THE IMPACT OF AFTER SALES SERVICE CHARACTERISTICS ON CUSTOMER SATISFACTION: A CASE ON A SUPERMARKET'S ELECTRICAL APPLIANCES DEPARTMENT

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DECLARATION

I hereby declare that:

(1) This Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) The word count of this research report is 21000

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Abstract

The purpose of this research is to investigate why the impact of after sale service influences the customer satisfaction on the electrical appliances. The study conducted was targeted to customers of large retail chain marketing electrical appliances. The primary purpose of this research is to investigate whether the impact of after sale service characteristic will affect the customer satisfaction. It was only targeted to customers who had purchased AEON electrical appliance for the past of 1 year. The target population for this research is around 500 customers. However, there is only 315 set of questionnaires is usable for analysis. The research conducted was based on quantitative methodology. The questionnaire was also designed electronically through the online survey software and distributed through emails and social networking websites. Through these questionnaires, researcher can discover more clearly and accurately about the relationship between 5 independent variables which are reliability, tangibility, responsiveness, assurance and empathy that serve as the factors to influence the customer satisfaction on the sales after service quality. The research analysis consists of normality test, reliability test, correlation coefficient and multiple regressions. Finding obtained indicated that responsiveness, reliability and tangibility is the most influence factor in influencing customer satisfaction. While, the other two factors i.e. assurance and empathy is also positive relationship with customer satisfaction. As a conclusion, the result in Pearson Correlation indicates that reliability and tangibility component has very strong, positive and significant relationship with customer satisfaction among respondent in Klang Valley.

CHAPTER 1
RESEARCH OVERVIEW

1.0 Introduction

In this chapter, the research is about the influence of after sale service characteristics on electrical appliances to evaluate the customer satisfaction. The study will help the warehouse delivery center manager of the organization to identify the customer's need towards the after sale services characteristics. Home appliance delivery service is a component of business that defines the interaction between delivery person and customer. The importance of delivery service is heavily influenced by customer complaint, satisfaction, repurchase intention and customer perception towards their service offering. This study also investigates the importance of customer satisfaction in purchasing electrical appliances, connection between service quality dimension and after sales service performance.

Currently, AEON home delivery services still have several issues to mitigate the problem with the customer dissatisfaction on the service. AEON still not fully depend on the outsource vendor management especially for delivery to customer as AEON worried will lose the customers if unable to serve customer better with service. Through the careline hotline, customer complaint is most important to AEON to serve better their customers.

In this study, the following will be discussed on the research background, problem statement, research objectives, research questions, significant of the study, chapter layout and finally to conclude the introduction,

1.1 Background of Organization

AEON CO. (M) BHD. is better known as a General Merchandise Stores (GMS) and supermarket chain in Malaysia, being the country's strong retailer with total revenue of RM 7.34 billion for the financial year 2018, with retailing business contributed RM 8.43 billion and property management services contributed RM781.3 million. AEON CO. (M) BHD have the prestige as the main leading hypermarket/ mall within its target segment customers. AEON Malaysia is a strong regional retailer in Malaysia. AEON has own supermarkets and hypermarkets across the country and expanding growth gradually. AEON Malaysia established in 1984 and response to the Malaysian Government's invitation to help modernize the country's retailing industry, AEON's has many stores across peninsular Malaysia in order to satisfy the ever changing needs and desires of consumers. In year 2014 marks an important growth for AEON CO. (M) BHD. with 30 years of excellence to boast, staying relevant and become No.1 leader in the dynamic market.

The management highly committed to improve the business synergy activities by focusing on customer behavior which is the main priority to ensure customer are happy with the merchandise, service and reliability of after sales service and build customer loyalty to ensure they always shop at AEON shopping centre. To ensure customer are always upgrade their living style, AEON also introduced desired living concept by selling latest technology home living product to enhance customer live in comfortably and stay healthy.

