



# THE EFFECT OF AFTER-SALES SERVICES ON CUSTOMER SATISFACTION IN THE CASE OF LIFAN MOTORS

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SATISFACTION IN THE CASE OF LIFAN MOTORS

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## **Statement of Certification**

This is to certify that the thesis prepared by Rahel Tenker Yirga, entitled: Assessment of Marketing Strategy practices and its Challenges, In the case of Ethiopian Insurance corporation and submitted in partial fulfillment of the requirements for the Degree of Master of Art in Marketing Management complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Advisor

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**St. Mary's University**

**School of Graduate Studies**

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SATISFACTION IN CASE OF LIFAN MOTORS**

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## **List of abbreviation and acronyms**

<b>ANOVA:</b>	Analysis of Variance
<b>SPSS:</b>	Statistical Package for Social Science
<b>ETC:</b>	Ethiopian tele communication
<b>CSM:</b>	Customer satisfaction measurement

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## ABSTRACT

*Customers are the assets of every business. Sales professionals must try their level best to satisfy customers for them to come back again to their organization. Providing good after-sales service shows your customers you want to build a long-term relationship with them earn their loyalty and keep their business. The main objective of this research is to assess and analyze the effect of after-sales services on customer satisfaction on Lifan Motor. Thus, this study evaluates the relationship between after-sales services of Lifan Motor and its customer satisfaction. To identify the extent and nature of cause-and-effect relationships between after-sales service and customer satisfaction, this research adopted Explanatory research method. For this stud, primary data were collected using five-point Likert scale based questionnaire that was constructed considering all the dimensions of after sales-services. Additionally, customer's perceptions were used to assess Customer Satisfaction. Samples of 371 customers were selected using purposive sampling technique, and 357 customers completed and returned the questioners. The data was analyzed using descriptive statistics (frequency, mean and standard deviation). The statistical methods of analysis included a descriptive statistic for demographic profile, and inferential statics correlation and Regression analysis processed through SPSS version 20. The result of this study shows that, out of five after-sales services dimensions; Inspection, Warranty, spare parts supply and maintenance service have a positive coefficient and significant impact on customer satisfaction. However online (telephone) service has statically insignificant relationship with customer satisfaction. Based on findings of the study, the researcher recommended to Lifan motors who provides after-sales services for their customers, they should focus on their after sale service and separately recognize and regulate its after- sales service components, hence after-sales service is essential for customers to get service after they purchase the product as well as for the sellers as one means of customer loyalty, repeat purchase and profitability.*

**Key words: After-sales service; Customer satisfaction, Effect**

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the Study

Customer is considered as a king in every business. The main purpose of every business is to satisfy their existing customers and to attract new customers. Customer satisfaction is a basic priority and it cannot be considered as a separate function in business and it is considered very important, it shows how firms are committed to provide quality product or services to their customers that eventually increase customer loyalty. Satisfying the customer is one of the basic objectives of the organization, as it is often said that customer is boss and boss is always right, so it means customer is right when he demands for After-Sales services (Yuen & Chan, 2010).

Many business companies are set up with a motive of maximizing profit. In this regard Customers play an important role to maximizing profit many companies are working on customer satisfaction to satisfy its existing customers and to attract new customers. Thus, Customer satisfaction is defined as the attitude resulting from what customers believe should happen (expectations) compared to what they believe did happen (performance perception) (Kurata & Nam, 2010).

After-sales services serve as a foundation for evaluating customer satisfaction because, after-sales services are expectation and customers meet their expectations mean that satisfied on services of the companies Kurata & Nam, (2010). Perceived service is the outcome of the consumer's view of the service dimensions, which are both technical and functional in nature. It is very vital to note here that, service quality is not only assessed as the end results but also on how it is delivered during service process and its ultimate effect on consumer's perceptions Fornell, (1992). After-sales services have a strong correlation with customer satisfaction, financial performance, manufacturing costs, customer retention, customer loyalty, and the success of marketing strategy (Gaiardelli, Cavalieri, & Ierace, 2007).

Organizations operating within the automotive industry consider after-sales services to be a strategic component of their marketing plan Through After-sales services, companies can reach a

higher level of service quality, a higher level of customer satisfaction, and can maintain a constant competitive advantage (Sudharshan, 2010).

According to Sudharshan (2010), After-Sales service is an emerging concept in the business community and now a day so many Automobile sellers provide after-sales service for their customers as the nature of the product requires continuous follow up and inspection, because vehicles are vulnerable to technical and mechanical problems because of long time service. In the current automotive market is escalating competition combined with rapid development of new customer service technologies has increased the focus on enhancing the customer relationship. The nature of the products in the automotive industry is highly vulnerable to technical and mechanical problems, effective after-sales service is very essential to attract new customers and retain existing customers (Ehinlanwo & Zairi, 1996).

Customer satisfaction has been studied and recognized as an important factor in the management literature for the past few decades. Studies indicate that there are links among customer satisfaction, customer loyalty, and profitability. During recent years, there have been studies that have established mechanisms that attempt to link customer satisfaction and customer loyalty. Many studies additionally attempt to establish connections between After-sales service, customer satisfaction, customer loyalty, and profitability Rizka & Widji (2013). Due to this, many researchers have conducted a research on after-sales service and its effect on customer satisfaction in the non-automotive industry of Ethiopia. Potluri and Hawariat (2010) are among other researchers who investigate customer satisfaction on after-sales service of ETC customers.

As a result, automotive suppliers provide after-sales services for their customers to satisfy those customers. Thus, this paper tries to study Customer satisfaction on after-sales services of Lifan motors. Lifan Motors established in Addis Ababa Ethiopia in December 9, 2009 it has experiences on Assembling and distributing cars in the local market. The company gives after sale service room station located at Kara. According to lifan motor data base and the information provided by the management team the company has around 5000 customers since it has established up to now. Hence, this research is intended to explain the effect of after-sales service on customer satisfaction taking Lifan motor as a point of reference.



## **1.2. Statement of Problem**

Customer satisfaction is a well-known and established concept in several areas like marketing, consumer research, economic psychology, welfare-economics, and the most common interpretations obtained from various authors reflect the notion that satisfaction is a feeling which results from a process of evaluating what has been received against what was expected, including the purchase decision itself and the needs and wants associated with the purchase. Customer satisfaction plays an important role for the success and continuous existence of the company. Customer satisfaction is critical to any product or service, because it is a strong predictor of customer retention and products repurchase (Kotler & Keller, 2012).

Today market is a more customer oriented in the sense all the business operations revolve around satisfying the customer by meeting their needs through effective service. After-sales services play an important role in customer satisfaction. After-sales service is important because it helps to ensure that customers are satisfied with their purchases and in case of any difficulty installing or setting up equipment, they can receive help (Mishram, 2014).

Several researches have been undertaken in the perspectives of After-Sales service Perspective and customer satisfaction, in many countries such as Hussain, Bhatti & Jilani (2011), research with title "An empirical analysis of after-sales service and customer satisfaction" showed that customer satisfaction increases with better service delivery. Armistead and Clark (1990) investigate the after-sales support strategy relation with customer satisfaction, By offering different after-sales services during the various stages of the primary product lifecycle, the provider can ensure product functionality and thereby customer satisfaction. This may lead to a fruitful relationship between the provider and the customer over time, allowing for more transactions. Ahn & Sohn (2009). Therefore, after-sales services have acquired a critical role as a means to satisfy and retain customers.

Regarding with this, there are several empirical studies conducted by different individuals targeted at investigating the title of Effect of after-sales services on customer satisfaction. Muhammad (2011) and Hawariat and Potluri (2010) are among the researchers who conducted studies on Effect of after-sales services on customer satisfaction in Ethiopia. As to the best knowledge of this study,

previous studies were undertaken on the Effect of after-sales services on customer satisfaction and loyalty in Monico and Holand cars, however the study did not analyze specifically After-sales services and its impact on customer satisfaction, and the second researchers conducted a research on After-Sales Service Behaviors of Ethiopian telecommunication corporation (ETC) customers. also one hardly finds researches which were undertaken pertaining to the After Sales-services and customer satisfaction in lifan motors Ethiopia. According to the lifan motors customer service officer, the after-sales service given by lifan motors are Maintenance service (Repair), spare part supply, Warranty, inspection and online service (telephone).

Based on this, the study designed in such a way that focuses on the areas not addressed by the preceding studies. Accordingly, the researcher has conducted a preliminary research on Lifan Motors customer, and there have been some complains heard from the clients of the company that uses there after sales-service such as the maintenance services takes several days to repair spare parts are not available at a time of need, the price for overall after- sales service is inappropriate inspection takes longer than it should take and etc.

This study was conducted to analyze the effect of Maintenance service (Repair), spar part supply, Warranty, inspection and online service (telephone) on customer satisfaction of Lifan motor.

### **1.3. Research Questions**

To achieve the intended purpose as well as the research problem stated above, the researcher has designed the following research questions.

- ❖ What is the effect of maintenance (repair) service offered by lifan motors Ethiopia on customer satisfaction?
- ❖ What is the effect of spare part supply service offered by lifan motors Ethiopia on customer satisfaction?
- ❖ What is the effect of warranty offered by lifan motors Ethiopia on customer satisfaction?
- ❖ What is the effect of inspection service offered by lifan motors Ethiopia on customer satisfaction?

- ❖ What is the effect of online telephone service offered by lifan motors Ethiopia on customer satisfaction?

## **1.4. Objective of The Study**

The objectives of this study are divided into two parts; that are the general objective and the specific objectives.

### **1.4.1 General Objective;**

The primary objective of this study is examining the effect of after-sales services on Customer satisfaction in Lifan motors.

### **1.4.2 Specific Objectives;**

Based on the above major objective, the study has the following specific objectives;

- To examine the effects of Lifan motors maintenance (repair) service on customer satisfaction
- To examine the effects of Lifan motors spare part supply on customer satisfaction
- To examine the effects of Lifan motors warranty on customer satisfaction
- To examine the effect of inspection service of Lifan motors on customer satisfaction
- To examine the effect of online telephone service of lifan motors on customer satisfaction

## **1.5. Significance of Study**

Automotive companies play unquestionable role in sustainable economic development of a country through providing automotive products to the economy. As described in the previous sections, this study is designed to investigate the Effect of after sales-services on Customer satisfaction. This study result has a great importance for the management of automotive company in Ethiopia through identifying significant and takes correct measure on their after sales- services to keep the existing

customer and attract the new customer. In addition, other interested researchers on this area may use as a source for detailed and further studies.

## **1.6. Scope of Study**

The main concern of this study is examining the effect of after-sales services on Customer satisfaction in Lifan motors. After-sales service given by lifan motors are Maintenance service (Repair), spar part supply, Warranty, inspection and online service (telephone). As a result, this study focused on the effect of Maintenance service (Repair), spar part supply, Warranty, inspection and online service (telephone) on Customer satisfaction of Lfan motors. the analyzed data of this study were taken from the customers of after-sales service who got after-sales service at least one time from the company. Therefore, the study considered only those. In addition to this, the study was force to delimit the study area within Addis Ababa, because location of after sales-service Room for the selected company is in Addis Ababa located in kera.

## **1.7 Organization of The Study**

This study organized into five chapters. Chapter 1 provides a brief background of the study, discusses the research problem, the study objective, significance, scope and definition of basic terms. Chapter 2 reviews theoretical and empirical evidence research on after-sales service, customer satisfaction and conceptual frame work. Chapter 3 presents the organizational background and methodology adopted in the study. Chapter 4 presents the results and discussions. Chapter 5 draws conclusions and provided recommendation.

## **1.8. Definition of Basic Terms**

The research used some conceptual and operational words that related to the research objectives to define some of the terms in this study. The definitions are as follow:

**After-sales service:** - is all the service offered by Lifan Motors after the customer bought the vehicle and started using it.

