toyota and Honda customers in Bangkok in terms of perception of car after-sales service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty. Additionally, this study sought to investigate the relationships between car after-sales service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok. The researcher collected data from 400 respondents, 200 Toyota and 200 Honda customers. The highest percentages for each demographic variable and each group are presented in Table 6.1, while the overall highest percentages are shown in Table 6.2, as follows:

Table 6.1: Summary of Majority in Percentage of Two Different Customer Group Profiles

| Customer Profile | Majority in Percentage |  |
| :--- | :--- | :--- |
|  | Toyota | Honda |
| Gender | Female (53\%) | Female (51.5\%) |
| Age | $21-30$ years (41.5\%) | $21-30$ years (42\%) |
| Occupation | Employee (60.5\%) | Employee (74.5\%) |
| Income level | $20,001-40,000$ Baht (42\%) | $20,001-40,000$ Baht (39\%) |

As Table 6.1 shows, the majority of Toyota customers were female ( $53 \%$ ) and most of them aged between 21 and 30 years old ( $41.5 \%$ ). The majority of them was employees $(60.5 \%)$ and earned a monthly income in the range $20,001-40,000$ Baht range (42\%).

As to the Honda customers, females represented the highest percentage $51.5 \%$. The highest percentage with regard to age level pertained to those aged $21-30$ years old (42\%). Employees made up a majority of the Honda customers (74.5\%) and the majority of respondents earned monthly income between 20,001-40,000 Baht (39\%).

Table 6.2: Summary of Overall Majority in Frequency and Percentage of All Respondents

| Customer Profile | Majority in Percentage of All Respondents |  |  |
| :--- | :---: | :---: | :---: |
|  | Variable | Frequency | Percentage (\%) |
|  | Female | 209 | 52.2 |
| Occupation | $21-30$ years | 167 | 41.8 |
| Income level | Employee | 270 | 67.5 |

The overall demographic factors presented in Table 6.2 indicate that females represented the highest percentage of respondents with $52.2 \%$ and most of them aged between $21-30$ years ( $41.8 \%$ ). Most of the respondents were employees ( $67.5 \%$ ) who earned an in come between $20,001-40,000$ Baht.
6.2 Summary of Satisfaction with After-Sales Service, Dealer After-Sales Loyalty, Brand Loyalty and Perceived Car After-Sales Service Quality.

Table 6.3: Summary of Satisfaction with After-Sales Service

| Car brand | * Means of Satisfaction with After - Sales Service Factors    <br> Wise choice to Right thing to Facility exact for Overall Mean <br> purchase service purchase service service  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Toyota | 3.69 | 3.59 | 3.70 | 3.66 |
| Honda | 3.77 | 3.80 | 3.89 | 3.81 |
| Overall Means | 3.73 | 3.69 | 3.80 |  |

As Table 6.3 and Figure 6.1 show, it is evident that Honda customers expressed greater satisfaction with the after-sales service at 3.81 when compared with Toyota customers
at 3.66. Customers of both brands, however, expressed high levels of satisfaction with the facilities of the dealerships.

Figure 6.1: Graphic presentation of summary of Toyota and Honda customers' satisfaction


Figure 6.1 makes of clear terms that Honda Customers have the higher means of all satisfaction measures compared to Toyota customers. Given that the means for both brands is above three, the researcher can conclude that customers of both brands were generally satisfied with the after-sales services they received, with Honda customers expressing greater satisfaction with Honda's after-sales services. The theory on service quality suggests that satisfaction is a result of the perception of service quality and implies that Honda provides better quality after-sales service than Toyota.

Table 6.4: Summary of Dealer After-Sales Service Loyalty

| Car brand | Means of Dealer After-Sales Service Loyalty |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Patronize <br> another <br> dealership <br> when available | Would make <br> little <br> difference to <br> choose another <br> dealer | Will patronize <br> another <br> favourite <br> dealership | Might change <br> dealer upon <br> receiving <br> information | Overall <br> Mean |
|  | 2.74 | 2.66 | 2.60 | 2.74 | 2.69 |
|  | 2.72 | 2.71 | 2.63 | 2.73 | 2.70 |
| Overall <br> Mean | 2.73 | 2.68 | 2.61 | 2.73 |  |

As Table 6.4 shows, Toyota customers had the lower overall mean of 2.69 with regard to dealer after-sales loyalty compared to Honda customers with 2.70 . It can be inferred, therefore, that Toyota customers intend to be loyal to their after-sales service provider more than Honda customers. Customers of both brands disagreed most with the statement that they would patronize another favourite dealership, if their preferred dealerships weren't available.

Figure 6.2: Graphic Presentation of Summary of Dealer After-Sales Loyalty of customers of Toyota and Honda


The graph in Figure 6.2 indicates the difference in dealer after-sales loyalty between Toyota and Honda customers. Toyota customers recorded the lower means for the second and third items with regard to dealer after-sales loyalty, while Honda customers recorded the lower means for the first and last items. Overall, the means are lower than three and indicate a commitment to be loyal to the preferred dealer's after-sales service.

Table 6.5: Summary of Brand Loyalty of Toyota and Honda customers

| Car brand | Means of Brand Loyalty |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Patronize <br> another brand <br> when available | Would make <br> little <br> difference to <br> choose another <br> brand | Will patronize <br> another <br> favourite <br> brand | Might change <br> brand upon <br> receiving <br> information | Overall <br> Mean |
|  | 3.21 | 2.76 | 2.89 | 3.03 | 2.97 |
| Honda | 3.16 | 2.77 | 3.01 | 2.96 | 2.98 |
| Overall <br> Means | 3.19 | 2.76 | 2.95 | 3.00 |  |

As Table 6.5 shows, Toyota customers had the lower overall mean with regard to brand loyalty at 2.97 compared to Honda customers at 2.98 . Customers of both brands however disagreed most that it would make little difference to choose another brand, if their preferred brand weren't available. This indicates, therefore, a willingness to be loyal to their preferred brands. Overall, Toyota customers expressed higher loyalty intent than Honda customers.

Figure 6.3: Graphic Presentation of Summary of Customers’ Brand Loyalty to Toyota and Honda


As shown in Figure 6.3 Honda customers recorded lower levels of brand loyalty in the first and last measures, while Toyota customers recorded lower levels of brand loyalty in the second and third measures. Overall, loyalty measures for customers of both brands were between 2.7 and 3.2, indicating a slightly better than average intention to be loyal to their preferred brand.

Table 6.6: Summary of Mean Score and Ranking of Each Perceived Car Service Quality Dimensions and Overall Perception of Customers

| Service Quality <br> Dimensions | Perception |  |  |
| :---: | :---: | :---: | :---: |
|  | Toyota <br> Mean Score <br> (Rank) | Mean Score <br> (Rank) | All Customers <br> Mean Score <br> (Rank) |
|  | $3.6250(1)$ | $3.7013(3)$ | $3.6632(1)$ |
| Tangibles | $3.5654(2)$ | $3.7100(2)$ | $3.6377(2)$ |
| Faith | $3.5288(3)$ | $3.7356(1)$ | $3.6322(3)$ |
| Overall Perception | 3.5731 | 3.7156 | 3.6444 |

As indicated in Table 6.6, the highest mean among the three dimensions of perceived car service quality for customers of both brands was kindness while the lowest mean was faith. For Toyota customers, the dimensions of kindness, tangibles and faith ranked first, second, and third respectively, while for Honda customers, faith, tangibles and kindness ranked first, second and third respectively.

Figure 6.4: Summary of Mean Score and Ranking of Each Perceived Car After-Sales Service Quality Dimension


In Figure 6.4, the graph clearly highlights the differences in perceived car after-sales service quality levels between Toyota and Honda customers. Honda customers have higher perception when compared to Toyota. However, all customers generally perceive high levels of car after-sales service quality given the means between 3.5 and 3.75 .

### 6.3 Summary of Hypothesis Testing

The research investigated nine hypotheses from the research objectives and questions. The statistical techniques employed in the analysis of data were the Independent Samples T-Test, Pearson Correlation, and Multiple Linear Regression. A summary of the results of all nine hypotheses is provided as follows:

Hypo thesis one: There is no statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers when determined by kindness. However, there is a statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers when determined by tangibles and faith dimensions.

Hypo thesis two: There is a statistically significant difference in satisfaction with after-sales service between Toyota and Honda customers in Bangkok.

Hypo thesis three: There is no statistically significant difference in dealer after-sales loyalty between Toyota and Honda customers in Ban gkok.

Hypo thesis four: There is no statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok.

Hypo thesis five: There is a statistically significant relationship between perceived car aftersales service quality and satisfaction with after-sales service of Toyota and Honda customers in Bangkok

Hypo thesis six: There is no statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Toyota customers in Bangkok. However, there is a statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Honda customers in Bangkok.

Hypo thesis seven: There is a statistically significant relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers in Bangkok.

Hypo thesis eight: Dealer after-sales loyalty has a statistically significant effect on brand loyalty of Toyota customers. However, perceived car after-sales service quality and satisfaction with after-sales service have no statistically significant effect on brand loyalty of Toyota customers.

Hypothesis nine: Dealer after-sales loyalty has a statistically significant effect on brand loyalty of Honda customers. However, perceived car after-sales service quality and satisfaction with after-sales service have no statistically significant effect on brand loyalty of Honda customers.

### 6.4 Research Findings, Discu ssion and Implication

Using data collected by a research instrument measuring perceived car after-sales service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty, the research implications from the subsequent analysis are discussed below:

## Demographic Factors by Group

The descriptive analysis of 200 Toyota and 200 Honda customers revealed that the majority of Toyota customers who patronized the authorized after-sales service dealership were female aged between 21-30 years. The highest percentage was employees with an income level of 20,001-40,000 Baht. Based on these results and from observations during data collection, it can be concluded that a large number of Toyota customers were young entry to mid-level employees in the private sector.