For electrical sales division, AEON setup a distribution warehouse in year 2014 to support after sales service of large home appliance delivery to customer. AEON electrical distribution centre located in Petaling Jaya (Sankyu Sdn bhd) for storage purpose and delivery to customer. This strategic location is to cater Klang Valley area customer by deliver the goods and outstation delivery area is through our stock point warehouse in several outstation location. AEON responsibility to ensure customer delivery order is deliver on time, respond to customer complaint with better solution and communicate with supplier on the defect merchandise

which is rejected by customer due malfunction or damaged. Nowadays, looking into current trend, customers are very focus on the product features, availability, quality of the product, and worth for the price of the product.

1.2 Background of the Research

In this research study, customer satisfaction and service quality has been a focus of interest to researchers and organizations and it has been proven by some researchers that service quality is related to customer satisfaction. Thus, it becomes a reason for this study to find out about AEON delivery centre efforts in ensuring the organization to become a customer center organization. As a result, the organization has been studying the factor of after sales services and developing strategic to satisfy customer's expectation. Therefore, its important to understand about the retailing concept on after sales services, service quality and customer satisfaction as per below explanation before further analyze the 5 key factor which is influence the after sales service quality and customer satisfaction.

1.2.1 Retailing and after sales services

In business context, retailing is about selling goods or services to end customers and generates profits. According to Kotler (2008), the distribution of good or service to reach final customer is through any organization called as retailer, wholesaler or manufacturer as a intermediaries to connect with customer. Peterson and Balasubramaniam (2002) specified the role of retailing as to work as 'the middle person between the firm and customer to control the increasing value of the retailing firm activities' in the author books on "Retailing in the 21st century". Therefore, AEON play an important role to serve their customer by maintaining a good relationship with the customers. Kotler (2008), agreed with other researcher that after sales service is necessary significant in the relationship between customers and sellers in retailing. After sale service is the connecting between the seller and the customer during the post purchase life transaction. During the product is sold to the customer, the warranty and delivery service is mutually agreed by both parties.

1.2.2 After sales services and customer satisfaction

Bitner et. al. (1990) mentioned that many researchers know that after sales services has been directly connected to customer satisfaction. Kurata et.al. (2009) decided that after sales service will create a maintainable relationship with customer in the primary stages of product lifecycle such as product functionality and over the time customer satisfaction will improve.

Zeithaml et. al. (1996) consider that customer satisfaction is very important element to show how firms are devoted to provide quality product or services to their customers that in the long run will increase customer loyalty. Kotler (2010) mentioned customer satisfaction 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 sale services. Anderson and Sullivan (1993) proved that increase in demand of merchandise / service will also benefit the organization. Organization will make effective planning for selling product effectively, therefore the services after sale, become a part of customer relationship management.

Recent finding indicate that satisfaction has no influence on repurchase as per mentioned by Agustin and Singh (2005). According to Gronroos (2001), customer expectation is actually prefer to receive on time delivery, good condition of product when delivered, warranty and installation rather than to experience or face problem regarding late delivery, defect merchandise, or waiting for the availability of stock confirmation before receive goods. On the other hand, there is number of dealer of vendor such as Samsung, Panasonic, Toshiba, Pensonic, Haier, Sharp provides a lot of customer service such as call centre, online support service, spare part availability, quick repairing, on time repairing period. Among the supplier, AEON gives priority to deliver the quality after sales services to their customers. Most customer experience delay in the repairing, delay in delivery, low accountability of technician responded for the reported case, (source from www.aeonretail.com.my). Therefore, AEON ensure all customer complaint regarding the product need quick solution from respective supplier.

1.2.3 After sales services and service quality

According to Gronroos, (2001) and Parasuraman (1994), service quality has been theorized as the dissimilarity between customer expectation of a service to be received and perceptions of actual service received. In recent years, customers expect high quality after sales service from the organization as its will leads to long-term relationships reflected to the customer's, as a result current customers will recommend the service to others. Zeithaml et.al. (1988) specified five important dimensions that affect customer's evaluations of the quality of a service provider: which is reliability, assurance, responsiveness, empathy, and tangibility. Customer satisfaction is in the interest of the service provider as well as the interest of customers. Germano et al (1992) cited that many executives companies realize that as long as better service leads to improves gains.