**Customer satisfaction:** - is the psychological feeling of after-sales service customers from their experience on the after-sales service offered by the companies, which is the difference between the

actual performance of the after-sales service and the desire and expectation of customers on the after-sale service (Kotler & Keller, 2012).

**Effect:** - is the psychological pressure that made customers to feel very satisfied, satisfied, indifference, dissatisfied or very dissatisfied because of after-sales services offered by the give companies (Yuen & Chan, 2010).

**Warranty:** - manufacturers of most products offer warranty and, in some markets such as automobiles. Manufacturers try to gain a competitive advantage by offering longer warranty periods. Warranty reduces the financial risk of owning products and therefore it is an important element of customer support (Muhammad, 2011).

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### 2.1. Theoretical Review

As a term, “after-sales services” has been used the most, to describe services that are provided to the customer after the products have been delivered Ahn & Sohn (2009). The same services are sometimes being also called “field services”, when they are embodied in the main Characteristics that are located at a customer’s site Fornell (1992). “After-sales support” Raddats (2011), as well as “technical support” or even just “services”, are terms also found in the literature Sudharshan (2010). “After-sales services” are often Goffin (1999), referred to as “product support activities”, meaning all activities that support the product-centric transaction. They are also found in the literature as “customer support” elements, meaning all activities that ensure that a product is available to consumers “over its useful lifespan for trouble-free use” (Asugman, Johnson & McCullough, 1997).

Furthermore, the term “after-sales services” has been approached in the literature under two broad perspectives. When referring to service providing companies, after-sales services are being treated as one among several supplementary service elements provided by them Hussain, Bhatti & Jilani (2011). On the other hand, when referring to tangible goods, they are mostly seen as operative activities of some or all members of the distribution chain Saccani, Johansson & Perona, M. (2007). Such services are the transport/delivery to clients, the installation, the product-related training, the hot line and advice by the help desk, any repairing service and even the recycling process. The theory of distribution services argues that the merchandise of explicit products or services is to be seen embodied in a variety of distribution services Urbaniak (2001). According to the particular theory, these services accompany the merchandise possessing one of the two primary components or retailing Kotler & Keller (2012), and can be split further into five groups, namely assortment, information, location and ambiance and “assurance of immediate product delivery at the desired.

### **2.1.1. After-Sales Service**

Nowadays, more and more organizations focus their attention on retaining existing customers rather than attracting new ones, an increasingly important source of competitive advantage is the way we serve customers Adrian (1995). After-sales service has emerged as a major source of competitive maneuvering, so firms strive for competitive advantages with their after-sales service portfolio to differentiate offers from competitors After-sales services are an important marketplace differentiator because primary products are often physically comparable (Kotler & Keller, 2012).

After-sales services are services that are provided to the customer after the products have been delivered Rigopoulou, Chaniotakis, Lymperopoulos & Siomkos (2008). After-sales services are those activities occurring after the purchase of the product and devoted to supporting the customer in the usage and disposal of the goods Cavalieri, Gaiardelli, & Ierace (2007). According to Urbaniak (2001) defined After Sales service as those activities that enhance or facilitate the role and use of the product.

After-sales services are those activities in which a firm engages after purchase of its product that minimize potential problems related to product use, and maximize the value of the consumption experience Armistead & Clark, (1990).

Delivery of after-sales service is becoming increasingly critical as businesses do everything in their power to be more cost-effective, boost profit margins, and meet customer demand for a product or service. Attracting a new customer is five times greater than the cost to keep a current customer happy (Kotler & Keller, 2012).

According to (Cavalieri, et al. 2007) define after-sales service as those activities taking place after the purchase of the product and devoted to supporting customers in the usage and disposal of the goods to make them loyal. While, After-sales services are often referred to as “product support activities”, meaning all activities that support the product-centric transaction (Rigopoulou, Chaniotakis, Lymperopoulos & Siomkos, 2008).

### 2.1.1.2 Components of After-Sales Service

According to Kotler & Keller (2012), after-sales services are the sum of activities taking place after the purchase of a product which:

- ensure that products are available for trouble-free use over its useful life span and guarantee the continuous availability of goods (preventive maintenance)
- replace failed products in a timely and cost-effective manner (reactive maintenance)
- Create competitive advantage for the customer (value added services)

As Goffin (1999), explained there are seven elements of after-sales support which must be provided to customers over the working lifetime of product as follows.

**Online support:** - telephone advice on product is a major element of customer support in many industries. Product experts give online consulting to customers to help them use products more or, sometimes to trace the cause of fault (troubleshooting).

**Installation:** - for many products the first element of product support following the sale is installation. This is usually performed for complex product or where personnel from the manufacturing company or their representatives involve safety issues.

**Warranties:** - manufacturers of most products offer warranty and, in some markets such as automobiles. Manufacturers try to gain a competitive advantage by offering longer warranty periods. Warranty reduces the financial risk of owning products and therefore it is an important element of customer support.

**Maintenance and repair:** - maintenance and repair are an important element of product support, which has required companies to invest significant resource. Preventive maintenance is undertaken to clean, refurbish or replace parts of equipment which otherwise would be liable to fail. Mechanical parts, for example, normally require regular maintenance as in the case of cars.



**User training:** - the complexity of some type equipment necessitates that manufacturers provide good training for users. Many computers based and complex products include functions that help users learn to use them more efficiently.

**Documentation:** - most products have some form of documentation and industries such as medical electronics plays key role. Typical form of documentation covers equipment operation, installation, maintenance, and repair. Good documentation can lead to lower support cost.

**Upgrades:** - offering customer the chance to enhance the performance of the existing products can be an important aspect of support. For example, computer manufacturer's offer upgrades, because they increase the working lifetime of products and can be a significant source of revenue. Original equipment manufacturers have a competitive advantage in this because they normally have records of where equipment has been sold which could benefit from upgrading.

According to Potluri and Hawariat (2010), the major tasks related to after-sales services of fixed lines in ETC are: -

- **Provision of information.** Customer may require information about products and services, availability, delivery dates, and prices. They may require information on progress, e.g. what is happening with their order or fault.
- **Service delivery.** It is required that the service provider to undertake a series of tasks which may vary from product to product and from service to service. Delivery is the setting up, by the service provider, of all the components required for the operation and maintenance of a service as defined in the service specification and to be used by the customers.
- **Maintenance and repair service.** This service function includes all activities associated with repair from the instant a service does not offer one or more of the specified features to the instant these features are restored for use by the customer. The process must also be consistent from the customer's perspective, irrespective of which product or service is being repaired.
- **Billing service.** Billing is common to almost all services that are not provided free of charge. Inaccurate, illegible, or incompatible bills disappoint customers. Customers usually

expect bills to be clear, informative, itemized in ways that make it clear how the total was computed.

- **Customer complaints handling.** Complaint is the result of organization's service failures that occurs for many reasons. Any type of service failures brings about negative feelings and responses from customers. Complaining customers need quick responses. Thus, if an organization welcomes and encourages complaints, it must be prepared to act on them quickly.

According to (Hawariat, 2010) in Ethiopia, applied the above to the telecommunication sector and classified that the major tasks related to After Sales services are: fixed line provision of information, service delivery, maintenance and repair service, billing service and customer complaint handling. More over many researches incorporated the following as the elements of After Sales services: maintenance, repair, online service, warranty, and training. In 2011, Attafar who developed a model of After Sales services and it incorporates the following elements: repair, spare parts supply, online (telephone) service, warranty services.

According to (Raddats, 2011) is of opinion that customers are no longer demand just for a product but one which has a comprehensive solution for their problem; they are increasingly moving away from requesting for a specific product to requesting for a certain service package (including the original purchase and all aftermarket needs) instead.

#### **2.1.1.1. Importance of After-Sales**

As a term, "after-sales services" has been used the most, to describe services that are provided to the customer after the products have been delivered. The same services are sometimes called "field services", when they are embodied in them aim characteristics that are located at a customer's site. "After-sales support" as well as "technical support" or even just "services", are terms also found in the literature. "After-sales services" are often referred to as "product support activities", meaning all activities that support the product-centric transaction. They are also found in the literature as "customer support" elements, meaning all activities that ensure that a product is available to consumers "over its useful lifespan for trouble-free use". Although a substantial body of literature exists regarding the topic of service quality, it seems that the subject remains open to additional

contributions, since the topic of service quality apart from its theoretical and academic value, plays a notable role as a source of sustainable competitive advantage for the companies (Mohammadipour & Minavandchal, 2013).

## **2.4. Customer Satisfaction**

### **2.4.1. Definition of Customer Satisfaction**

Customer satisfaction is a well-known and established concept in several areas like marketing, consumer research, economic psychology, welfare-economics, and economics. The most common interpretations obtained from various authors reflect the notion that satisfaction is a feeling which results from a process of evaluating what has been received against what was expected, including the purchase decision itself and the needs and wants associated with the purchase (Kotler & Keller, 2012).

According to (Bei, 2008) stated that satisfaction is the customers 'evaluation of a product or service in terms of whether that product or service has met their needs and expectations. Satisfaction is a positive, affective state resulting from the appraisal of all aspects of a party 's working relationship with another.

Customer satisfaction is a key factor in formation of customer's desires for future purchase. Furthermore, the satisfied customers will probably talk to others about their good experiences. Raddats (2011) elaborated hunt definition where they said, 'customer satisfaction is a process of consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product as perceived after its consumption'.

This definition approaches two sides where the first approach defines satisfaction as a final situation or as end-state resulting from the consumption experience and the second approach emphasizes the perceptual, evaluative and psychological process that contributes to satisfaction' Goffin (1999). According to Ehinlanwo and Zairi (1996), customer satisfaction is the fulfillment of the customers' enjoyment attained when products or services meet their needs and expectations.

Customer satisfaction is a compelling issue because in the service industry customer retention is more important than attracting new customers. Retaining customers has a stronger impact on company profit than does attracting new customers. Therefore, companies, so as to maximize profits in the long term, should strive for zero defection through customer satisfaction. Customer satisfaction is an ambiguous state of satisfaction expressed differently in every personality to every product/service. Customers experience their conscious perception of products/services in many degrees of satisfaction. If companies provide products which is mismatch with the customer's expectations and desires, customers will be disappointed. If companies supply product meeting their desires, customers will be satisfied. If companies give a product surpassing their desires, customers will feel highly delighted and satisfied (Muhammad, 2011).

#### **2.4.2. Customer Satisfaction Measures**

In that way, customers are necessary for the continuous existence of an organization. Since the survival of any business is dependent on the customer, the main purpose of every business should be in satisfying its existing customers and attracting a new customer. Hence, in order to be successful, organizations have to continuously measure satisfaction level of their customers in order to assure their existence in the market.

Customer satisfaction measurement involves the collection of data that provides information about how satisfied or dissatisfied customers are with a service. This information can be collected and analyzed in many ways. Many organizations regularly check the levels of customer satisfaction to monitor performance over time and measure the impact of service improvement. Henley center headlight vision Muhammad (2011) states the research carried out in the UK with public sector organizations suggests that there are five themes that are likely to be relevant to all organizations in measuring customer satisfaction.

- ✓ **Delivery of the service** (how problems were handled, reliability, outcome etc...)
- ✓ **Timeliness** (waiting times, number of times contacted)
- ✓ **Information** (accuracy, enough information, kept informed)
- ✓ **Professionalism** (competent staff, fair treatment)

- ✓ **Staff attitude** (friendly, polite, sympathetic)

Further according to Kotler & Keller (2012), customer satisfaction measures depend on the five following parameters.