From these results, it can be inferred that the majority of Toyota customers, being young and earning average salaries, may drive entry-level and cheaper models, for example Toyota Yaris, Vios and Altis models. This indicates that there is a potential market for compact cars to which it should give attention. Additionally, these results underscore Toyota positioning as a maker of mass market and affordable vehicles. This may be the reason for which it holds a higher market share than its competitor Honda in the Thai auto industry. Overall demographic factors indicate that a majority of respondents earn incomes in the 20,001 - 40,000 Baht range, the range in which Toyota has most of its customers. The demographic factors for Toyota customers also reveal the pricing strategies that Toyota should adopt towards its customers, such as offering price discounts and other low-priced packages to encourage this group of customers to patronize its products and services more.

Most of the Honda customers who patronized the after-sales service of its dealerships were female aged between 21-30 years. Again, the highest percentage of employment was employees in the private sector who earned between 20,001 - 40,000 Baht. From these results, it can be inferred that Honda customers were young entry to mid- level employees in
the private sector. Honda customers have earnings in a similar income bracket as Toyota customers. This seems to emphasize the fact that Honda is in the same competitive group as Toyota, competing for customers of a similar demographic. However, Honda cars are positioned as sporty and more fun-to-drive. Interestingly, results from the research show females to be the majority of respondents for Honda. It is interesting, therefore, to note that more and more young women are developing a preference for sportier and more-fun-to-drive cars. These results give an idea as to which models are more popular with customers. These include the entry to mid- level models, the Honda Jazz, City and Civic models. The fact that females make up a larger majority of its customer base, according to the data collected, suggests that they, more than males should attract a greater focus of marketing campaigns and other promotional efforts of the brand. Additionally, since its customers earn similar incomes to Toyota customers, Honda needs to emphasize its differentiated product offering of sporty and fun-to-drive cars. Again, because of the average earnings of its customers, appropriate pricing strategies suited to this demographic need to be implemented, such as discounts and other low-priced services.

## Overall Demographic Factors

According to the descriptive analysis of the overall demographic factors from the 400 respondents, most were females aged between $21-30$ years. In addition, most customers were employees with an income of 20,001 - 40,000 Baht. Comparing Toyota and Honda customers by demographic factors reveals similarities across all factors measured. It is interesting to note from data collected for the research that females made up the majority of respondents for both customers. This is not surprising as there is the general understanding in Thailand that females make up a greater percentage of the population than men. Based on these results, both manufacturers have an idea of the target market it should focus on and the particular models that are well suited to this market. Basically, these are entry-level compact and sub compact cars which are affordable to customers with the aforementioned demographic factors. Additionally, the pricing and promotion of their products and services should reflect the below-middle-income status of the customer bases of both companies.

Satisfaction with after-sales service, dealer after-sales loyalty, brand loyalty and three dimensions of perceived car after-sales service quality

Satisfaction with After-Sales Service: indications from the research findings were that Honda customers were more satisfied with after-sales service when compared to Toyota customers. However, Toyota and Honda customers were both highly satisfied with the facilities of the dealership. For Toyota customers, the variable with the lowest total mean was "right thing to purchase service," while for Honda customers, the variable with the lowest total mean was "wise choice to purchase service".

The means scores indicate a general satisfaction with the after-sales services of both brands. Honda customers, however, were more satisfied with its after-sales service than Toyota customers. The service quality literature suggests satisfaction as a function of perceived service quality (Mai, 2005). It can be inferred then, that Honda provides higher levels of service quality to its customers. This is evident in the higher overall perception scores of Honda customers than Toyota customers. Of the three satisfaction measures, Honda customers were most satisfied with the facilities of the dealership. The "facilities of the dealership" constitutes the tangibles dimension of SERVPERF and suggests, therefore, that customers were most satisfied with their perceptions of this "tangible" aspect of the aftersales service.

This result is consistent with the findings of prior studies (Parasuraman et al., 1985, 1988; Frost and Kumar, 2000) that tangibles is a major factor of service quality and also a critical element in service management. These findings suggest that Honda customers are more likely to exhibit loyalty behaviours than Toyota customers. Richins (1983) argued that satisfied customers may turn out to be repeat buyers who purchase multiple automobiles of a particular brand and keep returning to a specific dealer for all services they require throughout their lifetime.

Dealer After-Sales Loyalty: the results indicate that Toyota customers had the lower mean of dealer after-sales service loyalty compared to Honda customers and therefore the higher intention to be loyal to the dealership than Honda customers. Of the four dealer loyalty measures, customers of both brands disagreed most that they would patronize another favourite dealership if their preferred dealership weren't available. Given that scores for customers of both brands were lower than three, it can be further concluded that there's a
general intention to be loyal to the preferred dealerships of both brands. However, the result that Toyota customers expressed higher intention to be loyal to their dealership than Honda customers is interesting, given that Honda customers were more satisfied with their aftersales service than Toyota. This finding is not without support in the literature, as Oliver (1997) determined in his study that satisfaction may not be a central component to loyalty, especially where loyalty has already been developed. Additionally, he found out instances where satisfaction may be experienced without loyalty, and loyalty may be developed without satisfaction. It may be inferred then, that Toyota customers, in expressing higher intentions to be loyal, but lower satisfaction levels, have developed loyalty intentions apart from their experience with the after-sales service, due to other factors. These may include warranty provisions and proximity to dealership among other factors. For Honda customers, their weaker loyalty score, though expressing higher satisfaction may indicate that though satisfied with their service experience they may require some better experience to develop loyalty, such as price etc.

Brand Loyalty: the research findings indicated that overall, Toyota customers had the lower mean of brand loyalty compared to Honda customers, and thus intended to be more loyal than Honda customers. Of the four brand loyalty measures, customers of both brands disagreed most that it would make little difference to choose another brand if their preferred brand were not available. However, scores of brand loyalty were close to neutral for both brands' customers suggesting that although customers were generally satisfied with the aftersales service and willing to exhibit dealer after-sales loyalty, they did not exhibit commensurate willingness to be loyal to their respective brands. This finding may allude to the influence of other factors on brand loyalty not covered in this research and is consistent with findings of Bloemer and Pauwels (1998), whose study showed that satisfaction with the car, is the most significant antecedent of brand loyalty. Yu et. al., (2005) also found that aside from the influence of overall satisfaction, customer complaint was another determinant of brand loyalty for customers of Lexus in Taiwan. For Toyota customers, loyalty to the brand may be due to their satisfaction with the car, as Toyota has a long standing reputation for quality and reliable vehicles. Thus, a less than stellar service experience at a dealership is less likely to diminish loyalty to the brand. The influence of other antecedents of brand loyalty will therefore need to be considered in future research.

Three dimensions of Perceived Car After-Sales Service Quality and Overall Perception: the results showed that the dimension of perceived car service quality with the highest means for Toyota customers was kindness and the dimension with the lowest mean was faith. The factor kindness captures all the dimensions of SERVPERF except tangibles, which are related to the human performance component of service (Bouman and van der Wiele, 1992). This is a positive result for the after-sales service of Toyota, particularly the staff and service personnel whose services make up the human performance component of the service. Bouman and van der Wiele (1992) found this dimension to possess the most significant relationship to loyalty measures. In the mean analysis of dealer after-sales loyalty and brand loyalty Toyota customers expressed higher loyalty intentions than Toyota and this may be alluded to higher perceptions of kindness than Honda.

For Honda customers, the dimension with the highest mean was faith, and the dimension with the lowest was kindness. The faith dimension refers to the trust that customers have in the dealer to perform the service just as promised (Bouman and van der Wiele, 1992). It is also described as "the way a car service business gives the customer insight into the actual car servicing process, and this information produces faith and reassurance (Bouman and van der Wiele, 1992). This outcome implies that Honda dealerships go the extra mile to assure customers that the service they requested was exactly what was performed on their vehicle, and therefore the customers have a high level of trust in the dealerships. Although this is commendable, results from the Bouman and van der Wiele's (1992) study show that the influence of faith on loyalty measures is insignificant, and so for Honda, this may not translate into dealer after-sales loyalty. Regarding the dimension of kindness, which influences loyalty measures more, Honda customers perceived lower levels than Toyota customers, which may be a reason for their lower loyalty intention to ward dealer and brand. This result may suggest a downplaying of the importance of the kindness dimension to satisfaction with after-sales service. It may be assumed that Honda dealerships place a greater emphasis on technical factors related to the actual car service, which contribute to the faith dimension, more than those not directly related to it such as kindness.

Overall, the kindness dimension had the highest mean among other dimensions, which signifies that both companies rated well in the performance of the human component of service. Since this dimension is the most important determinant of loyalty measures, as determined by Bouman and van der Wiele (1992), the researcher concluded that customers of

Toyota and Honda are more inclined to be loyal to their preferred dealership and brand. This result is in keeping with Bouman and van der Wiele's (1992) finding about the importance of the kindness dimension to loyalty measures. However, it is interesting to note that evidence from other studies (Parasuraman et a., 1985, 1988 and Frost and Kumar, 2000), highlighting the importance of tangibles in service quality was not found in this research, since the tangibles dimension ranked second among the three dimensions of perceived car after-sales service quality. This shows that the relative importance of service quality dimensions of the car service industry may be different from one industry to another. Thus, although tangibles seems to be the most important service quality dimension in other industries, in the car service industry in Thailand, kindness, which covers all other SERVPERF dimension except tangibles, is of the greatest importance.


## Hypo theses

Group A. Comparing perceived car after-sales service quality, satisfaction with aftersales service, dealer after-sales loyalty and brand loyalty between Toyota and Honda customers (hypothesis 1-4).