In this study, it's important to use the 5 key factor of after sales service quality to measure the performance with customer satisfaction in retail industry context. For the delivery service centre operation, the 5 key dimensions of service quality is directly involve on delivery service, installation, and product quality, which need to satisfy customer needs. Therefore, below is the explanation of the key area concern to identify the challenges and to create a solution of better service to avoid customer dissatisfaction.

Reliability – is a important duty to perform the promised service consistently and accurately. AEON provides precise service to customers without making any mistakes and has been promised upon agreed. Example, will delivered the correct goods to customer as per agreed during the purchase of electrical appliance. In this case, AEON most common issue is late delivery where AEON not keeps its promise to on time delivery as many customers will complaint to store salesperson on the delivery issue. Other issue customer unhappy when received defect merchandise upon delivered. Customer looking for AEON because they find the services is reliable.

Assurance - The courtesy and product knowledge of employees is the ability to build trust and confidence with the customer. It also explains that the AEON staff is always polite and has the necessary knowledge to respond to customers' questions. In some cases, staff unable to quickly respond to customer on the solution as sometimes they not had seen the issue seriously while customer waiting for the feedback from the management. Customer may feel confident if the management staff taking the issue more seriously and respond to customer on time to solve the issue.

Tangibles – is related to the physical facilities, equipment, personnel and communication materials. This factor refers to the appeal of merchandise display, equipment and material information used by the department store as well as and ensure departmental staff look very professional and have pleasant politeness. For a example, customer may feel confident when the large appliance is display in detail information before taking into consideration on the condition of the goods and the staff should ready to serve customer or express to share their knowledge on the certain electrical item when looked for assistance from the sales person.

Empathy– is to provide personal attention to customers. This means that the frontline staff performs in their best interests to pay attention on customers' needs and provide personal attention when customer looking for a solution. In this case, if staff failed to understand their problem and did not feedback in less than 3 days, the customer will may ask for refund and the complaint will involve cost and time of all related parties including the vendor of service centre.

Responsiveness – the staff to provide prompt service for every customer. This means that AEON staff is willing to help customers and respond to their requests a well as to inform customers when service will be provided, and then give prompt service. There will be an issue if the staff did not collect information from customer regarding the customer request or needs. The problem will be an issue if the staff late feedback to customer or wrongly interpret the customer actual

problem. The problem will create tension or conflict between the salesperson and customer. If the problem still persists, customer will refer to top management to solve the matter more seriously. In this case, there is normal issue become serious case if at first did not feedback to customer on proper explanation or listen what actually make the customer dissatisfied with service.

Overall, the manager should understand the difference between the satisfaction level and dissatisfaction perceived by the customer. This research study will help bridge the gap of previous researches and provide relevant suggestion to the service providers in prioritizing their objectives. This study will help them focus on improving their service to retain the satisfied customer and to maximize the delivery of the perceived quality of the service.

1.3 Problem Statement

In a modest market place, understanding customer's needs become an important factor to the retailer. Based on the research, the problem statement is formulated as follows: To increase better understanding of delivery service in AEON electrical appliance which affect customer satisfaction in the case of after sales service. This is because the delivery services are heavily involving customer complaint, satisfaction, repurchase intention and different customer perception towards their service offering.

Poor delivery service is lead to customer dissatisfaction as their main concern is received late delivery, product condition after delivery, warranty and quality of the product doesn't meet their expectation. The following page will explain the issues faced by AEON Electrical Appliances Delivery Centre Department received through complaint from the customers and the challenges faced in order to retain customer satisfaction with proper solution benefit the customers.