- **Quality:** - If defects are detected during the warranty period, the customer is happy. However, what is important is whether the defects fall into an acceptable range. Sometimes, customers specify what an acceptable defect is.
- **On-time delivery:** - Nothing is more frustrating than not receiving a delivery on an agreed-upon day. This frustration may be eased if somebody calls to tell you that the delivery is going to be delayed, but the frustration is there just the same.
- **Money:** - Obviously, no vendor can bill the customer for an amount that was not agreed to by the customer that is if the vendor expects his invoice to be respected in full and without issue. Whenever the customer has to pay more than the purchase order value, the customer is dissatisfied.
- **Issue factor:** - Issues crop up during project execution mainly because of unclear specifications or a lack of understanding the specs. Issues may also occur because of a conflict or an error in the requirements. When the vendor raises an issue whose origin is attributable to the customer, the customer's satisfaction is not usually affected. However, the customer's satisfaction does become affected if the issues raised are due to the vendor's improper understanding of the requirements.
- **Accommodation and cooperation:** - Most projects would not be complete without a few change requests from the customer software maintenance projects run on these. But since change requests are commonly implemented before delivery and it cause additional work for the vendor. Customer will be happy when change requests are accepted without impacting the price or the delivery schedule, but it is rare to happen.

## 2.5. Methods of Measuring Customer Satisfaction

Customer satisfaction measurement involves the collection of data that provides information about how satisfied or dissatisfied customers are with a service. This information can be collected and analyzed in many different ways. Many organizations regularly check the levels of customer satisfaction to monitor performance over time and measure the impact of service improvement (Hoffman & Bateson, 2010).

CSM works In other words, CSM is related to important business variables such as repeat purchase, customer retention and profitability. It is logical to suppose that if customers are satisfied, they will return. They will be less inclined to switch to another company. Almost by definition, we would expect customer satisfaction to relate to loyalty and profitability. If customer satisfaction does not accomplish these, then from a business point of view, there would be little point in tracking it (Rizka & Widji, 2013).

Customer satisfaction could be related to loyalty and profitability, and if it is not, it is the measurement that is at fault shows 10 steps to measure customer satisfaction. In this methodology the first three steps are the conceiving steps, the next three are the developing steps and the last ones are the interpretation and tracking steps (Kotler & Keller, (2012).

### **Step 1: Gather background data:**

is important to begin with some qualitative research; techniques such as brainstorming are useful

### **Step 2: Choose the attributes to measure:**

In this step relevant attributes may be chosen. These mean that the attributes are relevant to the mission organization, contribute to customer satisfaction, avoiding measures that are no longer valid and avoiding measures that are unfavorable to customer satisfaction.

### **Step 3. Choose the right audience to be measured:**

Customer dissatisfaction is the main engine to look for discrepancies and some customer dissatisfactions.

**Step 4. Decide on the basic CSM question components:**

Five basic questions relate to the basis of the customer satisfaction measurement: incidence, frequency, importance, performance and an overall criterion measure.

- ✓ Incidence relates to the relevance of a given service or the incidence of a given problem. Did you have any problem with this service in the last year?
- ✓ Frequency relates to the recurrence of the problem. How often did you have the problem with this service?
- ✓ Importance is the service that is not used frequently by the customer.
- ✓ Performance is just how satisfied is the customer with the company performance.
- ✓ Overall criterion measure provides the importance of the individual attributes.

**Step 5. Choose the right metric** Attributes can be measured on a number of different scales. Numeric scale (10-point scale), verbal scale (good, average and poor) and binary (satisfied or not satisfied) scale can be used.

**Step 6. Make Analysis Action Oriented;**

In this step several analysis techniques can be used; quadrant analysis is one of the most common ones.

**Step 7. Consider Segmenting Customers;**

Segmentation analysis is the best option because not all customers are seeking the same benefit. Techniques such as cluster analysis and a classification tree can be used.

**Step 8. Interpret the measures correctly;**

It is important to differentiate common cause and special cause variations, if customer satisfaction is tracking; it may be easy to plot the results on a run chart using upper and lower control limits

**Step 9. Use results cautiously;**

For this step it will be easy to have all the results in attributes. For example, services give the attribute and the branches can be speed, availability and courtesy.

**Step 10. Create a tracking system:**

It will be easy to track customers on a continuous basis rather than in longer intervals.

## **2.6. The Relationship between After-sales Service and Customer Satisfaction**

After-sales service is commonly acknowledged as a potential source of revenue, profit and competitive advantage in most manufacturing industries (Bundschuh & Dezvane (2003). As a term, “after-sales services” has been used the most, to describe services that are provided to the customer after the products have been delivered. The same services are sometimes called “field services”, when they are embodied in them aim characteristics that are located at a customer’s site. “After-sales support” as well as “technical support” or even just “services”, are terms also found in the literature. “After-sales services” are often referred to as “product support activities”, meaning all activities that support the product-centric transaction.

An understanding of the effect of after-sales services in satisfaction and post behavioral intentions is important to services marketing managers because it allows them to differentiate their offering substantially, in a way that strengthens the relationship with their clientele in the short, as well as in the long run. In this regards, Armistead and Clark (1990) investigate the after-sales support strategy relation with customer satisfaction. They studied five consumer and capital goods manufacturers. Result show that there are strong links between production, design and after sales service strategy.

## **2.7. Empirical Literature Review**

The results of Hussain, Bhatti & Jilani (2011) with title "An empirical analysis of after sales service and customer satisfaction" showed that customer satisfaction increases with better service delivery Understanding the causal relationship between After Sales services and customer satisfaction has captured the interest of marketing for well over a decade now. Customer satisfaction became the battle cry of companies trying to compete in a newly globalized marketplace.



In that way, Rigopoulou & et al (2008) examined the consequences of After Sales services on customer satisfaction in Greece. The results show that After Sales service has significant and positive impact on customer satisfaction. They suggest that service marketing managers should understand the impact of After Sales service on customer satisfaction and behavioral intentions.

Further, Bundschuh & Dezvane (2003) studied the impact of after Sales service on customer satisfaction and they discovered that after-sales service is regarded as an important factor that has an impact on establishing good relationships with customers.

Then Gaiardelli, Saccani & Songini (2007) also accepted the claim that returning customers are the most profitable ones, as they require less marketing effort and relationship building and they agreed that after-sales service acquires a critical role to achieve customer satisfaction. In that manner, (Ehinlanwo and Intl, 2014) studied whether After Sales service is enough for the long relationship with customers. Their findings showed the After Sales service is a marketing tool that create and establish a relationship with customers through good communication and flexibility. In long term, it leads to customer satisfaction. Yuen & Chan (2010) indicated that organizations are dedicating more and more recourses to after-sales and large number of firms have after-sales department with employees focusing only on providing after-sales services and developing after-sales offers.

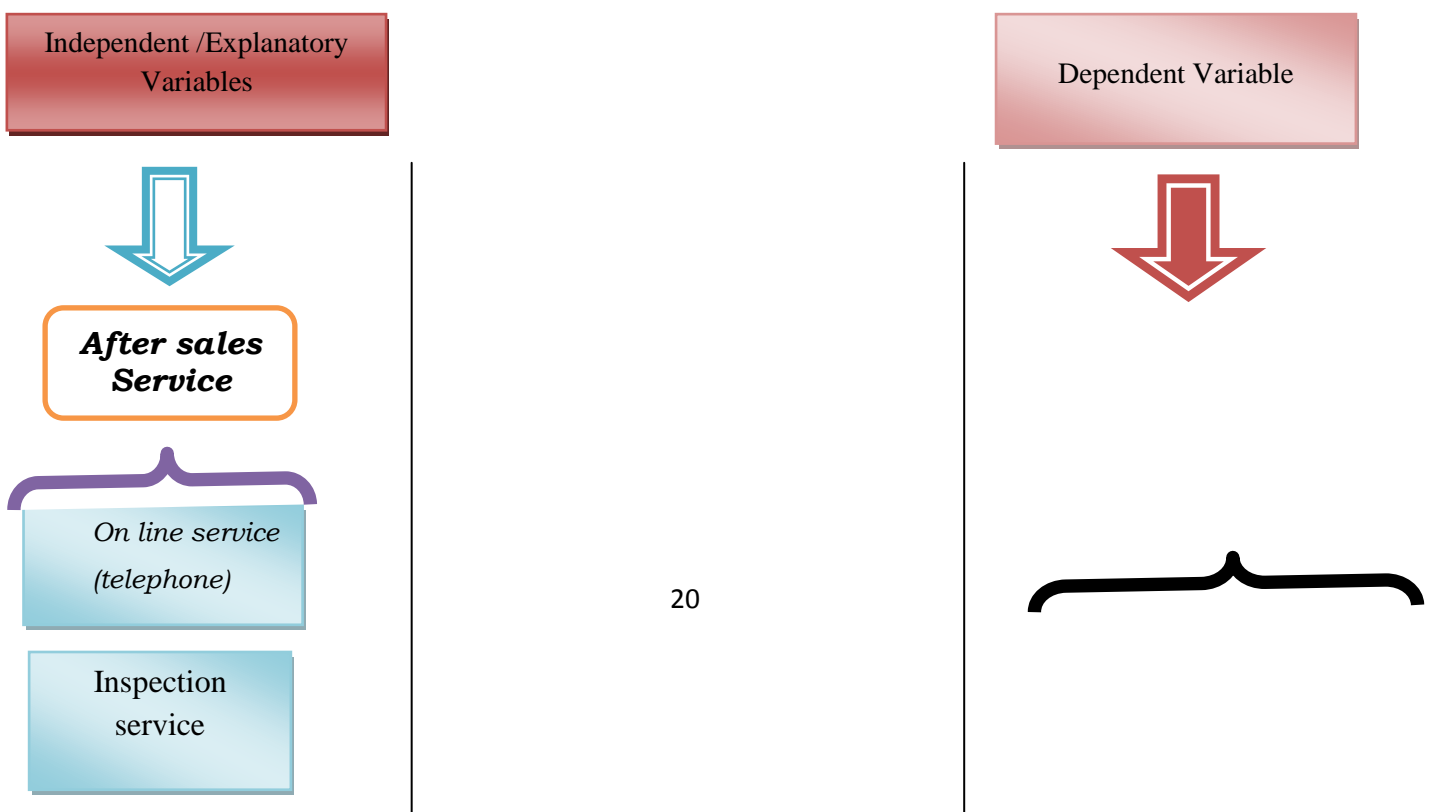
By offering different after-sales services during the various stages of the primary product lifecycle, the provider can ensure product functionality and thereby customer satisfaction. This may lead to a fruitful relationship between the provider and the customer over time, allowing for more transactions Ahn & Sohn (2009). After-sales services can create sustainable relationships with customers and contribute significantly to customer satisfaction Kurata & Nam (2010). Returning customers are the most profitable ones as they require less marketing effort and relationship building Hoffman & Bateson (2010). Therefore, after-sales services have acquired a critical role to satisfy and retain customers. Especially in a time when firms are experiencing increased pressure to

downsize operations and to become more highly specialized in their core competencies, they demand more tailored services

## 2.8. Conceptual Frame work

Based on the related literature reviewed earlier the conceptual framework of this study shows the linkage between independent variables to the dependent variable is develop as follow

**Figure 1: Conceptual Framework**





Source; previews study and own develop, 2018

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Research Approach**

In terms of investigative study there are two common approaches to business and social research: one is deductive approach that develops theories and hypotheses followed by a research strategy to test the hypotheses; and second inductive approach that finds data and develops theories as a result of the data analysis (Yuqi Li, 2007).

Therefore, a deductive approach adopted in this research because it goes from general to specific. This means the researcher has reviewed different literatures related to after sales service and customer satisfaction, moreover the researcher reviewed previous researches regarding the Effect of after sale services on Customer satisfaction. Based on this, the researcher developed the

conceptual framework of the study to shows the linkage between independent variables (after sale services) and dependent variable (customer satisfaction) to obtain the evidence regarding The Effect of after sale services on Customer satisfaction in Lifan motors.