Hypo thesis one ( H 1 ): The researcher determined that there was no significant difference in perceived car after-sales service quality between Toyota and Honda customers when determined by kindness. However, there was a statistically significant difference in perceived car after-sales service quality between Toyota and Honda customers when determined by tangibles and faith. It may be noted that for both dimensions of tangibles and faith, Honda customers' perceptions were higher than To yota customers' perceptions.

One reason for the absence of difference in kindness dimension of perceived car aftersales service quality may be the collectivist culture of Thai society. According to Hofstede's cultural dimensions, a collectivist society engenders strong relationships where everyone is responsible for other members belonging to the group. For Thais in particular, a generous nature and pleasant manners are highly regarded. Kindness, which relates to the human or relational component of the service, captures these cultural nuances of Thai society and may thus influence the values held by staffs of Toyota and Honda customers, and how this service dimension is delivered and perceived.

It is expected that there will be a difference in perceptions of tangibles and faith dimensions between Toyota and Honda customers. Different companies employ different service strategies and policies in order to gain a competitive advantage in the market place. Ehinlanwo and Zairi (1996) observed that the main activities in the marketing system employed in after-sales service were centered on the "policies, processes and strategies", which the producers used to make sure their dealerships were in readiness and had the ability to satisfy customers. Six producer policies were identified as crucial to the after-sales service delivery: product policies, price policies, environmental policies, promotion policies, distribution policies and service policies. Each company will have different approaches towards these policies and these will, therefore, account for differences in perception of car service quality of after-sales service establishments.

Hypothesis two (H2): Results from the hypothesis test indicated a statistically significant difference in satisfaction with after-sales service between Toyota and Honda customers in Bangkok.

The literature defines satisfaction as an emotional response to the experiences provided by and associated with particular products or services purchase, retail outlets (Westbrook and Reily, 1983). Although customers of both brands are satisfied with the aftersales services of their preferred brands, Honda customers expressed higher levels of satisfaction than Toyota customers. The theory on service quality suggests that satisfaction is a function of the perception of service quality and thus it can be implied that Honda provides better quality after-sales service.

Hypo thesis three (H3): Based on results of the study, there was no difference in dealer aftersales loyalty between Toyota and Honda customers in Bangkok.

Loyalty is defined as a deeply held commitment to rebuy a preferred product or service repeatedly in the future, resulting in consistent same-brand or same brand-set buying, in spite of the influence of the situation and marketing attempts (Oliver, 1999). It can be concluded that customers of both brands are strongly committed to their preferred after-sales service dealerships.

Hypothesis four (H4): As for hypothesis four, the results of the study showed that there was no statistically significant difference in brand loyalty between Toyota and Honda customers in Bangkok.

It can be inferred that customers of both Toyota and Honda held a strong commitment to the products of their respective brands. Given that Toyota and Honda are positioned differently in the market, Toyota as a mass market vehicle, and Honda as a sporty, fun-todrive car, the researcher is inclined to believe that customers of Toyota and Honda may hold feelings of strong loyalty to their preferred brands for these and other reasons.

Group B. To test the relationship between perceived car after-sales service quality, satisfaction with after-sales service quality, dealer after-sales loyalty and brand loyalty among Toyota and Honda customers in Bangkok (hypothesis 5-9).

Hypo thesis five (H5): The results of the study determined that there was a statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service of Toyota and Honda customers.

The results of this hypothesis test are in line with evidence in the literature supporting a relationship between perceived service quality and satisfaction. Olorunniwo et. al (2006) pointed out that there doesn't appear to be a clear message on the causal relationship between service quality and satisfaction. Brady and Robertson (2001) also observed that one school of thought maintain satisfaction as influencing service quality whereas another group which champions the antecedence of service quality to satisfaction argued that since service quality is a cognitive evaluation, a positive perception of service quality can lead to satisfaction. Chwo-Ming et.al. (2005) found out in their study of perceived quality, satisfaction and loyalty of Lexus in Taiwan, that perceived quality was the only construct that had a positive and direct relation to customer satisfaction. Additionally, the research by Savidas et. al (2000) found service quality to influence satisfaction with retail stores. The findings of this study with regard to the influence of perceived car after-sales service quality on satisfaction with after-sales service are consistent with the literature and findings of previous studies that perceived service quality is an antecedent of satisfaction.

For Toyota customers, the positive correlation between these two variables was medium, but high for Honda customers. Honda customers perceived higher levels of service
quality and thus consequently expressed higher levels of satisfaction as shown in the higher correlation value of 0.752 and the mean analysis of satisfaction. As customers of both brands perceived positive levels of service quality in after-sales service, this resulted in expressions of satisfaction with the service performance at their preferred dealership. Thus, it is evident that the more customers perceive high levels of service quality in their dealership, the more satisfied they will be.

Hypo thesis six (H6): According to results obtained from the study, there was no statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Toyota customers, whereas there was a statistically significant relationship between satisfaction with after-sales service and dealer after-sales loyalty of Honda customers

The results for Toyota customers are cons istent with Oliver's (1999) identification of six various possible relationships between satisfaction and loyalty. One of the relationships identified for satisfaction and loyalty was that form of satisfaction which occurs without loyalty, and loyalty which occurs without satisfaction. Thus, although Toyota customers expressed satisfaction with their dealership's after-sales service, they were not inclined to exhibit loyalty to their preferred dealership. It could also suggest the influence of other variables in the dealer after-sales loyalty equation for Toyota customers such as price. The case of Honda, however, where satisfaction and loyalty moved in the opposite direction, is interesting but not without support in the literature. Rust and Zahorik (1993) observed that although a customer may be satisfied, he or she may be willing or even eager to try out other available providers in a bid to experience much more satisfying encounters. This result is in agreement with the findings of Mittal and Lassar (1998) that despite a high level of satisfaction, disloyalty was observed even among those customers who were satisfied. Again, in that study, they found out that more than one half of "satisfied" customers signified their willingness to change service providers.

Hypothesis seven (H7): For hypothesis seven, the results indicated that there was a statistically significant relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers.

Results from the testing of this hypothesis were supported by a study of Bloemer, Kasper and Lemmink (1990) who determined that there were significant interaction effects between intended dealer loyalty and intended brand loyalty. Another study by Bloemer and

Pauwels (1998), however, found that though there was a relationship between dealer loyalty and brand loyalty, this relationship was not significant. The correlation scores for this hypothesis of .258 and .263 indicate a weak relationship between dealer after-sales loyalty and brand loyalty. This result may imply that customers take other factors into consideration in forming brand loyalty. Bloemer and Pauwels (1998) found that satisfaction with the car is the most significant antecedent of brand loyalty, and this may well be the case for Toyota and Honda customers. Their experience with the car in terms of quality, drive, comfort and utilization among other characteristics may contribute to intended loyalty behaviours.

Hypo thesis eight (8) and nine (H9): Based on the results of the study, dealer after-sales loyalty had a statistically significant effect on brand loyalty. However, perceived car aftersales service quality and satisfaction with after-sales service did not have any statistically significant effect on brand loyalty for both Toyota and Honda customers.

A close examination of the coefficients in the linear regression analysis reveals that the contribution of dealer after-sales loyalty to brand loyalty was only minimal, as indicated by the coefficients in both analyses and the fact that a small percentage of the variability in brand loyalty ( $8 \%$ ) was explained by the influence of dealer after-sales loyalty for customer of both brands. These results are consistent with the findings of Bloemer and Pauwels (1998) that the correlation between dealer after-sales loyalty and brand loyalty was not significant. However, this finding is contrary to the findings of several studies (Bloemer and Pauwels, (1998); Bloemmer and Lemmink, (1992); Cunningham, (1956, 1961); Carman, (1970); Tranberg and Hansen (1986); Bloemer et.al., (1990); Bloemer and Lemmink, (1992)) that store loyalty is an intermediating factor between customer satisfaction and loyalty to the brand.

### 6.5 Conclusion

The objective of this study was to investigate the differences in perceived car aftersales service quality, satisfaction with after-sales loyalty, dealer after-sales loyalty and brand loyalty between Toyota and Honda customers in Bangkok. Additionally this study aimed to evaluate the relationship between perceived car after-sales service quality, satisfaction with
after-sales loyalty, dealer after-sales loyalty and brand loyalty among customers of Toyota and Honda. Of the total 400 correspondents, 200 were Toyota respondents and 200 were Honda respondents. Both Toyota and Honda customers were evaluated using close-ended questionnaires distributed to four dealerships each of both automakers in Bangkok, using sampling procedure between May to June, 2010.

This research focused on the three dimensions of perceived car service quality (kindness, tangibles and faith), which were modified from the SERVPERF instrument. The demographic factors obtained included gender, age, and employment and income levels.

According to the data obtained, the majority of all the respondents were females aged between 21-30 and employees earning between 21,001-40,000 Baht. In order to test the two groups of hypothesis (group A and group B), the data was analyzed using SPSS.

The results for group A showed that hypotheses three and four failed to reject, whereas hypothesis one failed to reject as per the kindness dimension but was rejected for the tangibles and faith dimensions. Hypothesis two was also rejected. Thus, it could be concluded that there was no difference in perceived car after-sales service quality when determined by dimensions of kindness, dealer after-sales loyalty and brand loyalty between Toyota and Honda customers. However, there was a difference in perceived car service quality between Toyota and Honda customers when determined by tangibles and faith dimensions. Furthermore, there was a difference in after - sales service satisfaction between Toyota and Honda customers.