Table 1 Customer dissatisfaction with electrical goods

NO	MAIN PROBLEM	PRODUCT TYPE				2018	2017
		AUDIO VISUAL (TV)	WASHER	FRIDGE	AIRCOND		
1	PRODUCT FAULTY	5	10	12	5	32	21
2	REPAIR BY TECHNICIAN	7	6	8	2	23	14
3	DELIVERY NEGLIGENCE BY DRIVER	6	7	6	2	21	12
4	LATE DELIVERY	4	6	8	1	19	10
5	REPLACEMENT UNIT	1	2	3	0	6	2
6	REFUNDABLE	1	4	2	0	7	2
	TOTAL COMPLAINTS	24	35	39	10	108	61

Sources: "AEON ELECTRICAL DISTRIBUTION CENTRE PJ/SSDC - DECEMBER'18 PROGRESS REPORT". Adapted from AEON Customer Service Report in www.aeon.com.my)

Based on the table 1, as a result the number of customer complaint increase from 61 to 108 from 2017 to 2018. This result shows that in year 2017, the number of product faulty is 21 and increase to 32 in year 2018. Following the case of technician repair is also increase from 14 to 23 in year 2018. However, the next high complaint is driver delivery negligence slightly increase with the number different of 9 cases (21-12) in year 2018.

Late delivery cases also increase by 9 cases from 10 in year 2017 to 19 cases in year 2018. The other two cases which is replacement unit and refundable is also shows increase in the year 2018 compare to 2017. From the above table show that product faulty, repair service by technician, delivery negligence by driver and late delivery is most problems faced by the customer. In this research study, customer dissatisfaction on the electrical goods through complaints is the key concentration to understand customer needs and provide better solution for each case scenario. From this scenario, it is clear that conflict and tension create between the organization and customer when the service is rendered by the provider is very low and not enough of cooperative to mitigate the problem. After discussion with customers, normally AEON will agree for replacement unit of goods in case the

product found faulty and damaged after communicate with related person in charge through the case finding. Refunds is last option solution rush by the customer if the case is still pending from the warehouse in charge person. Both replacement unit and refunds will take more time to clear to the customer due to internal communication between departmental staff and warehouse manager.

Although AEON has tried to provide best services to the customers, it is proving to be difficult to sustain the customers due to challenges create stiff competition between other competitors in the form of communication quality, service diversity, price, and different preferences of the customers as well as special offers. Therefore, this study seeks for improvement to evaluate the dimensions of service quality on customer satisfaction by ensuring the quality of service is assessed as well as the relationship between service quality and customer satisfaction is shown clearly. According to Murthy et. al (2004) customer dissatisfaction will increase due to poor performance of the purchase item and the quality of the service rendered by the organization. The marketing manager may realize that dissatisfied customers is switching to a competitors or the company will losing new customers due to word of the mouth spread effect. The poor service faced by the customers is more difficult and costly to rectify by the service provider.

Furthermore, Akbar and Parvez (2009) defined customer satisfaction as a feedback to identify the expectation including wants and needs with the purchase and purchase decision itself. In this context, question arises between the core after sales service offered and referring to the overall quality service perception. Therefore this study will lead to enhance knowledge and understanding about the concept and practices of after sales services quality and its influence on customer satisfaction in the purchasing electrical appliance.

1.4 Research Objective(s)

Based on the problem statement, the objective of this study is listed as below:

1.4.1 The General Objective

The primary purpose of this research is to observe whether the impact of after sale service characteristic will affect the customer satisfaction. Essentially the research intends to examine the following specific objectives as an overall study. The case of AEON electrical appliances.

1.4.2 Specific objective

These studies intend to achieve below listed specific objectives derived from general objective stated above:

a) To investigate the delivery reliability in after sales service affects customer satisfaction in purchasing AEON electrical appliances.

b)) To investigate the tangibility in after sales service affects customer satisfaction in purchasing AEON electrical appliances.

c)) To investigate the employees' responsiveness in after sales service affects customer satisfaction in purchasing AEON electrical appliances.

d)) To investigate the employees' assurance in after sales service affects customer satisfaction in purchasing AEON electrical appliances.

e)) To investigate the empathy in after sales service affects customer satisfaction in purchasing AEON electrical appliances.

f)) To investigate the dominant service quality dimension that has a strong relation with customer satisfaction in purchasing AEON electrical appliances.

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In this study, the objective has been discovered in the retail context. More specific, the product category in the electrical appliances require installation services and delivery from the retailers' personnel due customer are not able to fix by himself.