### **3.2. Research Design**

The nature of problem and objective of any study usually determine the type of research design adopted by researcher (Hoffman & Bateson, 2010; Jacob & Ulaga, 2008). The major objective of this study is to examine; The Effect of after-sales services on Customer satisfaction in Lifan motors. To identify the extent and nature of cause-and-effect relationships between after-sales service and customer satisfaction, this research adopted explanatory research method analysis. Whether there is a cause and effect relationship between variables, explanatory research is more appropriate to be undertaken (Kurata & Nam, 2010).

### **3.2. Population and Sampling Techniques**

The total population for the study comprised all customers of the company who got after-sales service at least one time.

#### **3.2.1 Sampling Method /Techniques**

This study has used purposive sampling technique, which is a non-probabilistic sampling technique. The reason to use purposive sampling technique is because it is more appropriate for this study, since it enabled the researcher to select the sample based on his own judgment about some characteristics required from the sample element, for example a respondent should be a customer who have got after-sales service at least one time.

### 3.3. Sample Size Determination

Since there is a limited time and resources to conduct research on total population, the researcher determined the sample size from the overall customers of lifan motors. According to Lifan Motors annual report (2017), since, the company started operation in Ethiopia until now the company gives after-sales service for 5,000 customers. Based on this the study has used sample size formula to determine the sample of the respondents. According to Cochran (1977) the following sample size determination formula for Finite population:

$$n = \frac{N}{1 + Ne^2}$$

*Where:*

n= Sample Size for proportion

N = Total population of the study

P = proportion (expressed as decimal)

e= Margin of Error (allowable error)

Based on the above formula and by using 5% margin of error (the amount of error that the researcher can tolerate), 95 % confidence level (tells how sure the researcher can be). According to annual report of Lifan Motor (2017) there were 5,000 after-sales service customers who got after-sales service at least one time. From these after-sales service customers of the companies this study determines the sample size of the study that was.

$$n = \frac{5,000}{1 + 5,000(0.05)^2}$$
$$n = \underline{\underline{370.37 \text{ approximately } 371}}$$

## **3.4 Data Source**

### **3.4.1. Data Type**

This research used quantitative response in order to identify the effect of Independent Variables on dependent variables on this study

The reason why the researcher collects quantitative data in this study is to analyze The Effect of after sale services on Customer satisfaction in Lifan motors. Quantitative investigations tend to measure “*how often*” or “*how much*” (Johnston, 2006).

### **3.4.2. Data Sources**

#### **3.4.2.1. Primary Sources of Data**

By using questionnaire, the researcher collected primary data from sample respondents relating to the components of after-sales services, how after sale service is offered, and the satisfaction of customers toward the after-sales services.

#### **3.4.2.2. Secondary Sources of Data**

Secondary Data was gathered from various journals like International Business Research, European Journal of Social Sciences, Journal of International Academic Research for Multidisciplinary, International Journal of Business and Social Science, British Journal of Economics, Management and Marketing, moreover, also gathered from previous research, flayers, brusher and reports of the companies.

## **3.5. Data Collection Methods and procedures**

To examine the effect of after sales service on customer satisfaction in lifan motors, this study used Primary source of data. Questionnaire were designed and pre-tested before the actual conduct of the

study. The questionnaires had been developed from comprehensive literature review related to effect of after sale service on customer satisfaction and used Likert scale. The likert scale was applied because it allows participants to provide their perceptions and opinions both in terms of direction (positive or negative) and intensity (degree of agreement or disagreement). The questionnaire was divided into two sections. Section one was concerned with the general information about the respondent. Section two dealt with the after sales variables and its effect on customer satisfaction. The data were collected from sample customers which included the yellow taxi (the Lucy/ride) drivers, and customers who were available at lifan motors after sales service station through self-administered questionnaires and the researcher arranged time and distributed the questioner with the help of Lifan motors staffs who works in the company after sales service workshop which is located in Kera. The data collecting procedure is the concurrent procedure which is converging quantitative data to provide a comprehensive analysis of the research problem.

### **3.6. Data Analysis Techniques**

To analyze the demographic data, this study has used descriptive analysis (percentage, frequency and mean), to understand the relationship between the dependent variable (customer satisfaction) and independent variable (after sale services offered by Lifan motors) regression and correlation analysis were computed supported by SPSS version 20.

### **3.7. Reliability Test**

According to Bryman (1988), Validity means that we are measuring what we want to measure. There are different types of validity measurements including, face validity - whether at face value, the questions appear to be measuring the objective of the study. This study was undertaken a pre-test on selected employees to check the validity of the questionnaire and corrections were made based on the feedback collected. Those respondents who were part of the pilot test were not included in the actual conduct of the study. The content validity also assured when the questionnaire was prepared based on extensive reading of literature review. While preparing the questionnaire ambiguous or vague wordings were avoided to ensure that respondents would read and answer the question consistently on different occasions in the same context. The data from

different sources can help for crosschecking the information obtained. To assess the goodness of the instrument measures, the instrument was subjected to the construct validity and reliability tests.

Reliability of the items/questions has been checked and rechecked before the distribution of a questionnaire was analyzed by using Alpha Test. The term reliability is defined as consistency of measurement or stability of measurement over a variety of conditions in which basically the same results should be obtained (Hoffman & Bateson, 2010; Jacob & Ulaga, 2008).

Cronbach's alpha coefficient is the most popular and commonly used technique to estimate reliability or internal consistency of assessments and questionnaires in the behavioral sciences coefficients Kurata & Nam (2010). Reliability of the items/questions has been checked and rechecked before the distribution of questionnaires was analyzed by using Alpha Test. The accepted alpha value is ranging from 0.70-0.95, Cochran (1977). Thus, the pre-test result revealed that the calculated value aimed to test the reliability of the instrument was found to be relevant, because reliability calculated value above 0.70 is considered to be reliable instrument. A summary of the reliability statistics of the data from the SPSS version 20 is presented in Table 3.1

Table 3.1 Test of Reliability

<b>Variables</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>
Online service	6	.773
Inspection service	7	.827
Warranty service	4	.693
Spare parts supply	5	.830



Maintenance service	6	.880
Customer Satisfaction	6	.992
All variables	34	.972

Source: SPSS result, 2018

Since the value of cronbach alphas for this study is above 0.77 for all scale variables, the data collected from respondents was reliable and consistent with the scale. In simple term the result is confirmed the reliability and consistency of the questionnaire.

### **3.8. Ethical Consideration**

When the research performing, name of the respondents and other identifying information was not used in the questioner explained the study benefits well and it safes the convenience of respondents. The researcher also safeguarded all information related to the participants. Their privacy, identity and confidentiality are maintained by assigning them code numbers instead of names (anonymity).

## **CHAPTER FOUR**

### **4. RESULTS AND DISCUSSIONS**

This chapter deals with analysis and interpretation of the collected data through questionnaires. Which Included a Reliability analysis, demographic information of the respondents, descriptive analysis, correlation, assumptions and Regression analysis are presented through SPSS version 20.

#### **4.1. Response Rate**

Three hundred seventy-one questionnaires were distributed to the respondent and out of that (357) of them were returned for analysis (a response rate of 96.2%).

## 4.2. Demographic Characteristics

Descriptive statistics were used for demographic factors of gender, education qualification, Length of years as a customer of Lifan Motor, Frequency of after sale service used from Lifan motors and type of after sales service used from Lifan motors.

Table 4.1: Demographic characteristics of Sample Respondents

<b>Demographic Factor</b>		<b>Frequency</b>	
		<b>In Number</b>	<b>In percent</b>
Gender	Male	242	67.8
	Female	115	32.2
	<b>Total</b>	357	100

Educational qualification	Primary school	110	31
	Secondary school	101	28
	Certificate or Diploma	78	22
	First degree	57	16
	Master's degree and above	11	3
	<b>Total</b>	<b>357</b>	<b>100</b>
Length of years as a customer of Lifan motors	Less than 1 Years	107	30
	2-3 year	118	33
	3-4 year	87	24
	4-5 year	39	11
	More than 5 year	6	2
	<b>Total</b>	<b>357</b>	<b>100</b>
Frequency of after sale service used from Lifan motors	Two times	105	29.4
	3times and above	252	70.6
	<b>Total</b>	<b>357</b>	<b>100</b>
Type of after sales service used	Maintenance service	99	28
	Spare parts supply service	79	22
	Warranty service	64	18

	Inspection service	16	4
	On line (telephone) service	12	3
	Two or more service used	87	24
	<b>Total</b>	<b>357</b>	<b>100</b>

Source: Own survey, 2018

As table 4.3 above indicated, 242 (67.8%) of Lifan motors after-sales service sample customer were male, the rest 115 (32.8%) of were female. This shows that the number of the male respondents were greater than the number of female respondents.

Concerning educational level, 110(31%) of the samples respondents has Primary school certificate, and 101(28%), 78(22%), 57(16%), and 11(3%) accounts for sample respondents who have Secondary school, Certificate or Diploma, first degree, and who have Master's degree and above respectively. Based on this, this shows that most the participants were well-qualified.

Regarding years of experience, 118 (33%) of the respondents were in the range of 2-3 year, 107 (30%) of the respondents are in the range of Less than 1 Year, 87 (24%) are in the range of 3-4 year, and 39 (11%) of the respondents are in the range of 4-5 year and 6 (2%) of the respondents are in the range of More than 5 years. In general, the data reveals that from the total respondents 250, sample respondents had at least one-year experience as a customer of Lifan motors. This shows that it is a favorability to have them because their experience contributed tremendously to analysis in detail their experience on after seals service of the Lifan motors.

As shown in Table 4.1 from Lifan Motors after service department, 252 (70.6%) of sample customers has got after-sales service three times and more, from the company. Also, 105(29.4 %)

of sample customers have got after-sales service two times from the company. As a result, measuring the satisfaction of customers on after-sales service of Lifan motors is possible.

Regard to type of after-sale service used Maintenance service from Lifan motor are 99 (28%). The Respondents answered in the two or more after sales service used this, closely followed by the Maintenance service and Spare parts supply service at 87(24%) and 79(22%) respectively. Warranty service represented 64 (18%), the Inspection services 16(4%) of the respondents. The Online (telephone) service represented the smallest number of replies which is 12(3%) of all the respondents. This indicates that from the total sample of respondents at least one respondent has used one type of after-sales service from the total types of after-sales service Lifan motors offered. So, this study has analyzed the effect of after-sales service of Lifan motors the customer satisfaction.

### 4.3. Descriptive Analysis

This section discuss about the descriptive statistics for data which was gathered through questionnaires to examining the Effect of after-sales services on Customer satisfaction in Lifan motor. According to Kumar (2014), the mean score below 3.39 is considered as low; the mean score from 3.40 up to 3.79 is considered as moderate and mean score above 3.8 is considered as high as it shown in the table below.

**Table 4.2 Comparison Bases of Mean Score of Five Point Likert Scale Instruments**

No	Mean value	Description
1	<3.39	Low
2	3.40 up to 3.79	Moderate
3	>3.8	High

In order to see the general perception of the respondents regarding selected reward practices and turnover intention in the institute, the study used the following table.

Table .4.3 Descriptive Statistics

Dimensions	N	Mean	Std.
Online service	357	2.7451	0.74864
Inspection service	357	2.8889	0.97700
Warranty service	357	2.7719	0.84884
Spare parts supply	357	2.7546	0.98703
Maintenance service	357	2.4398.	0.79541

Source: SPSS result, 2018

As Table 4.4 above, the mean value of online service was =2.7451 (SD=0.74864) which indicated that, majority of the respondents did respond below the lower limit of moderate (3.40) on the online service of Lifan motors. This implies that the online service of Lifan motors is Unsatisfactory for the respondents of this study.