The outcomes of group B hypotheses showed that null hypotheses five, eight and nine were rejected, while null hypothesis six failed to reject for Toyota customers but was rejected for Honda customers. Thus, there was a statistically significant relationship between perceived car after-sales service quality and satisfaction with after-sales service. Additionally, dealer after-sales loyalty was found to have an effect on brand loyalty for Toyota and Honda customers, although this effect was minimal. Perceived car after-sales service quality and satisfaction with after sales service, however, had no significant effect on brand loyalty of Toyota and Honda customers. The null hypothesis seven, was also rejected which means that there was a statistically significant relationship between dealer after-sales loyalty and brand loyalty of Toyota and Honda customers.

Employing the modified SERVPERF instrument for the car service industry yielded insights about measuring perceived car service quality, satisfaction and loyalty in the car service industry in Thailand. Although the research provided some useful information on the variables under study, research data and further analysis highlighted important influences of culture on customers' perceptions of service quality and the resulting outcomes of satisfaction and loyalty as evidenced by the importance of kindness dimension to satisfaction and loyalty. The results also suggested the influence of other antecedents and moderating variables in the perceived car service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty construct.

### 6.6 Recommendations

A number of recommendations are put forward by the researcher based on the research findings, observations and analysis for both manufacturers and dealers.

For Toyota, based on the demographic factors of sex, age, employment and income level obtained, it is suggested that they increase the marketing of their entry to mid-level models, the Yaris, Vios and Altis models, as a large percentage of their customers make earnings that allows them to purchase these vehicles quite affordable to them. Additionally, it should consider offering price discounts together with other low-priced packages and incentives to potential customers earning incomes in the $20,001-40,000$ Baht income bracket. Also, its marketing efforts should be targeted more at younger buyers who are university students, recent graduates and entry level employees in the private sector in the 2130 age group.

Honda products are used by the same demographic as Toyota, according to data obtained from the research. Its products, however, are positioned as sporty and fun-to-drive and this should be emphasized in its promotional campaigns to attract customers to its product offerings and gain some market share. In particular, its entry to mid-level compact and sub-compact models should be targeted at young buyers who are university students, recent graduates and entry level employees.

Hypothesis one showed no difference in perceived car service quality dimension of kindness, but a difference in the tangibles and faith dimension. Toyota scored high on the kindness dimension, whereas Honda attained low marks for this dimension. It is
recommended that managers at Honda dealerships begin to emphasize the kindness aspects of the service encounter. These aspects such as staff attitudes, willingness to serve customers, and know-how of various service aspects will go a long way to communicate kindness to customers. Bouman and van der Wiele (1992) found this dimension to be the strongest influence of loyalty measures and thus both brands stand to benefit from loyal customers if they review and improve their customer relations efforts. Toyota scored the lowest in faith dimension and this may suggest customers do not have enough information about what actually goes on when they bring their car in for regular maintenance. In building new showrooms and service centers, special attention may be given to provide spaces or viewing areas where customers can see their vehicles during maintenance. Promotional materials that give insights about service processes can be made available to customers when they come to the service center and on the company's website among others.

A difference in satisfaction with after-sales service was found between Toyota and Honda customers in hypothesis two with Honda customers expressing higher levels of satisfaction with its after-sales service. Toyota service managers may need to investigate the reasons for lower levels of customer satisfaction with its after-sales service in order to provide services that are satisfying to customers.

There was no difference found in dealer after-sales loyalty between Toyota and Honda customers in hypothesis three. This result is reassuring to dealerships of both companies and indicative of the fact that their customers are willing to be loyal to their dealerships. Further efforts should be developed at obtaining greater loyalty among customers of both companies, such as loyalty programmes and rewards packages to encourage customers to remain loyal to their preferred dealership. Further, items should also be included in the service packages that generate high switching costs to the customers. These could be lower individual service additions like a discounted oil change every other time the customer brings his car to the dealership for regular maintenance.

The results of hypothesis four suggested a lack of difference in brand loyalty between customers of Toyota and Honda customers. The mean analysis however revealed weak brand loyalty levels among customers of both brands. Here, as was suggested for service managers of dealerships, product managers at Toyota and Honda may need to further support their representatives in providing loyalty programmes and reward packages to their customers.

The result of hypothesis five found a strong positive relationship between perceived car after-sales service quality and satisfaction with after-sales service for customers of both Toyota and Honda. Service managers therefore need to maintain consistently superior levels of service quality at their dealerships to keep customers satisfied. Since this factor affects customer satisfaction, it is crucial that service managers regularly measure customer perceptions of their service quality. The first measurement provides a standard with which to gauge future measurements so as to identify the results of improvements in service quality and problem areas that may require attention.

Results for the test of hypothesis six found no relationship between satisfaction with after-sales service and dealer after sales loyalty of Toyota customers. There was however a weak negative relationship between satisfaction with after sales service and dealer after-sales loyalty of Honda customers. For Honda service managers, customers' reasons to be disloyal may need to be investigated by the company. Customers may need further incentives to be loyal and these will have to be determined and provided by the company. Dealerships of both brands may develop long term service packages for customers after the warranty period ends in order to retain customers. This is particularly beneficial where the customer is a high value customer, such as one who possesses more than one car bought from the dealer, or owns a premium model.

Results for hypothesis seven, eight and nine revealed a relationship between dealer after-sales loyalty and brand loyalty. Thus, the assistance of automakers in providing superior after-sales service is crucial as customers who are loyal to the dealer's after-sales service are more likely to exhibit brand loyalty. Such assistance includes tooling, training and provision of credit lines for the purchase of parts and accessories. Assistance from the manufacturer that allows dealerships to give discounts on regular maintenance will go a long way to enhance loyalty to the dealerships and subsequent loyalty to the brand. Furthermore, manufacturers need to maintain and even increase promotional activities in their various dealerships. As the after-sales sector, long after the customer has taken delivery of the car, represents a means of continuous contact between the car producers and the customers via the dealers (Ehinlanwo and Zairi, 1996), this represents one prime means through which the automakers can market their products.

### 6.7 Further Study

In this study, the researcher sought to indentify the differences in perceived car aftersales service quality, satisfaction with after-sales service, dealer after-sales loyalty and brand loyalty between Toyota and Honda customers, and the relationships among these variables. It is suggested that further studies measure the expectations together with perceptions of service quality in order to identify the factors that influence satisfaction with after-sales service. Further study on service quality in the car industry should also consider consumers' affective responses in determining consumer perceptions. Specifically, given the cultural differences between western and eastern customers, the instrument employed in further research should be modified to acknowledge these. Additionally, further study may consider which dimensions of perceived car service quality are most important to customers' satisfaction.

The influence of price was not included in the framework for study. Further study may consider its influence on satisfaction and dealer after-sales loyalty.

The influence of other antecedents of dealer after-sales loyalty and brand loyalty apart from perceived car after-sales service quality and consequent satisfaction may need to be further investigated. To this end, the influence of satisfaction with the car and satisfaction with the sales service may be considered.

This research studied customer loyalty to the dealership and brand of both Toyota and Honda car manufacturers. Further study may investigate specific loyalty behaviours such as repurchase intentions, switching behaviour and engaging in positive word of mouth or complaints.

Finally, private service centres offer a viable alternative to car owners willing to maintain their cars. Further research may compare perceptions of car service quality, satisfaction and loyalty levels between branded dealerships and private owned service centres.

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Information:
I am Andrew Edem Fiati, a MBA student of Assumption University, ABAC. This questionnaire is designed for a thesis as part of graduation requirements for the degree of Master of Business Administration. The study is entitled "A Comparative Study of Perceived Quality Dimensions, Satisfaction with After-Sales Service, Dealer After-Sales Loyalty and Brand Loyalty between Toyota and Honda Customers in Bangkok" and your information will be very useful in this research. Please answer all questions to reflect your opinion. Your participation in this survey is greatly appreciated.

## Direction:

The questionnaire has 5 parts, totaling 56 items. Part 1 reflects perceptions on Perceived Service Quality. Part 2 contains questions on Satisfaction. Part 3 covers questions on Dealer After-Sales Loyalty, Part 4 poses questions on Brand loyalty and Part 5 gathers information on demographic variables.

## Screening Questions

1. Was this car bought brand new or used?

$\square$ Used (Please skip to Part 5)
2. Is this car for private (personal) or company use?Private (personal)
$\square$ Company (Please skip to Part 5)
3. Have you been using this car for more than 1 year?Yes
$\square$ No (Please skip to Part 5)
4. Do you carry out your regular maintenance at either Toyota/Honda Service Center in Bangkok?
$\square$ Yes $\square$ No (Please skip to Part 5)


| 20. | There is attractive promotion material (brochures, wallpapers, etc) in the showroom. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $21 .$ $22 .$ | There are direction signs on the route to the dealership. <br> Coffee (or other beverage) is provided while I am waiting. |  |  |  |  |  |
| 23. | There are clean cars in showroom. |  |  |  |  |  |
| 24. | I agree with service staff upon the way of paying beforehand. |  |  |  |  |  |
| 25. | Service staff answer the telephone quickly. |  |  |  |  |  |
| 26. | Service staff go through the warranty with me. |  |  |  |  |  |
| 27. | The car is well taken care of when in their care. |  |  |  |  |  |
| 28. | The dealership grounds are neat. |  |  |  |  |  |
| 29. | Service personnel call me by my name. |  |  |  |  |  |
| $\begin{aligned} & 30 . \\ & 31 . \end{aligned}$ | The dealership property is neat. <br> A seat is available while I am waiting. |  | $5$ |  |  |  |
|  |  |  | F |  |  |  |
|  | Factor 3: Faith | 1 Strongly disagree | $\begin{array}{\|c\|} \hline 2 \\ \text { Dis- } \\ \text { agree } \end{array}$ | $\begin{gathered} 3 \\ \text { Neut } \\ \text { ral } \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 4 \\ & \text { Ag } \\ & \text { ree } \end{aligned}$ | 5 Strongly agree |
| 32. | They contact me when the repair becomes more expensive. |  | $\checkmark$ |  |  |  |
| 33. | The service personnel provide a checklist of services to choose. |  |  |  |  |  |
| 34. | I am able to deliver the car outside normal operating hours |  |  |  |  |  |
| 35. | They inform me of risky repairs. |  |  |  |  |  |
| 36. | A written estimate of costs is provided. |  |  |  |  |  |
| 37. | They contact me when extra repairs are needed. |  |  |  |  |  |
| 38. | My vehicle is ready at the promised time. |  |  |  |  |  |
| 39. | Service personnel explain invoice to me. |  |  |  |  |  |