The mean score of the Inspection service was =2.8889 (SD=0.97700). This indicates that, majority of the respondents did respond below the lower limit of moderate (3.40) on Inspection service of

Lifan motors. This implies that the Inspection service of Lifan motors is Unsatisfactory for the respondents of this study.

The mean value of Warranty service was =2.7719 (SD=0.84884), this indicates that, majority of the respondents did respond below the lower limit of moderate (3.40) on the warranty service that was provided by lifan motors. This implies that Warranty service of Lifan motors is Unsatisfactory for the respondents of this study.

The mean score of the fourth after-sales service factors is spare parts supply of lifan motors and its mean score was 2.7546 (SD=0.98703), this mean score of spare parts supply is below neutral the lower limit of moderate (3.40). This implies that spare parts supply of lifan motors is not suitable for the respondents of this study.

The mean score of Maintenance service of lifan motors is 2.4398 (SD=0.79541). This mean score of Maintenance service is below the lower limit of moderate (3.40). This implies that the Maintenance service of Lifan motors is unsatisfactory for the respondents of this study.

#### 4.4. Correlation Analysis

According to (Cochran, 1977), positive values indicate positive correlation between the two variables, whereas negative values indicate negative correlation.

**Table 4.3 Inter-correlation analysis between the service quality dimensions, and customer satisfaction**

Correlations							
		Online service	Inspection service	Warranty service	Spare parts supply service	Maintenance service	Satisfaction Indicator
Online service	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	357					
Inspection service	Pearson Correlation	.596**	1				
	Sig. (2-tailed)	.000					
	N	357	357				
Warranty service	Pearson Correlation	.279**	.690**	1			
	Sig. (2-tailed)	.000	.000				
	N	357	357	357			



Spare parts supply service	Pearson Correlation	.781**	.481**	.680**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	357	357	357	357		
Maintenance service	Pearson Correlation	.490**	.684**	.599**	.675**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	357	357	357	357	357	
Satisfaction Indicator	Pearson Correlation	.710**	.682**	.582**	.541**	.493**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	357	357	357	357	357	357

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

Source: SPSS result, 2018

A zero value indicates that there is no association between the two variables. When  $r = (+) 1$ , it indicates perfect positive correlation and when it is  $(-) 1$ , it indicates perfect negative correlation. In the same way,  $r$  ranging from 0.50 to 1.00 may be regarded as a high degree of correlation. Based on The Pearson correlation result that is association with after-sales service variables with customer satisfaction presented on the above table 4.4, Online service with customer Satisfaction Correlation Coefficient is 0.477, this explain that there is positive relationship between the two variables. Inspection service and Satisfaction correlation coefficient is 0.682, this result indicates that there is strong and positive relationship between the two variables. Warranty service and Satisfaction Correlation Coefficient is 0.582, this explains that there is strong and positive relationship between

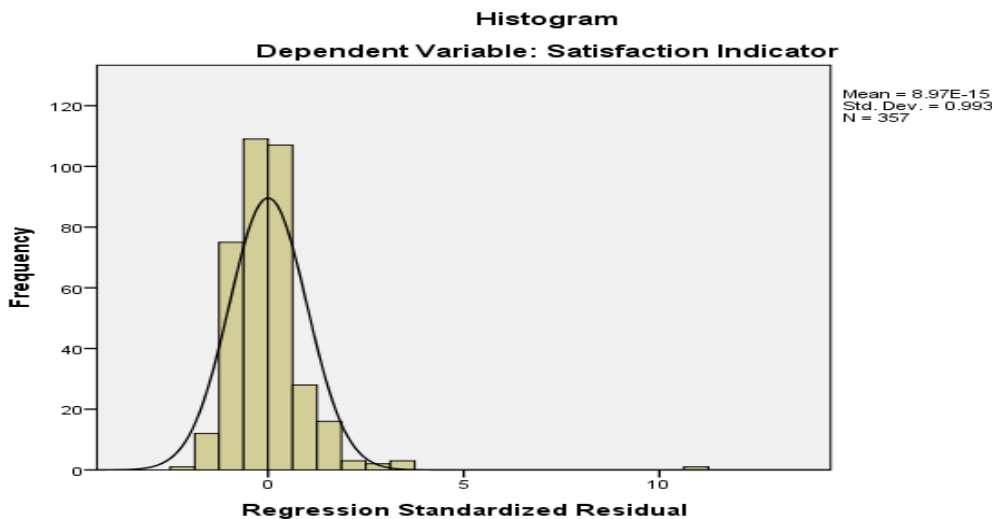
the two variables. Correlation coefficient result of Spare parts supply service and Satisfaction is 0.54, this also shows that there is a positive relationship between the two variables and Maintenance service and Satisfaction Correlation Coefficient is 0.493, this explain that there is positive relationship between the two variables. Hence the result implies there is a positive relationship between after-sales service variables and customer satisfaction.

## 4.5. Regression Analysis

### 4.5.1 Normality Assumptions Test

This study is a test for normality assumption and is presented graphically as follows

**Figure 2 - Normality test for residuals**



If the residuals are normally distributed, the histogram should be bell-shaped. Bryman, (1988). Therefore, from the above figure, the Histogram is bell-shaped; this implies that the residuals are normally distributed. Hence, the normality assumption is fulfilled.

### 4.5.2. Autocorrelation Assumptions Test

The Durbin Watson statistic is a number that tests for autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic is always between 0 and 4. The value

2 means that there is no autocorrelation in the sample of the study. Values approaching 0 indicate positive autocorrelation and values toward 4 indicate negative autocorrelation (Bryman, 1988).

**Table 4.4 Autocorrelation assumptions test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.973	.948	.947	.04686	1.965
a. Predictors: (Constant), Spare parts supply service, Maintenance service, Online service, Inspection service, Warranty service  b. Dependent Variable: Satisfaction Indicator					

Source: SPSS result, 2018

From the above table 4.4 indicate that the value Durbin Watson statistic result is 1.96. Thus, this study has tested for assumption of Autocorrelation and as it can be seen there is no Autocorrelation from the above result. Hence, the Autocorrelation assumption is fulfilled.

### **4.5.3. Linearity Assumptions Test**

In linear regression analysis it is assumed that there is a linear relation between the predictors and the dependent variable. This study measured the linearity by testing the goodness of fit of the model by conducting ANOVA test.

The test hypothesis is:

H0: The model is not a good fit

H1: The model is a good fit

$\alpha = 0.05$

**Table 4.5 linearity assumptions test**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	13.956	5	2.791	1271.111	.000
Residual	.771	351	.002		
Total	14.727	356			

a. Dependent Variable: Satisfaction Indicator

b. Predictors: (Constant), Spare parts supply service, Maintenance service, Online service, Inspection service, Warranty service

Source: SPSS result, 2018

From the above table 4.5, we concluded that the model is a good fit. Since, the p-value, 0.000 is less than  $\alpha = 0.05$ . This result indicates a linear relation between the dependent variable and the independent variables

#### 4.5.4. Assumption 4: The Multi collinearity Test

According to (Cochran, 1977) stated that presence of multi collinearity can be detected by just looking at variance inflation factor (VIF) value of each explanatory variable. That is, if VIF is more than 10, then, it signifies that there is interdependency among independent variables.

**Table 4.6 Multi collinearity assumption Test**

Variables	Collinearity Statistics
	VIF
Online service	1.221
Inspection service	2.171
Warranty service	2.257
Maintenance service	1.126

Spare parts supply service	1.517
----------------------------	-------

Source: SPSS result, 2018

The above table 4.6 indicate that the VIF values for Online service, Inspection service, Warranty service, Maintenance service and Spare parts supply service are below 10. Hence, the multi collinearity assumption is fulfilled in this study.

#### **4.5.5. The Effect of After-Sales Services on Customer Satisfaction in Lifan Motor**

Multiple linear regression (MLR) analysis applied to investigate the Effect of after-sales service of Lifan Motor on customer satisfaction. Coefficient of determination-R<sup>2</sup> is the measure of proportion of the variance of dependent variable, and the mean that is explained by the independent or predictor variables (Saccani, 2007). Higher value of R<sup>2</sup> represents greater explanatory power of the regression equation.

**Table 4.7 Model Summary (Independent variables as predictors to customer satisfaction).**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973	.948	.947	.04686

a. Predictors: (Constant), Maintenance service, Spare parts supply service, Online service, Inspection service, Warranty service

Source: SPSS result, 2018

Table 4.7 presents the model summary which states that customer satisfaction as a function of Maintenance service, spare parts supply service, online service, Inspection service and Warranty service. Based on the above model summary R square value indicated that the independent variables explained the dependent variable by .948. This result implies that after-sales service factors accounted for 94.8 percent of the variance in customer satisfaction. So, after-sales service variables explained the customer satisfaction by 94.8 percent.

**Table 4.8 ANOVA (Independent variables as predictors to customer satisfaction)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.956	5	2.791	1271.111	.000

	Residual	.771	351	.002		
	Total	14.727	356			
a. Dependent Variable: Satisfaction Indicator						
b. Predictors: (Constant), Maintenance service, Spare parts supply service, Online service, Inspection service, Warranty service						

Source: SPSS result, 2018

ANOVA tells overall goodness of fit of the model. F-statistic of the model is 1271.007 with significant at the 0.000 level which is quite good and entails that the model is a good fit at 5% level of significance.



#### 4.5.6. The regressions result

This section presents the regressions result of to examine the effect of online service, Inspection service, and Warranty service, spare parts supply service and Maintenance service on customer satisfaction. Regression analysis was presented as follows.

**Table 4.9: Regression analysis coefficients for after-sales service satisfaction of Lifan motors**

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.006	.008		.749	.454
Online service	.082	.082	.057	1.007	.315
Inspection service	.542	.096	.331	5.625	.000
Warranty service	.212	.062	.227	3.438	.001
Spare parts supply service	.315	.039	.291	8.169	.000
Maintenance service	.479	.064	.171	23.168	.000
a. Dependent Variable: Satisfaction Indicator					

Source: SPSS result, 2018

Table 4.9 the independent variables, Inspection service, Warranty service, spare parts supply service and Maintenance service have a positive sign and  $P < 0.01$  however online service has

statistically insignificant at **5%** level of significance on customer Satisfaction. The researcher has used Un standardized Coefficients of the variables to interpret the result. To distinguish the effect of after-sales service components of Lifan motor on the satisfaction of the company’s customers this regression model applied the following regression analysis:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k + e_i$$

**Where,**

- $\beta_0$  = Point of intercept
- Y = satisfaction of customers in the after-sales services of Lifan motors
- $X_k$  = After-sales service components in Lifan Motor
- $\beta_k$  = Slope of the line
- $e_i$  = Error term associated with the  $i$ th observation

**Table 4.10 Summary of Regression**

$$\begin{aligned} \text{Satisfaction of Lifan Motor Customer} = & 0.006 + 0.542 \text{Inspection service of Lifan Motor} + \\ & 0.212 \text{Warranty service of Lifan Motor} + 0.315 \text{Spare parts supply service of Lifan Motor} \\ & + 0.479 \text{Maintenance service of Lifan Motor} + \epsilon_i \end{aligned}$$

Source: SPSS result, 2018

### **Inspection service**

As shown on table 10, the results of regression regarding Inspection service show that there is positive relationship and statically significant effect on customer satisfaction. un standardized Coefficients of Inspection service is 0.542 which implies that on average a percent increase in Inspection service will increase Satisfaction of Lifan Motor Customer by 54.2 percent and vice versa. Thus, from the results it can be conclude that Inspection service of Lifan Motor has effect on customer satisfaction.

## **Warranty service**

Warranties serve as persuasive marketing tools: (i) promotional and (ii) protectoral. As a promotional tool, warranties serve to promote the reliability and quality of a product with longer and better warranty terms implying a more reliable product. As a protectoral tool, warranties provide assurance to consumers against defective products that fail to perform satisfactorily over the warranty period. Warranties have played an important role in the automobile sector (Kumar, 2014).

The results of the regression results relating with Warranty has statistically significant effect on customer satisfaction. un standardized Coefficients of Warranty service is 0.212 which implies that on average a percent increase in Warranty service will increase Satisfaction of Lifan Motor Customer by 21.2 percent and vice versa. The result indicates that Warranty service of lifan motors can determine customer satisfaction.

## **Spare parts supply service**

Muhammad, (2011) stated that different types of services have different success factors. In spare parts supply for example, pricing, availability, delivery speed, and combined technical and customer database are key to customer satisfaction and profitability.

The result of regression regarding Spare parts supply service of Lifan Motor has a positive and significant effect on Lifan Motor customer satisfaction. As shown above in table 4.11, the regression un standardized Coefficients of Spare parts supply service of Lifan Motor is 0.315 which implies that on average when a percent increase in Spare parts supply service of Lifan Motor will

increase Satisfaction of Lifan Motor Customer by 31.5 percent and vice versa. The result indicates that Spare parts supply service of lifan motors can determine customer satisfaction.

### **Maintenance service**

According to Ehinlanwo and Zairi (1996) a car or truck today may contain 10,000 mechanical parts. As a result, the vehicle should get maintenance services. In order to get maintenance service vehicle owners, visit their automotive dealer frequently.

The results of the regression show that Maintenance service of Lifan Motor has a positive and statistically significant effect on customer satisfaction with un standardized Coefficients of Maintenance service is 0.479 which implies that on average a percent increase in Maintenance will increase Satisfaction of Lifan Motor Customer by 47.9 percent and vice versa. This result indicates that, Maintenance service of Lifan Motor has impact on the customer satisfaction Lifan Motor.

According to Sudharshan (2010), when customers believe that a service price is fair, the purchase behavior of customers tends to be repeated. In contrast, if customers feel that certain service does not deserve its price, they will not repeat purchase behavior. In addition, firms and customers compare the price and quality of services with the same services and evaluate by making comparisons with other references, and the same for time it takes to get service. Moreover, if a service fulfills the customer's expectations, the customer will be pleased and consider that the service is acceptable. Therefore, to manage price, time and quality decisions effectively, marketing managers should assay respond of consumers to those changes.

Generally, the main purpose of this study is to analysis the effect of After-sales service on Lifan motor customer's satisfaction. From the above data analysis, after-sales variables which are, Inspection service of Lifan Motor, Warranty service of Lifan Motor, Spare parts supply service of Lifan Motor and Maintenance service of Lifan has effect on customer satisfaction at 5% level

of significance. However, the regression result of the study revealed that online service of Lifan Motor has statistically insignificant effect on Lifan motor customer's satisfaction at 5% level of significance.

## **CHAPTER FIVE**

### **Summary of the Findings, Conclusions and Recommendation**

This chapter deals with the conclusions drawn from the findings and recommendations based on the findings of the study. This chapter is organized into two subsections. Section 5.1 summary of the findings and Conclusions and section 5.2 Recommendations.

#### **5.1 summary of the findings and Conclusion**

Based on the data analysis and discussion of the results the following summary of findings and conclusions are drawn:

Demographic background of the sample indicates that Lifan Motor have more male customers than female customers concerning education background the largest groups of Respondents' levels of education are Primary school and Secondary school. Majority of the respondents the length of stay as a customer of Lifan motors in the range of 2-3 year. More than half of the Respondents vest Lifan motors after-sales service department for 3 times and above years. Most of customers have used Maintenance, Spare parts supply, Warranty service, Inspection service rather than Online (telephone) service.

From the result of the study it is possible to conclude that the components of after sale services that provide by Lifan Motor to their after sale service customers are Online (telephone) service, Spare parts supply, Warranty, Inspection and Maintenance. The result of the descriptive statistics tells that

respondents are not satisfied by the current Online (telephone) service, Spare parts supply, Warranty service, Inspection service and Maintenance service of Lifan motor.

The regression result for each after sale service indicate that, the regression result of Online (telephone) service of Lifan motor has not statistically significantly effect on the company customer satisfaction. In all parameters of spare part supply of lifan motor has a positive coefficient and it has statistically significant effect on the company customer satisfaction. Warranty service of Lifan motor has a positive coefficient and it has statistically significant effect on the company customer satisfaction. Maintenance service of Lifan motor has a positive coefficient and it has statistically significant effect on the company customer satisfaction. In addition, the regression result indicates that Inspection service of of Lifan motor has a positive coefficient and it has statistically significant effect on the company customer satisfaction.

This implies that, Inspection service, Warranty, Spare parts supplies and maintenance service have effect on the company customer satisfaction. However, online (telephone) service is not significantly related with satisfaction of after-sales service customers. Hence, online (telephone) has no effect on customer satisfactions of lifan motors.

This study examined the effect of after-sales service on customer satisfaction in the case study of lifan motors. The researcher found that the after-sales service plays a major role in satisfying customer and have significant effect on customer satisfaction. The study found that after sales service indices (maintenance service, spare part supply, installation and warranty) were significantly independent and joint predictors of customer satisfaction. Thus, it filled the empirical gap between after sales services on customer satisfaction on lifan motors.

## **5.2. Recommendations**

Based on the major findings of the study, the researcher forwards the following recommendations to the management and other stakeholders.

The major reason to conduct this study was the complaining and dissatisfaction of the company's customers on after-sales service components. This study provides some findings that help us further our knowledge of after-sales service in Lifan Motors, and its effect on customer satisfaction. Based on the findings of the study revealed that Inspection, Warranty, Spare parts supply and maintenance service of Lifan Motors has a strong effect on customer satisfaction.

Effective after-sales service is not a slogan, advertising program, a button that everyone wears, or a banner touting a "we care attitude." It is a mindset that good sales people develop to improve customer satisfaction and retention. In this regard the following suggestions are given

- ❖ Regarding inspection, the company could work more on the improvement of recording system of vehicle history report. The company should also provide customer handling training to its employee so that; they will learn how to make deadlines as priorities; the support technicians will also develop due respect customers time because self-disciplined support technicians are more reliable.
- ❖ The company should extend the duration of warranty service that provides adequate time to deliver service as promised.
- ❖ The company needs to explore use of just in time inventory. This means you order & get spare parts just before maintenance jobs are to be done. At the same time the company should avoid job delays because spare parts are not available. Additionally, the company could review forecasted demand and look for parts that may have an incorrect order setting. It should be noted that the most typical cause for stock out is the delay that may exist within a supply chain (internally/externally).
- ❖ The company should use advanced maintenance equipment and excellent technology can improve correctness or accuracy of automobile failure detection and maintenance efficiency, reduces maintenance and lowers maintenance cost, thus making maintenance work made under controllable conditions and guaranteeing maintenance quality and continuous improvement.

However, this study is based on the findings from Lifan Motors' customers alone. Hence, the interpretation cannot be generalized for other automotive companies. Also, this study did not analyse other aftersales service components of other automotive companies that can affect customer satisfaction. So, future research should examine on other factor such as, documentation, installation and other factors that may have effects on customer satisfaction.

## References

- Bryman A, 1988, *Quantity and Quality in Social Research*, London: Routledge
- Adrian, P. et al. 1995. *Relationship marketing for competitive advantage: winning and keeping customers*. London: Butterworth-Heinemann Ltd.
- Ahn JS, Sohn SY, 2009. *Customer pattern search for after-sales service in manufacturing*. J. Expert. Sys. Appl. 36: 5371-5375.
- Armistead C, Clark G, 1990. After sales support strategy. OMA-UK Conference on Manufacturing Strategy. Bundschuh RG, Dezvane TM, 2003. How to make after sale services pay off. *The McKinsey Quarterly*. 4(2):116-127.
- Asugman, G., Johnson, JL. and McCullough, J. 1997, "The role of after-sales service in international marketing", *Journal of International Marketing*, Vol. 5, No. 4, pp. 11-28
- Bei, V., 2008, *The Role of Roadside Assistance in After Sales Service in Automotive Industry: Evaluations based on after sales breakdown service activities of Chrysler group*.
- Bundschuh RG, Dezvane TM, 2003. How to make after sale services pay off. *The McKinsey Quarterly*. 4(2):116-127.
- Cochran, W.G.1977. *Sampling Techniques*, 3rd edition. New York: John Wiley & Sons.
- Cavalieri, S., Gaiardelli, P. and Ierace, S. (2007), "Aligning strategic profiles with operational metrics in aftersales service", *International Journal of Productivity and Performance Management*, Vol. 56, Nos. 5 & 6, pp.436-455



- Fornell, C. 1992. A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, Vol. 43, 36-45
- Goffin, K., 1999. Customer support: *A cross-industry study of distribution channels and strategies*. *International Journal of Physical Distribution & Logistics Management*
- Hoffman KD, Bateson JEG, 2010. *Services Marketing: Concepts, Strategies, & Cases*. Casebound, 4th Edition. Publisher: Cengage Learning.
- Hussain N, Bhatti WA, Jilani A, 2011. An empirical analysis of after sales service and customer satisfaction. *Management & Marketing Challenges for the Knowledge Society*. 6 (4):561-572.
- Johnston LD, O'Malley PM, Bachman JG. 1997. National survey results on drug use from the Monitoring the Future Study, 1975-1995. Volume II: Colle.
- Kumar Mishram A, 2014. A study on relationship between effective after sales service and customer overall satisfaction at TATA Motors with special reference to Ramgarhia Ramgarh Cantt, Jharkhand. *International Journal of Research in Business Management*. 2(3): 79-88.
- Kurata H, Nam SH, 2010. After-sales service competition in a supply chain: Optimization of customer satisfaction level or profit or both? *Int. J. Prod. Econ.* 127: 136-146.
- Mohammadipour pamsari M, Minavandchal E, 2013. Recognizing the effect of after sale services operational characteristics on resale of products. *World of Sciences Journal*. 4: 149-169.
- Muhammad, JN. 2011, Customer information driven After Sales service management: Lesion from spare parts logistics, *PhD Thesis, Erasmus University Rotterdam*.
- Raddats, C. 2011, "Aligning industrial services with strategies and sources of market differentiation", *Journal of Business & Industrial Marketing*, Vol. 26, No. 5, pp. 332-343
- Potluri, R., and Hawariat, H., 2010. Assessment of After-Sales Service Behaviors of Ethiopia Telecom Customers: *African Journal of Economic and Management Studies*, 1(1), pp 75-90.

- Rigopoulou, I., Chaniotakis, I., Lympelopoulos, C. and Siomkos, G. 2008, "After-sales service quality as an antecedent of customer satisfaction: the case of electronic appliances", *Managing Service Quality*, Vol. 18, pp. 512-527.
- Rizka M, Widji A, 2013. The effect of service quality and the mediating role of customer relationship marketing TELKOM speedy in Jember Area. *Review of integrative Business & Economics*. 2(1): 491-502.
- Kotler. H, & Keller J. 2012, "*Managing After Sales services: strategies and inter firm relationships*", PhD Thesis, Diph-Kfm Technic, Universitatstuttgart.
- Saccani, N., Johansson, P. and Perona, M. 2007, "Configuring the after-sales service supply chain: a multiple case study", *International Journal of Production Economics*, Vol. 110, Nos. 1 & 2, pp. 52-69.
- Sudharshan, G., 2010. *A Study of Customer Satisfaction on After Sales and Service Conducted at Arpita Bajaj Hassan*.
- Urbaniak, AJ. 2001, "After the sale: what really happen to customer service", *American Salesman*, Vol. 46, No. 2, pp. 14-17.
- Yuen EFT, Chan SSL, 2010. The effect of retail service quality and product quality on customer loyalty. *Journal of Database Marketing & Customer Strategy Management*. 17: 222-240.
- Yuqi Li 2007 *Determinants of Banks' Profitability and Its Implication on Risk Management Practices: Panel Evidence from the UK, the University of Nottingham*.