| Part 2: Satisfaction |  | $\mathbf{1}$ <br> Strongly <br> dissatisfied | $\mathbf{2}$ <br> Dissatisfied | $\mathbf{3}$ <br> Neutral | $\mathbf{4}$ <br> Satisfied | $\mathbf{5}$ <br> Strongly <br> satisfied |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 40. | My choice to purchase this service was a <br> wise one. |  |  |  |  |  |
| 41. | I think that I did the right thing when I <br> purchased this service. |  |  |  |  |  |
| 42. | This facility is exactly what is needed for <br> this service. |  |  |  |  |  |


|  | Part 3: Dealer After-Sales Loyalty | Strongly agree | $\begin{gathered} 2 \\ \text { Agree } \end{gathered}$ | $\begin{gathered} 3 \\ \text { Neutral } \end{gathered}$ | $\begin{gathered} 4 \\ \text { Disagree } \end{gathered}$ | 5 Strongly disagree |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13. | When another dealership is available, I will patronize it, rather than my preferred dealership. |  |  |  |  |  |
| 14. | If my preferred car dealership were not available right away, it would make little difference to me if I had to choose another dealership. |  | $5$ |  |  |  |
| 15. | If my preferred dealership is not available I will patronize another favourite dealership. |  |  |  |  |  |
| 16. | If I have to make a choice for a particular dealership before actually using the dealership, I might easily change my intended choice upon receiving discrepant information. | * | $\infty$ |  |  |  |
| 17. | Part 4: Brand Loyalty <br> When another brand of car is available, I will patronize it, rather than my preferred car brand. | 1 <br> $\begin{array}{c}\text { Stro ngly } \\ \text { agree }\end{array}$ agree | $\begin{gathered} 2 \\ \text { Agree } \end{gathered}$ | $\begin{gathered} 3 \\ \text { Neutral } \end{gathered}$ | Disagree | 5 $\begin{gathered}\text { Strongly } \\ \text { disagree }\end{gathered}$ |
| 18. | If my preferred car brand were not available right away, it would make little difference to me if I had to choose another brand. |  |  |  |  |  |
| 19. | If my preferred car brand is not available I will patronize another favourite brand. |  |  |  |  |  |


| 0. | If I have to make a choice for a particular car brand <br> before actually making the purchase, I might easily <br> change my intended choice upon receiving <br> discrepant information. |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Part 5: Demographic Profile

1. Gender
$\square$ MaleFemale
2. Age
$\square$ Below 20 years
$\square 31-40$ years
$\square$ More than 50 years

## 3. Occupation

$\square$ Student
$\square$ Official employee
$\square$ Business owner xixallorOthers

## 4. Income Level/month

$\square$ Less than 10,000 baht $\mathrm{AB} \quad \square 10,000-20,000$ baht $\square 20,001-40,000$ baht $\quad \square 40,001-60,000 \mathrm{baht}$More than 60,000 baht

## 5. Which car do you drive?

Toyota
$\square$ Honda


## แบบสอบถาม

แบบสอบถามฉบับนี้เป็นส่วนหนึ่งของงานวิจัยในการศึกษาระดับปริญญาโท แบบสอบถามนี้จัดทำขึ้นเพื่อเป็นการรวบรวมข้อมูลเกี่ยวกับ "การศีกษาเกี่ยวกับปัจจัยต่างๆที่เกี่ยวข้องกัยการยอมรับด้านคุณภาพของการให้บริการ ความพึงพอใจในบริการหลังการขาย ความซื่อสัตย์ของลูกค้าต่อบริการหลังการขายของผู้ขาย และความซื่อสัตย์ในยี่ห้อรถยนต์ระหว่างโตโยต้าและฮอนด้า ของลูกค้าในกรุงเทพมหานคร" ข้อมูลที่ได้รับจากท่านจะเป็นประโยชน์อย่างยิ่งต่อการวิจัย กรุณาตอบคำถามโดยทำเครื่องหมายในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุด ขอขอบพระคุณอย่างสูงในความอนุเคราะห์การตอบแบบสอบถามนี้

## ข้อมูลทั่วไป

1. รถที่คุณซื้อเป็นรถยี่ห้อเดียวใหม่หรือเหมื อนกับที่คุณเคยใช้มาก่อน?
$\square$ ยี่ห้อใหม่
ยี่ห้อที่เคยใช้มาแล้ว (กรุณาข้ามไปตอบข้อ 5)
2. รถที่คุณซื้อมาใช้เพื่อการส่วนตัวหรือสำหรับใช้เพื่อบริษัท?
$\square$ ส่วนบุคคล
บริษัท (กรุณาข้ามไปตอบข้อ
3. คุณเคยใช้รถมาเป็นเวลามากกว่า 1 ปี?


ไม่ใช่ (กรุณาข้ามไปตอบข้อ
5)
4. คุณตรวจเช็คสภาพรถยนต์ที่ศูนย์บริการโต โยต้า หรือ ฮอนด้า ในกรุงเทพ?
$\square$ ใช
$\square$ ไม่ใช่ (กรุณาข้ามไปตอบข้อ
5)

## ส่วนที่ 1: คุณภาพในการให้บริการ:

คำถามในส่วนนี้ใช้วัดเกี่ยวกับคุณภาพของการบริการหลังการขาย กรุณาทำเครื่องหมายในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุด

|  | ปัจจัยที่ 1: Kindness | $\begin{gathered} 1 \\ \text { ไม่เห็น } \\ \text { ด้วยอ } \\ \text { ยางยิ่ง } \end{gathered}$ |  | $\begin{gathered} \mathbf{3} \\ \text { ปานกลา } \\ \text { ง } \end{gathered}$ | $\begin{gathered} \hline 4 \\ \text { เห็นด้ } \\ \text { วย } \end{gathered}$ | 5 <br> เห็นด้ว <br> ยอย่าง <br> ยิ่ง |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | ไดรับการบริการที่ดีจากพนักงาน. ธิบข้ |  |  |  |  |  |
| 2. | พนักงานให้บริการด้วยความเป็นกันเอง. |  |  |  |  |  |
| 3. | พนักงานมีทักษะในการทำงานที่ดี เช่น มีพนักงานให้บริการเรื่องร้องเรียนจากลูกค้าโดย ตรง. |  |  |  |  |  |
| 4. | พนักงานที่ให้บริการนั้นมีความน่าเชื่อถือ. |  |  |  |  |  |
| 5. 6. | พนักงานสามารถแก้ไขปัญหาที่ลูกค้าร้องเรียนไ ด้. พนักงานให้คำแนะนำที่ดีต่อลูกค้า. |  |  |  |  |  |
| 7. | พนักงานให้บริการด้วยความสุภาพ. |  |  |  |  |  |


| 8. | พนักงานให้ความสนใจหรือให้ความสนใจในสิ่ง ที่ลูกค้าต้องการ. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9. | พนักงานสอบถามความต้องการของลูกค้าเมื่อลู กค้าเข้ามารับบริการ. |  |  |  |  |  |
| 10. | พนักงานให้รายระเอียดเกี่ยวกับสิ่งที่ลูกค้าต้องก ารรับบริการ. |  |  |  |  |  |
| 11. | มีการนัดหมายการให้บริการล่วงหน้า. |  |  |  |  |  |
| 12. | พนักงานให้ความสนใจในการบริการอย่างรวดเร็ <br> ว. |  |  |  |  |  |
| 13. | มีการควบ คุมการนัดหมายตามเวลาที่นัดกับ ลุกค้า. |  |  |  |  |  |
| 14. | ไม่มีปัญหาความผิดพลาดที่เกิดขึ้นจากการ ซ่อมแซมรถ. |  |  |  |  |  |
| 15. | พนักงานอธิบายถึง ความจำเป็นในการซ่อมรถ. |  |  |  |  |  |
| 16. | ไม่มีการทำงานที่เกินความจำเป็นในการซ่อมบำ รุงรถยนต์. |  |  |  |  |  |
| 17. | บริการด้วยความตรงไปตรงมา. |  |  |  |  |  |
| 18. | สามารถให้บริการการบำรุงรักษารถได้ในระยะ เวลาอันสั้น. |  |  |  |  |  |
|  | ปัจจัยที่ 2: Tangibles | $\begin{array}{\|c\|} \hline 1 \\ \text { ไม่เห็น } \\ \text { ด้วยอ } \\ \text { ย่างยิ่ง } \end{array}$ | $\stackrel{2}{\text { ไม่เห็น }}$ ด้วย |  | เห็นด้ | $\begin{gathered} \mathbf{5} \\ \text { เห็นด้ว } \\ \text { ยอย่าง } \\ \text { ยิ่ง } \end{gathered}$ |
| 19. | พนักงานแต่งกายสะอาด เรียบร้อย. |  |  |  |  |  |
| 20. | เอกสาร แผ่นพับ ป้ายข้อมูลภายในโชวรู่ร มีความน่าสนใจ. |  |  | $\sum$ |  |  |
| 21. | มีป้ายบอกทางไป ยังศูนย์ให้บริการ. |  |  | $\bigcirc$ |  |  |
| 22. | มีเครื่องดื่มไว้บริการแก่ลูกค้าขณะรอ. |  | * |  |  |  |
| 23. | การจัดแสดงรถตัวอย่างภายในโชว์รูม สะอาด สวยงาม. | \% |  |  |  |  |
| 24. | เห็นด้วยกับการชำระค่าบริการก่อนการรับบริการ. | 6 |  |  |  |  |
| 25. | พนักงานรับโทรศัพท์ลูกค้าอย่างรวดเร็ว. พนักงานดูแลเรื่องการรับประกันรถยนต์เป็น อย่างดี. |  |  |  |  |  |
| 27. | รถของลูกค้าได้รับการดูแลอย่างดี. |  |  |  |  |  |
| 28. | บริเวณของศูนย์บริการมีความสะอาด. |  |  |  |  |  |
| 29. | พนักงานเรียกชื่อ ของลูกค้าที่มารับบริการ. |  |  |  |  |  |
| 30. | สิงของเครืองใช้ในสถานบริการสะอาด. |  |  |  |  |  |
| 31. | มีที่พักรับรองไว้บริการลูกค้าขณะรอ. |  |  |  |  |  |