# Annexes

### Test of Reliability

<b>Multidimensional items</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>
Online service	6	.880
Inspection service	7	.827
Warranty service	4	.693
Spare parts supply	5	.830
Maintenance service	6	.773
All after seals service items	28	.961

Customer Satisfaction	6	.992
All items	34	.972

Correlations							
		Online service	Inspection service	Warranty service	Spare parts supply service	Maintenance service	Satisfaction Indicator
Online service	Pearson Correlation	1	.690	.297	.118	.490	.477
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	357	357	357	357	357	357

Inspection service	Pearson Correlation	.596	1	.409	.589	.486	.682
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	357	357	357	357	357	357
Warranty service	Pearson Correlation	.279	.690	1	.680	.599	.582
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	357	357	357	357	357	357
Spare parts supply service	Pearson Correlation	.781	.481	.680	1	.756	.541
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	357	357	357	357	357	357
Maintenance service	Pearson Correlation	.490	.684	.599	.675	1	.493
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	357	357	357	357	357	357
Satisfaction Indicator	Pearson Correlation	.710	.682	.582	.541	.493	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	357	357	357	357	357	357



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

**ANOVA (Independent variables as predictors to customer satisfaction)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.669	5	2.734	1131.007	.000 <sup>b</sup>
	Residual	1.058	351	.003		
	Total	14.727	356			

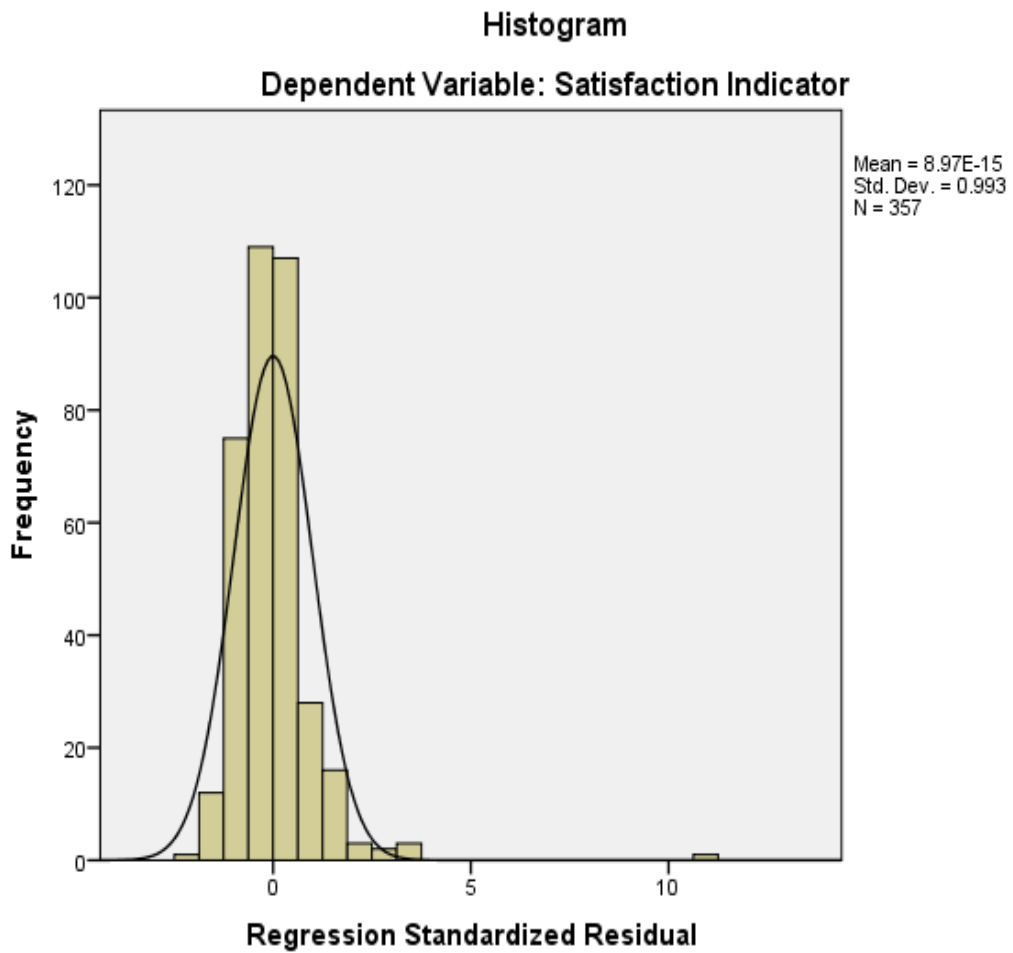
a. Dependent Variable: Satisfaction indicator
b. Predictors: (Constant), Maintenance service, Spare parts supply service, Online service, Inspection service, Warranty service

**Regression analysis coefficients for after sale service satisfaction of Lifan motors customers.**

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
(Constant)	.014	.009		1.499	.013	
Online service	.693	.098	1.281	17.200	.000	
Inspection service	.567	.113	.346	5.014	.000	
Warranty service	.180	.081	.193	2.210	.028	
Spare parts supply service	.430	.044	.398	9.873	.000	
Maintenance service	.103	.096	.071	1.075	.283	
a. Dependent Variable: Satisfaction indicator						

**Descriptive Statistics for the dependent and independent**

<b>Dimensions</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Independent variables	357	2.7408	.62878
Satisfaction indicator service	357	2.8445	.85407



**Autocorrelation assumptions test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.973	.948	.947	.04686	1.965
<p>a. Predictors: (Constant), Spare parts supp service, Maintenance service, Online service, Inspection service, Warranty service</p> <p>b. Dependent Variable: Satisfaction Indicator</p>					

**linearity assumptions test**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	13.956	5	2.791	1271.111	.000
Residual	.771	351	.002		
Total	14.727	356			

a. Dependent Variable: Satisfaction Indicator

b. Predictors: (Constant), Spare parts supp service, Maintenance service, Online service, Inspection service, Warranty service

**Multi collinearity assumption Test**

Variables	Collinearity Statistics
	VIF

Online service	1.221
Inspection service	2.171
Warranty service	2.257
Maintenance service	1.126
Spare parts supply service	1.517

**Model Summary (Independent variables as predictors to customer satisfaction).**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973	.948	.947	.04686
a. Predictors: (Constant), Maintenance service, Spare parts supply service, Online service, Inspection service, Warranty service				

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.956	5	2.791	1271.111	.000
	Residual	.771	351	.002		
	Total	14.727	356			
a. Dependent Variable: Satisfaction Indicator						
b. Predictors: (Constant), Maintenance service, Spare parts supply service, Online service, Inspection service, Warranty service						

**Regression analysis coefficients for after sale service satisfaction of Lifan motors**

Coefficients				
	Unstandardized Coefficients	Standardized Coefficients		

Model	B	Std. Error	Beta	t	Sig.
(Constant)	.006	.008		.749	.454
Online service	.082	.082	.057	1.007	.315
Inspection service	.542	.096	.331	5.625	.000
Warranty service	.212	.062	.227	3.438	.001
Spare parts supply service	.315	.039	.291	8.169	.000
Maintenance service	.479	.064	.171	23.168	.000
a. Dependent Variable: Satisfaction Indicator					



**ST MARY'S UNIVERSITY**

**SCHOOL OF GRADUATE STUDIES**

**Questionnaire**

Dear respondent,

I am **Rahel Tenkir** a post graduate student at **St. MARY'S UNIVERSITY** School of graduate studies. Currently I am carrying out research for my master's thesis with a research title of " Effect of after sale services on customer's satisfaction: the case of Lifan Motors.

The purpose of the study is to investigate effect of after seals service with respect to customer satisfaction your genuine responses on this questionnaire are valuable for the quality and validity of the data to be used in the course of this study. Therefore, I kindly request you to voluntarily participate in filling out this questionnaire. Thank you in advance for your cooperation.

If you have any questions or concerns about completing the questionnaire, please contact me via the address provided below. Please note that your responses are confidential and your name and department will not be shared.

**Rahel Tenkir**

Mobile: +251 912 70 56 56

Email: r.tenkir@yahoo.com

**Instruction**

- No need to mention name on the questioner.
- The questioner includes both open and close ended questions. Use the mark [√] for the close ended and a brief answer for the open one.

**Part I: Demographic characteristics**

1. Gender:

A. Male [ ]      B. Female [ ]

2. Educational qualification

Primary school                      [ ]  
Secondary school                    [ ]  
Certificate or Diploma            [ ]  
First degree                         [ ]  
Master's degree and above        [ ]

3. Length of years as a customer of Lifan motors

Less than 2 year                    [ ]  
2-3 year                                [ ]  
3-4 year                                [ ]  
4-5 year                                [ ]  
More than 5 year                    [ ]

4. How many times have you used the after-sales service from Lifan motors?

A. Two times [ ]                      B. Three times and above        [ ]

5. From the following after-sales service of Lifan motors which type of after sales service you have used so far.

On line service (telephone) [ ]

Inspection [ ]

Warranty [ ]

Spare parts supply [ ]

Maintenance service [ ]

Two or more after sales service are used [ ]

**PART TWO: Questions related to after sales service**

Please tick [√] the appropriate box for your answers and rank each statement as follows:

5 = strongly agree

4= agree

3 = neutral/ not sure

2 = disagree

1= strongly disagree

**Depending on your experience, please rate on the following after sale services of Lifan motor**

	<b>Level of agreement</b>
--	---------------------------

<b>1. On line service (telephone)</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
The telephone operator of Lifan motors is polite and courteous while answering the phone					
Lifan Motor has a call center that is a multi-line phone answering system takes messages and transfers callers to the appropriate staff member					
The telephone line service of lifan motors is committed to providing excellent customer service and enjoys a fast paced after sales service					
lifan motors take feedback by phoning to you					
Lifan motor Update you the service period					
Overall On-line service (telephone) of lifan motors is suitable for me					

<b>2. Warranty</b>	<b>Level of Agreement</b>				
	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
The length of warranty service that was provided by lifan motors was appropriate for me					
The warranty of lifan motors is implemented as promised					
Lifan motors provides adequate information about warranty					
Overall I am satisfied by the warranty for my car provided by lifan motor					

<b>3. Inspection</b>	<b>Level of Agreement</b>				
	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Lifan Motor has a good recording system of Vehicle History Report					
The Vehicle Inspection Checklist of lifan motor (vehicle exterior, vehicle interior, tires and wheels etc...) is condescend					
The Scheduled of inspection of lifan motor is suitable					
The inspectors of lifan motor are skill full					
The Inspection staffs in lifan motors are polite and courteous					
lifan motor makes a reliable and prompt inspection service					
Overall Vehicle Inspection of lifan motor is suitable for me					

<b>4. Spare parts supply</b>	<b>Level of Agreement</b>				
	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
Spar part supply of lifan motors is available					
lifan motors delivery of spare parts is prompt					
The spare parts lifan motors is genuine/original					
The price for spare parts that lifan motors provide is fair					
Overall spare part supply lifan motors is suitable for me					

<b>5. Maintenance service</b>	<b>Level of Agreement</b>				
	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>DA</b>
lifan motor's maintenance service Solve the problem of my car					

The Time it takes for maintenance in lifan workshop is appropriate					
lifan motors maintenance workshop has skill full technical					
life motors staffs working on maintenance is polite and courteous					
The Price for maintenance service of lifan motors reasonable					
Overall maintenance service of lifan motor is suitable for you					



5. Depending on your experience, how would you rate your overall satisfaction for the following companies of after sale services of Lifan motor?