|  | ปัจจัยที่ 3: Faith | $\begin{gathered} \mathbf{1} \\ \text { ไม่เห็น } \\ \text { ด้วยอ } \\ \text { ย่างยิ่ง } \end{gathered}$ | $\begin{gathered} \mathbf{2} \\ \text { ไม่เห็น } \end{gathered}$ ด้วย | $\begin{gathered} \mathbf{3} \\ \text { ปานกลา } \\ \text { ง } \end{gathered}$ | $\begin{gathered} \stackrel{4}{\text { เห็นด่ }} \\ \text { วย } \end{gathered}$ | $\begin{gathered} \mathbf{5} \\ \text { เห็นด้ว } \\ \text { ยอย่าง } \\ \text { ยิ่ง } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32. | พนักงานแจ้งให้ทราบล่วงหน้าเกี่ยวกับค่า บริการการซ่อมแซมรถยนต์ที่อาจจะแพงหรือจ่าย เพิ่มขึ้น. |  |  |  |  |  |
| 33. | มีรายละเอียดเกี่ยวกับบริการไว่ให้ลูก ค้าเลือก. |  |  |  |  |  |
| 34. | มีการให้บริการรถยนต์ในกรณีจะต้องมีการส่ง รถนอกเวลาทำการ. |  |  |  |  |  |
| 35. | พนักงานจะทำการแจ้งให้ทราบเกี่ยวกับการ ซ่อมที่มีความเสี่ยงหรือมีผลต่ออะไหล่ส่วนอื่นๆข องรถ. |  |  |  |  |  |
| 36. | มีการแจ้งค่าบริการเป็นลายลักษณ์อักษร. |  |  |  |  |  |
| 37. | พนักงานจะทำการแจ้งให้ทราบเมื่อจำเป็นต้องมี การซ่อมเพิ่มเติม. |  |  |  |  |  |
| 38. | ได่รับรถตรงตามกำหนดเวลา. |  |  |  |  |  |
| 39. | พนักงานอธิบายเกี่ยวกับค่าบริการต่างๆ ที่ปรากฎบนใบเสร็จ. |  |  |  |  |  |

## ส่วนที่ 2: ความพึ่งพอใจ:

คำถามในส่วนนี้ใช้วัดความพึงพอ ใจเกี่ยวกับบริการหลังการขาย
กรุณาทำเครื่องหมายในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุด

|  |  | $\begin{gathered} \mathbf{1} \\ \text { ไม่เห็นด้ } \\ \text { วยอย่าง } \\ \text { ยิ่ง } \end{gathered}$ | $\underset{\text { ไม่เห็น }}{2}$ ด้วย | 3 ปานกลา ง | $\begin{aligned} & 4 \\ & \text { เห็นด้ } \\ & \text { วย } \end{aligned}$ | $\begin{gathered} 5 \\ \text { เห็นด้ว } \\ \text { ยอย่าง } \\ \text { ยิ่ง } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40. | ที่นี่เป็นหนึ่งในศูนย์บริการที่ฉันจะเข้ามาใช้ บริการ. |  | * |  |  |  |
| 41. | ฉันคิดว่าเป็นความคิดที่ถูกต้องแล้วที่มาใช้ บริการของที่นี่. | $19$ |  |  |  |  |
| 42. | มีอุปกรณ์เครื่องใช้ต่างๆเพียงพอที่จะให้บริการ ในการซ่อ มบำรุงรถแก่ลูกค้า. |  |  |  |  |  |

ส่วนที่ 3: ความชื่อสัตย์ของลูกค้าที่มีต่อการบริการหลังการขายของผู่ให้บริการ:
คำถามในส่วนนี้ใช้วัดความ ซื่อสัต ย์ของลูกค้าที่มีต่อการบริการหลังการขายของผู้ให้บริการ กรุณาทำเครื่องหมายในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุด

|  |  | 1 ไม่เห็นด้ว ยอย่างยิ่ง | $\underset{\text { ไม่เห็นด้ }}{\mathbf{2}}$ วย | $\begin{gathered} 4 \\ \text { เห็นด้ว } \end{gathered}$ ย | 5 เห็นด้วย อย่างยิ่ง |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 43. | ฉันเลือกจะไปใช้บริการที่อื่นแทนที่โชว่รู่มที่ฉันใช้ บริการประจำ. |  |  |  |  |
| 44. | ฉันตัด สินใจลำบากหากต้องเข้ารับบริการที่ อื่นหากโชวรูมที่ฉันใช้บริการประจำนั้นไม่สามารถร องรับการให้บริการกับฉันได้. |  |  |  |  |
| 45. | เมื่อโชว์รูมที่ฉันใช้บริการประจำไม่สามารถรับบริกา รข องฉันได้ฉันจะเปลี่ยน ไปใช้บริการกับโชว์รูมอื่น ที่ฉันพอใจที่. |  |  |  |  |
| 46. | ถ้าหากว่าฉันกำลังจะตัดสินใจเลือกใช้บริการที่โชว์ รูม อื่น <br> ฉันอาจเปลี่ยนใจอย่างง่ายดายเมื่อได่รับข้อมูลขัด แย้งเกี่ยวกับโชวรู่มนั้น และฉันก็จะไม่กลับไปรับบริการที่โชว่รู่มที่ฉันใช้บริ การประจำ. |  | $1$ |  |  |

## ส่วนที่ 4: ความชื่อสัตย์ของลูกค้าที่มีต่อยี่ห้อรถยนต์:

คำถามในส่วนนี้ใช้วัดความ ซื่อสัต ย์ของลูกค้าที่มีต่อยี่ห้อรถยนต์

|  |  | ไม่เห็นด้ วยอย่าง ยิ่ง |  |  | $\begin{gathered} 4 \\ \text { เห็นด้ } \\ \text { วย } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 47. | เมื่อรถยี่ห้ออื่นมีวางจำหน่ายฉันจะเปลี่ยนไป ซื้อรถยี่ห้ออื่น. |  | * |  |  |  |
| 48. | เมื่อรถที่ฉันชอบไม่มีวางจำหน่าย ฉันอาจตัดสินใจเลือกซื้อยากขึ้นระหว่างรถ ยี่ห้อที่ฉันชอบและรถยี่ห้ออื่น. | $\frac{0}{6}$ |  |  |  |  |
| 49. | เมื่อรถที่ฉันชอบไม่มีวางจำหน่าย ฉันจะตัดสินใจซื้อรถที่ฉันชอบยี่ห้ออื่น. |  |  |  |  |  |
| 50. | ถ้าหากว่าฉันกำลังจะตัดสินใจเลือกซื่อรถคัน หนึ่งฉันอาจเปลี่ยนใจอย่างง่ายดายเมื่อได้รับข้ . อมูลขัดแย้งเกี่ยวกับรถยี่ห้อนั้นแต่ฉัน จะไม่ซื้อ รถยี่ห้อที่ฉันใช้อยู่. |  |  |  |  |  |

## สวนที่ 5: ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

คำถามในส่วนนี้เป็นคำถามที่ใช่ในการเก็บข้อมูลพื้นฐานทั่วไปของผู้ตอบแบบสอบถาม กรุณาทำเครื่องหมายในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุด
51. เพศ
$\square$ ชาย
$\square$ หญิง
52. อายุ
$\square$ ต่ำกว่า 20 ปี $\square$ 21-30 ปี
$\square 31-40$ ปี $\square 41-50$ ปี $\square$ มากกว่า 50 ปี
53. อาชีพ
$\square$ พนักงาน/เจ้าหน้าที่บริษัท $\square$ ข้าราชการ/พนักงานรัฐวิสาหกิจ $\square$ อื่นๆ
อ

## 54. รายได้ต่อเดือน

## $\square$ น้อยกว่า 10,000 บาท

 $\square 20,001-40,000$ บาท$\square 10,000-20,000$ บาท
$\square$ มากกว่า 60,000 บาท
55. ยี่ห้อรถยนต์ที่ท่านใช้ในขณะนี้
$\square$ โตโยต้า $\qquad$ ฮอนด้า


เตโอต้า
 $\square 40,001-60,000$ บาท


## Frequency and Percentage table of Demographic Factors

GENDER

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | male | 94 | 47.0 | 47.0 | 47.0 |
|  | female | 106 | 53.0 | 53.0 | 100.0 |
|  | Total | 200 | 100.0 | 100.0 |  |

AGE

|  | 0 | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | 21-30 years | 83 | 41.5 | 41.5 | 41.5 |
|  | 31-40 years | 57 | 28.5 | 28.5 | 70.0 |
|  | $41-50$ | 41 | 20.5 | 20.5 | 90.5 |
|  | more than 50 years | 19 | 9.5 | 9.5 | 100.0 |
|  | $\square$ Total | 200 | 100.0 | 100.0 | $\square$ |

OCCUPATION

|  | E | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | student | 17 | 8.5 | 8.5 \% | 8.5 |
|  | employee | 121 NG | E 60.5 | 60.5 | 69.0 |
|  | management | $21 /$ | 10.5 | 10.5 | 79.5 |
|  | government | 28 | 14.0 | 14.0 | 93.5 |
|  | self-employee | 10 | 5.0 | 5.0 | 98.5 |
|  | other | 3 | 1.5 | 1.5 | 100.0 |
|  | Total | 200 | 100.0 | 100.0 |  |

INCOME LEVEL

|  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: |
| Valid less than 10,000 | 9 | 4.5 | 4.5 | 4.5 |
| $10,000-20,000$ | 46 | 23.0 | 23.0 | 27.5 |
| 20,0001-40,000 | 84 | 42.0 | 42.0 | 69.5 |
| $40,0001-60,000$ | 44 | 22.0 | 22.0 | 91.5 |
| more than | 17 | 8.5 | 8.5 | 100.0 |
| 60,000 | 200 | 100.0 | 100.0 |  |
| Total |  |  |  |  |

## FREQUENCY AND PERCENTAGE TABLE OF HONDA DEMOGRAPHIC

## GENDER

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | male | 97 | 48.5 | 48.5 | 48.5 |
|  | female | 103 | 51.5 | 51.5 | 100.0 |
|  | Total | 200 | 100.0 | 100.0 |  |

## AGE

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Valid | $21-30$ years | 84 | 42.0 | 42.0 | 42.0 |
|  | $31-40$ years | 60 | 30.0 | 30.0 | 72.0 |
|  | $41-50$ | 44 | 22.0 | 22.0 | 94.0 |
|  | more than 50 | 12 | 6.0 | 6.0 | 100.0 |
|  | years | 200 | 100.0 | 100.0 |  |

OCCUPATION

|  |  |  | Valid <br> Percent | Cumulative <br> Percent |
| :---: | :---: | :---: | :---: | :---: |
| Valid | student | 12 | 6.0 | 6.0 |
| 6.0 |  |  |  |  |
| employee | 149 | 74.5 | 74.5 | 80.5 |
| management | 13 | 6.5 | 6.5 | 87.0 |
| government | 9 | 4.5 | 4.5 | 91.5 |
| self-employee | 17 | 8.5 | 8.5 | 100.0 |
| Total | 200 | 100.0 | 100.0 |  |

INCOME LEVEL

| $\pm$ | Frequency | Percent | Valid <br> Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: |
| Valid less than 10,000 | 5 | 2.5 | 2.5 | $\checkmark 2.5$ |
| 10,000-20,000 | 42 | 21.0 | 21.0 | - 23.5 |
| 20,0001-40,000 | 78 | 39.0 | 39.0 | $-62.5$ |
| 40,0001-60,000 | 59 | 29.5 | 29.5 | $92.0$ |
| more than 60,000 | 16 | 8.0 | 8.0 | $100.0$ |
| (2) Total | 200 | 100.0 | 100.0 | $\square$ |

## CROSSTABS

GENDER * CAR TYPE CROSSTABULATION

|  |  | 2 car type |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Toyota | Honda |  |
| gender male | Count | 94 | 97 | 191 |
|  | \% within gender | 49.2\% | 50.8\% | 100.0\% |
|  | \% of Total | 23.5\% | 24.2\% | 47.8\% |
| female | Count | 106 | 103 | 209 |
|  | \% within gender | 50.7\% | 49.3\% | 100.0\% |
|  | \% of Total | 26.5\% | 25.8\% | 52.2\% |
| Total | Count | 200 | 200 | 400 |
|  | \% within gender | 50.0\% | 50.0\% | 100.0\% |

GENDER * CAR TYPE CROSSTABULATION

|  |  | car type |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Toyota | Honda |  |
| gender male <br>   <br>  female | Count | 94 | 97 | 191 |
|  | \% within gender | 49.2\% | 50.8\% | 100.0\% |
|  | \% of Total | 23.5\% | 24.2\% | 47.8\% |
|  | Count | 106 | 103 | 209 |
|  | $\%$ within gender | 50.7\% | 49.3\% | 100.0\% |
|  | \% of Total | 26.5\% | 25.8\% | 52.2\% |
| Total | Count | 200 | 200 | 400 |
|  | $\%$ within gender | 50.0\% | 50.0\% | 100.0\% |
|  | \% of Total | 50.0\% | 50.0\% | 100.0\% |

AGE * CAR TYPE CROSSTABULATION


OCCUPATION * CAR TYPE CROSSTABULATION

|  |  |  | car type |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Toyota | Honda |  |
| occupation | n student | Count | 17 | 12 | 29 |
|  |  | \% within occupation | 58.6\% | 41.4\% | 100.0\% |
|  |  | \% of Total | 4.2\% | 3.0\% | 7.2\% |
|  | employee | Count | 121 | 149 | 270 |
|  |  | \% within occupation | 44.8\% | 55.2\% | 100.0\% |
|  |  | \% of Total | 30.2\% | 37.2\% | 67.5\% |
|  | management | Count | 21 | 13 | 34 |
|  |  | \% within occupation | 61.8\% | 38.2\% | 100.0\% |
|  |  | \% of Total | 5.2\% | 3.2\% | 8.5\% |
|  | government | Count | 28 | 9 | 37 |
|  | - | \% within occupation | 75.7\% | 24.3\% | 100.0\% |
|  |  | \% of Total | 7.0\% | 2.2\% | 9.2\% |
|  | self-emp loyee | Count | 10 | 17 | 27 |
|  |  | \% within occupation | 37.0\% | 63.0\% | 100.0\% |
|  |  | \% of Total | 2.5\% | 4.2\% | 6.8\% |
|  | other | Count | 3 |  | 3 |
|  | () BROT | $\%$ within occupation | 100.0\% | . $0 \%$ | 100.0\% |
|  | , | \% of Total | .8\% | . $0 \%$ | . $8 \%$ |
|  | Total LA | OR Count | 200 | 200 | 400 |
|  | * | \% within occupation | 50.0\% | 50.0\% | 100.0\% |
|  |  | \% of Total | 50.0\% | 50.0\% | 100.0\% |

INCOME LEVEL * CAR TYPE CROSSTABULATION

|  |  |  | car type |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Toyota | Honda |  |
| income level | less than 10,000 | Count | 9 | 5 | 14 |
|  |  | \% within income level | 64.3\% | 35.7\% | 100.0\% |
|  |  | \% of Total | 2.2\% | 1.2\% | 3.5\% |
|  | 10,000-20,000 | Count | 46 | 42 | 88 |
|  |  | \% within income level | 52.3\% | 47.7\% | 100.0\% |
|  |  | \% of Total | 11.5\% | 10.5\% | 22.0\% |
|  | 20,0001-40,000 | Count | 84 | 78 | 162 |
|  |  | \% within income level | 51.9\% | 48.1\% | 100.0\% |
|  |  | \% of Total | 21.0\% | 19.5\% | 40.5\% |
|  | $40,0001-60,000$ Count <br>  $\%$ within income level <br>  $\%$ of Total |  | 44 | 59 | 103 |
|  |  |  | 42.7\% | 57.3\% | 100.0\% |
|  |  |  | 11.0\% | 14.8\% | 25.8\% |
|  | more than 60,000 Count <br> $\%$ within income level  <br> $\%$ of Total  |  | 17 | 16 | 33 |
|  |  |  | 51.5\% | 48.5\% | 100.0\% |
|  |  |  | 4.2\% | 4.0\% | 8.2\% |
|  | Total | Count | 200 | 200 | 400 |
|  |  | \% within income level | 50.0\% | 50.0\% | 100.0\% |
|  |  | \% of Total | 50.0\% | 50.0\% | 100.0\% |

## Descriptive Of Perceived Car After-Sales Service Quality

## Customer

## Kindness

| car type | Mean | N | Std. <br> Deviation | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Toyota | 3.6250 | 200 | .59905 | 1.95 | 5.00 |
| Honda | 3.7013 | 200 | .58141 | 2.32 | 5.00 |
| Total | 3.6632 | 400 | .59079 | 1.95 | 5.00 |

## Tangibles

| car type | Mean | N | Std. <br> Deviation | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Toyota | 3.5654 | 200 | .53337 | 2.15 | 5.00 |
| Honda | 3.7100 | 200 | .52990 | 2.23 | 5.00 |
| Total | 3.6377 | 400 | .53589 | 2.15 | 5.00 |

Faith

| car type | Mean | N | Std. <br> Deviation | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Toyota | 3.5288 | 200 | .62803 | 2.00 | 5.00 |
| Honda | 3.7356 | 200 | .64292 | 2.00 | 5.00 |
| Total | 3.6322 | 400 | .64312 | 2.00 | 5.00 |

## Hypothesis 1

## Independent Sample T-Test

Group Statistics

|  | car type | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MeanCusKindness | Toyota | 200 | 3.6250 | .59905 | .04236 |
|  | Honda | 200 | 3.7013 | .58141 | .04111 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  | t -test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Differen ce | Std.ErrorDifference | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| MeanCus Kindness | Equal variances assumed |  | . 304 |  | -1.293 | 398 | . 197 | -. 07632 | . 05903 | -. 19236 | . 03973 |
|  | $\begin{gathered} \text { Equal } \\ \text { variances } \\ \text { not assumed } \end{gathered}$ | - | SIN | -1.293 | $\|397.645\|$ | .197 | -. 07632 | . 05903 | -. 19236 | . 03973 |