<b>6. Satisfaction indicator</b>	<b>Level of Agreement</b>				
	<b>5 SA</b>	<b>4 A</b>	<b>3 N</b>	<b>2 D</b>	<b>1 SA</b>
I feel safe and satisfied when using after sales services from lifan motors					
The employees of lifan motors was able to render the after sales service according to my expectations					
I am satisfied with the amount I paid for after sales services I received from lifan motors					
I am satisfied with time it took to after sales services or the delivered speed of after sales services by lifan motors					

I am satisfied with the workwise and the capability staffs on the department of lifan motors					
I am satisfied with the overall after sales services offered by lifan motors					

**SECTION III: information on after service and customer satisfaction**

1. Please State factors that you think could help improve on the after sales of lifan motors in the satisfaction of customer

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2. Please state the after sales service that was disappointing/challenging for you by overall the companies after sales service

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3. If you have any additional comments please state

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*Thank you very much!!!*



**ቅድስተ ማርያም ዩኒቨርሲቲ**

**የማርኬቲንግ ማኔጅመንት ት/ክፍል**

**መጠይቅ**

**የተከበራችሁ አስታየት ሰጪዎች**

እኔ ራሔል ጠንክር በቅድስተ ማርያም ዩኒቨርሲቲ የማርኬቲንግ ማኔጅመንት ት/ክፍል የድህረ ምረቃ ተማሪ ስሆን መስፈርቶችን ለማሟላት የሚካሄድ የምርምር ጥናት በመስራት ላይ እገኘላለሁ። የጥናቴ ርዕስ ከሽያጭ በኋላ ግልጋሎት በደንበኞች እርካታ ላይ ያለውን ተፅዕኖ በሊፋን ሞተርስ የመኪና አቅራቢ ድርጅት ላይ ሲሆን፤ ከእዚህ በታች ለተቀመጡት መግለጫዎች የሚሰጧቸው ምላሾች ለጥናት ስራዬ ታላቅ ጠቀሜታ ስላላቸው ጥያቄዎቼን በጥንቃቄ እና በሃቀኝነት እንዲመልሱ በትህትና እጠይቃለሁ። መልሶ ሚስጥራዊነቱ ተጠብቆ ለትምህር ዓላማ ብቻ እንደሚወልድ ለማረጋገጥ እወዳለሁ፤ ማንኛውም ጥያቄ ካልዎ እባክዎን በስልክ ቁጥር

ራሄል 0912 70 56 56

መመሪያ

ስምዎን በመጠይቁ ላይ መፃፍ አይጠበቅብዎትም

መጠይቁ መብርሪያ የሚያስፈልጋቸውን እና አጭር ጥያቄዎችን አካትቷል.

1. ያታ፡

ሀ. ወንድ [ ]                      ለ. ሴት [ ]

2. የት/ደረጃ [ ]

ሀ. የመጀመሪያ ደረጃ [ ]

ለ. ሁለተኛ ደረጃ [ ]

ሐ. ዲፕሎማ [ ]

መ. ዲግሪ [ ]

ሠ. ማስተርስ ዲግሪ እና በላይ [ ]

3. የሊፋን ሞተርስ ደንበኛ ከሆኑ ምን ያህል ጊዜ ሆኖት፤

ሀ. ከሁለት ዓመት በታች ( )

ለ. 2-3 ዓመት ( )

ሐ. 3-4 ( )

መ. 4-5 ( )

ሠ. ከ5ዓመት በላይ ( )

4. በሊፋን ሞተርስ ከሽያጭ በኋላ አገልግሎት ምን ያህል ጊዜ ተጠቅመዉ ያዉቃሉ፤

ሀ. ሁለት ጊዜ ( )

ለ. ሶስት ጊዜ እና ከዛ በላይ ( )

5. ከታች ከተዘረዘሩት የሊፋን ሞተርስ ከሽያጭ በኋላ አገልግሎት የትኛውን እስከ አሁን ተጠቅመዉ ያወቃሉ;

ሀ. የስልክ ጥሪ ግልጋሎት ( )

ለ. የመኪና ፍተሽ ( )

ሐ. ዋስትና ( )

መ. የመላወጫ አቅርቦት ( )

ሠ. የጥገና አገልግሎት( )  
ተጠቅመዋል ( )

ረ. ከሁለት ዓመት እና ከዛ በላይ ከሽያጭ ኋላ

ክፍል ሁለት:

እባክዎ በሳጥኑ ውስጥ ትክክለኛውን መልሶን በደረጃቸው መሰረት ያስቀምጡ:

5 በጣም እስማማለዉ

4 እስማማለዉ

3 መካከለኛ

2 አልስማማም

1 በፍፁም አልስማማም

ካሎት ልምድ በመነሳት የሊፋን ሞተርስን ከሽያጭ በኋላ አገልግሎት ይመዘኑ:

1. የስልክ ጥሪ ግልጋሎት	ደረጃ				
	5	4	3	2	1
የሊፋን ሞተርስ የስልክ አገልግሎት ሰጪዎች					

ትህትህና በተሞላበት መንገድ ነው በስልክ ምላሽ የሚሰጡት					
ሊፋን ሞተርስ የጥሪ ማዕከል ያላቸው ሲሆን በሁለት የመስመር ስልክ በኩል ምላሽ በመስጠት እና መልዕክት ወደ ትክክለኛው የመስሪያ ቤቱ ሰራተኛ ያደርሳሉ					
የሊፋን ሞተርስ የስልክ መስመር በጣም ጥሩ የሆነ የደንበኞች አገልግሎት በማቅረብ እና የፈጠነ ከሽያጭ በኋላ አገልግሎት በመስጠት ይደሰታሉ					
ሊፋን ሞተርሶች ስልክ በመደወል አስታየቶትን ይቀበላሉ					
ሊፋን ሞተርሶች በየጊዜው የአገልግሎት ጊዜዎን ያሳወቁታል					
በአጠቃላይ የሊፋን ሞተርስ የስልክ ጥሪ አገልግሎት ለእኔ አመቺ ነው					

2. ዋስትና	ደረጃ				
	5	4	3	2	1

በሊፋን ሞተርስ ያገኘሁት የዋስትና አገልግሎት ለእኔ ተስማሚ ነው።					
የሊፋን ሞተርስ ዋስትና በቃላቸው መሰረት ነው የሚፈፀመው።					
ሊፋን ሞተርሶች ስለቃስትና በቂ የሆነ መረጃ ነው የሚሰጡት					
በአጠቃላይ ከሊፋን ሞተርስ በማገኘው የመኪና ዋስትና እረክቻለሁ።					



3. የመኪና ፍተሻ	ደረጃ				
	5	4	3	2	1
ሊፋን ሞተርሶች ጥሩ የሆነ የመኪና ታሪክ መረጃ አያያዝ ዘዴ አላቸው።					
የሊፋን ሞተርስ የመኪና ፍተሻ መመርመሪያ ዝርዝር (የወጭ ክፍል ፣ ውስጣዊ የመኪና ክፍል፣ ጎማ፣ እና ቸርኬ ወዘተ...) ያካትታል					
የሊፋን ሞተርስ የመኪና ፍተሻ መርሃ ግብር ተስማሚ ናቸው።					
የሊፋን ሞተርስ የመኪና ፍተሻዎች በብቃት የተሞሉ ናቸው።					
በሊፋ ሞተርስ የሚገኙ የመኪና ፍተሻ አባላት ትሩ ፀባይ እና በትህትና የተሞሉ ናቸው።					
ሊፋን ሞተርሶች አስተማማኝ እና ፈጣን የመኪና ፍተሻ ይሰጣሉ					
በአጠቃላይ የሊፋን ሞተርስ የመኪና ፍተሻ ለእኔ ተስማሚ ነው።					

4. የመለዋወጫ እቃ አቅርቦት	ደረጃ
--------------------	-----

	5	4	3	2	1
በሊፋን ሞተርስ የመለዋወጫ እቃ አቅርቦት ይገኛል					
ሊፋን ሞተርሶች ፈጣን የመለዋወጫ እቃ አቅርቦት ያደርጋሉ					
የሊፋን ሞተርስ የመለዋወጫ እቃዎች ኦሪጅናል ናቸው					
በሊፋን ሞተርስ የሚገኙ የመለዋወጫ እቃዎች ዋጋ ተመጣጣኝ ነው					
በአጠቃላይ በሊፋን ሞተርስ ያሉ የመለዋወጫ እቃ አቅርቦት ለእኔ ተስማ ነው					

5. የጥገና አገልግሎት	ደረጃ				
	5	4	3	2	1
የሊፋን ሞተርስ የጥገና አገልግሎት የመከናወኑን ችግር ቀርፎልኛ					
በሊፋን መጠገኛ ቦታ ለመከናወን ጥገና የሚወስደው ጊዜ ተገቢ ነው					
በሊፋን ሞተርስ የመጠገኛ ቦታ ብቃት ያላቸው					

ቴክኒሻኖች ይገኛሉ					
በሊፋን ሞተርስ የጥገና አገልግሎት ላይ የሚሰሩ አባላት ጥሩ ሰነድ ስነምግባር እና በትህትና የተሞሉ ናቸው።					
በሊፋን ሞተርስ ያለው የጥገና አገልግሎት ክፍያ ምኒያታዊ ነው።					
በአጠቃላይ የሊፋን ሞተርስ የጥገና አገልግሎት ለእኔ የተመቸ ነው።					

ከልምዶ በመነሳት ከታች የተዘረዘሩትን ሊፋን ሞተርስ የሚሰጣቸውን ከሽያጭ በኋላ አገልግሎት እርካታዎን በአጠቃላይ እንዴት ይለኩታል

6. እርካታዎን መግለጫ	ደረጃ				
	5	4	3	2	1
ከሊፋን ሞተርስ በማገኘው ከሽያጭ በኋላ አገልግሎት አስተማማኝነት እና እርካታ ይሰማኛል					
የሊፋን ሞተርስ ሰራተኞች ከሽያጭ በኋላ አገልግሎቱን እንደምጠብቀው ነው የሚያቀርቡልኝ					

በሊፋን ሞተርስ ባገኘሁት ከሽያጭ በኋላ አገልግሎት በከፈልኩት ክፍያ እረክቻለወ.					
በሊፋን ሞተርስ ከሽያጭ በኋላ አገልግሎት በወሰደወ ሰዓት እና ያቅርቦት ቅልጥፍና እረክቻለወ.					
በሊፋን ሞተርስ ባሉ ክፍሎች የሰራተኞች ስራወን ከማወቅ እና ከአቅም አንፃር እርካታ ይሰማኛል					
በአጠቃላይ በሊፋን ሞተርስ የሚሰጠወ ከሽያጭ በኋላ አገልግሎት እረክቻለወ.					

**ክፍል 3: የደንበኞች እርካታ እና ከሽያጭ በኋላ አገልግሎት መረጃ**

1. እባክዎ በሊፋን ሞተርስ ለደንበኞች እርካታ የሚሰጠወን ከሽያጭ በኋላ አገልግሎት ለማሻሻል ይረዳል የሚሏቸወን ነገሮች ይዘርዝሩ

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2. እባክዎ በአጠቃላይ በቀረበሎ ከሽያጭ በኋላ አገልግሎት ያልተደሰቱበትን/አስቸጋሪ የነበሩትን ነገሮች ይዘርዝሩ

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3. እባክዎ ተጨማሪ አስታያች ካልዎ ከዚህ በታች በያለውን ቦታ ይጠቀሙ

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**DECLARATION**

I the undersigned, declare that this thesis is my original work, prepared under the guidance of Mohammed. M (Assistant professor). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Rahel Tenkir

Name

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Signature

St. Mary's University, Addis Ababa May, 2018

## ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Mohammed. M

Advisor

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Signature



St. Mary's University, Addis Ababa May, 2018