Group Statistics

|  | car type | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Meantangibles | Toyota | 200 | 3.5654 | .53337 | .03772 |
|  | Honda | 200 | 3.7100 | .52990 | .03747 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | - df | Sig. (2tailed) | Mean <br> Difference | Std. Error Difference | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Meantangibles | Equal variances assumed |  | . 228 | . 633 | -2.720 | 398 | . 007 | $-14462$ | . 05316 | -. 24913 | -. 04010 |
|  | Equal variances not assumed |  |  | -2.720 | 397.983 | $.007$ | $-.14462$ | $.05316$ | $-.24913$ | $\text { -. } 04010$ |

Group Statistics

|  | car type | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Meanfaith | Toyota | 200 | 3.5288 | .62803 | .04441 |
|  | Honda | 200 | 3.7356 | .64292 | .04546 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  | t -test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F |  |  |  | Sig. (2tailed) | Mean <br> Differen ce | Std. <br> Error Differen ce | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Meanf aith | Equal variances assumed |  | . 002 | . 966 | -3.255 | 398 | . 001 | -. 20688 | . 06355 | -. 33181 | -. 08194 |
|  | Equal variances not assumed |  |  | -3.255 | 397.782 | . 001 | $-.20688$ | $06355 .$ | -. 33181 | -. 08194 |

## Hypothesis 2

## Independent Samples T-Test

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Differenc e | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Satisfaction | Equal variances assumed |  | 3.406 | . 066 | -2.052 | 398 | . 041 | -. 15167 | . 07392 | -. 29699 | -. 00634 |
|  | Equal variances not assumed |  |  | $-2.052$ | 396.048 | - . 041 | $\text { - } 15167$ | . 07392 | -. 29700 | -. 00634 |

## Hypothesis 3

Independent Samples T-Test

Independent Samples Test


## Hypothesis 4

## Independent Samples T-Test

## Independent Samples Test

|  | Levene's Test for Equality of Variances |  | $t$-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | 95\% Confidence Interval of the Difference |  |
|  |  |  |  |  |  |  |  | Lower | Upper |
| Brand Loyalty Equal variances assumed | 1.482 | . 224 | -. 053 | 398 | . 958 | -. 00500 | . 09464 | -. 19105 | . 18105 |
| Equal variances not assumed |  |  | -. 053 | $\begin{array}{r} 397.93 \\ 8 \end{array}$ | $.958$ | -. 00500 | . 09464 | -. 19105 | . 18105 |

## Hypothesis 5

## Pearson's Product Moment Correlations

## Correlations

| car ty pe |  | , | Perception | Satisfaction |
| :---: | :---: | :---: | :---: | :---: |
| Toyota | Perception | Pearson Correlation Sig. (2-tailed) N | $\begin{gathered} 1 \\ 300 \end{gathered}$ | $\begin{gathered} .627 \\ .000 \\ 200 \end{gathered}$ |
|  | Satisfaction | Pearson Correlation Sig. (2-tailed) N | $19.627^{*}$ .000 200 | 1 200 |
| Honda | Perception | Pearson Correlation Sig. (2-tailed) N | 1 200 | $\begin{gathered} .752 \\ .000 \\ 200 \end{gathered}$ |
|  | Satisfaction | Pearson Correlation Sig. (2-tailed) <br> N | .752 .000 200 | 200 |

[^0]
## Hypothesis 6

## Pearson's Product Moment Correlations

Correlations

| Car type |  | Satisfaction | Dealer Loyalty |
| :--- | :--- | ---: | ---: |
| Toyota | Satisfaction | Pearson Correlation | 1 |
|  |  | Sig. (2-tailed) | -.044 |
|  |  | N |  |
|  |  | .535 |  |
|  | Dealer Loyalty | Pearson Correlation | 200 |

*. Correlation is significant at the 0.05 level (2-tailed).

## Hypothesis 7

## Pearson's Product Moment Correlations

Correlations

| car type |  |  | Dealer Loyalty | Brand Loyalty |
| :---: | :---: | :---: | :---: | :---: |
| Toyota | Dealer Loyalty | Pearson Correlation Sig. (2-tailed) N | $\begin{gathered} 1 \\ 200 \end{gathered}$ | $\begin{gathered} .258 \\ .000 \\ 200 \end{gathered}$ |
|  | Brand Loyalty | Pearson Correlation Sig. (2-tailed) <br> N | $\begin{array}{r} \hline .258 \\ .000 \\ 200 \end{array}$ | 1 200 |
| Honda | Dealer Loyalty | Pearson Correlation Sig. (2-tailed) <br> N | 200 | .263 <br> .000 <br> 200 |
|  | Brand Loyalty | Pearson Correlation Sig. (2-tailed) N | .263 .000 200 | 1 200 |

[^1]
## Hypothesis 8

## Multiple Linear Regressions

Variables Entered/Removed ${ }^{\text {b }}$

| Model | Variables Entered | Variables Removed | Method |
| :---: | :---: | :---: | :---: |
| 1 | Meandealerloyalty, <br> Meansatisfaction, <br> meanperceptn |  | Enter |

a. All requested variables entered.
b. Dependent Variable: MeanBrandLoyalty

Model Summary

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $.284^{\text {a }}$ | .081 | .066 | .92006 |

a. Predictors: (Constant), Meandealerloyalty, Meansatisfaction, meanperceptn

ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Regression | 14.528 | 3 | 4.843 | 5.721 | $.001^{\mathrm{a}}$ |
|  | Residual | 165.917 | 196 | .847 |  |  |
|  | Total | 180.445 | 199 |  |  |  |

a. Predictors: (Constant), Meandealerloyalty, Meansatisfaction, meanperceptn
b. Dependent Variable: MeanBrandLoyalty

## COEFFICIENTS

| Model |  | $\begin{aligned} & \text { Unstandardized } \\ & \text { Coefficients } \end{aligned}$ |  | Standardized Coefficients <br> Beta | t | Sig. | Correlations |  |  | Collinearity Statistics |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. <br> Error |  |  |  | Zeroorder | Partial | Part | Tolerance | VIF |
| 1 | (Constant) | 2.100 | . 559 |  | 3.760 | . 000 |  |  |  |  |  |
|  | meanperceptn | -. 211 | . 162 | -. 116 | $1.302$ | . 194 | -. 064 | -. 093 | -. 089 | . 588 | 1.700 |
|  | Meansatisfaction | . 198 | . 118 | . 148 | 1.683 | . 094 | . 065 | . 119 | . 115 | . 603 | 1.657 |
|  | Meandealerloyalty | . 335 | . 095 | . 246 | 3.530 | . 001 | . 258 | . 245 | . 242 | . 967 | 1.034 |

[^2]
## Hypothesis 9

## Multiple Linear Regression

Variables Entered/Removed ${ }^{\text {b }}$

| Model | Variables Entered | Variables Removed | Method |
| :---: | :---: | :---: | :---: |
| 1 | Meandealerloyalty, <br> Meansatisfaction, <br> meanperceptn |  | Enter |

a. All requested variables entered.
b. Dependent Variable: MeanBrandLoyalty

ModelSummary

| Model | R | R Square | Adjusted R Square | Std. Error of the <br> Estimate |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $.289^{\mathrm{a}}$ | .083 | .069 | .90719 |

a. Predictors: (Constant), Meandealerloyalty, Mean satisfaction, meanperceptn

|  | Model | Sum of Squares | df | Mean Square | F |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Regression | 14.694 | 3 | 4.898 | 5.952 |
|  | Residual | 161.306 | 196 | $.001^{\mathrm{a}}$ |  |
|  | Total | 176.000 | 199 |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

a. Predictors: (Constant), Meandealerloyalty, Meansatisfaction, meanperceptn
b. Dependent Variable: MeanBrandLoyalty

## Coefficients ${ }^{\text {a }}$



Coefficients ${ }^{\text {a }}$

| Model | Unstandardized Coefficients |  | Standardized Coefficients <br> Beta | t | Sig. | Correlations |  |  | Collinearity Statistics |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | Std. Error |  |  |  | Zeroorder | Partial | Part | Tolerance | VIF |
| 1 (Constant) | 2.059 | . 573 |  | 3.596 | . 000 |  |  |  |  |  |
| meanperceptn | -. 237 | . 189 | -. 131 | -1.256 | . 211 | -. 045 | -. 089 | -. 086 | . 430 | 2.328 |
| Meansatisfaction | . 225 | . 128 | . 183 | 1.763 | . 079 | . 038 | . 125 | . 121 | . 433 | 2.309 |
| Meandealerloyalty | . 348 | . 090 | . 269 | 3.852 | . 000 | . 263 | . 265 | . 263 | . 961 | 1.041 |

a. Dependent Variable: MeanBrandLoyalty

## Reliability Analys is - Scale (ALPHA)

## a. Reliability: Customer Kindness

Reliability Statistics

| Cronbach's <br> Alpha | N of Items |
| ---: | ---: |
| .650 | 19 |

## b. Reliability: Tangibles

Relia bility Statistics

c. Reliability: Faith

Reliability Statistics

| Cronbach's <br> Alpha | N of Items |
| ---: | ---: |
| .907 | $8 / 78$ |

d. Reliability: Satisfaction

Reliability Statistics

| Cronbach's <br> Alpha | N of Items |
| :---: | :---: |

Reliability Sta tistics

| Cronbach's <br> Alpha | N of Items |
| ---: | ---: |
| .891 | 3 |

e. Reliability: Dealer After-Sales Loyalty

Reliability Statistics

f. Reliability: Brand Loyalty


Reliability Statistics



[^0]:    **. Correlation is significant at the 0.01 level (2-tailed).

[^1]:    **. Correlation is significant at the 0.01 level (2-tailed).

[^2]:    a. Dependent Variable:

    MeanBrandLoyalty