1.5 Research Questions

a) Does the delivery reliability in after sales service affect customer satisfaction in purchasing AEON electrical appliances?

b) Does tangibility in after sales service affect customer satisfaction in purchasing AEON electrical appliances?

c) Does employees' responsiveness in after sales service affect customer satisfaction in purchasing AEON electrical appliances?

d) Does employees' assurance in after sales service affect customer satisfaction in purchasing AEON electrical appliances?

e) Does empathy in after sales service affect customer satisfaction in purchasing AEON electrical appliances?

f) What is the dominant service quality dimension that has a strong relation with customer satisfaction in purchasing AEON electrical appliances?

1.6 Significance of the study

This study examine the impact of after sale service and the relationship with customer satisfaction will contribute to warehouse manager to execute the best interest of customer to know whether customer voices are heard and finding best solution on behalf of customer with the issue of the complaint. Sustaining 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 sale services.

Kotler and Armstrong (2010), also identify that other retailers are failed to achieve the positive outcomes from the impact of after sales services with the customer satisfaction. Organizations have to provide better after sale services to retain and satisfy its customer. Kotler and Armstrong (2010) also mentioned that making and retaining valuable relationship with customer while using every aspect of taking, retaining and enhancing customer is known as customer relationship management.
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From this study, the internal factor of after sales service (reliability, tangibility, responsiveness, assurance and empathy) will able to provide a valuable insight for the managers to better understand the needs of customer expectation towards the quality of the service offered by the organization which delight customers in after sales service quality. External factor such as word of mouth (WOM) and repurchase intention also have impact on after sales service where customers behavior and perception towards organization is been identified.

1.7 Chapter Layout

In this section, the outline of the entire research write ups is briefly described as below:

Chapter 1: Introduction

In this chapter, it presents an introduction to the impact of after sale services toward customer satisfaction. The explicit discussion for the essentiality of this research is presented along with the outlines of research objectives to be achieved in the end of the study, the research question will having answer and the significant of study. Finally, it includes the chapter layout and a short conclusion on this chapter.

Chapter 2: Literature Review

In this chapter, it includes the review of literature from different resources of information and journals articles that are related to the topic. In addition, the review of the relevant theoretical model and proposed theoretical framework to identify the relationship between the independent and dependent variable of the study are presented as well. Last but not least, the in depth explanation about the variables with supported studies from earlier researchers are also inserted.

Chapter 3: Methodology

The specific model and test will be discussed in methodology in terms of research design, data collection, sampling design, research instrument, construct measurement, data processing and method of data analysis.

Chapter 4: Finding

The result generated from SPSS version 23 will be presented and discussed in this chapter to investigate the reliability analysis from various test to explain the means of each result which related to research questions and hypotheses constituted from above chapter. The descriptive analysis, scale measurement and inferential analysis are analyzed in this chapter.

Chapter 5: Recommendation and Conclusion

In this chapter, it will conclude the major finding and implications of this study based on the result obtained from chapter 4. Additionally, limitations that had been discovered during the progress of this study will be listed and recommendations for future researchers will be proposed.

1.8 Conclusion

This chapter provided an insight into the research project. Concise background of the study and problem this research intend to examine is presented to provide an overview for the readers to understand the overall purpose of research. Following chapter will detail down the literature review related to this research paper.

CHAPTER 2   LITERATURE REVIEW

2.0 Introduction

This chapter analyses the influence of after sales services on customer satisfaction. Firstly, this chapter is assigned into two main subtopics, namely theories and concepts of customer satisfaction and variables affecting customer satisfaction from after sales service quality. The research gaps also have been addressed. Next, to clearly illustrate the stated hypotheses, an adopted and proposed theoretical framework is developed.

2.1 Review of the Literature

2.1.1 Theories and Concepts of Customer Satisfaction

Customer satisfaction is generally well-defined as a post purchase experience to evaluate a decision on a specific product or service, Gundersen et.al. (1996). According to Isac and Rusu (2014), these experiences not only lead to evaluation of the degree of satisfaction, it also influences the understanding and attitudes of customer towards a certain product or service. Oliver (1980) also mentioned that the evaluation process determines the result between repurchase intention and the perceptions of product performance. The following part is the critical assessment of several theories related to customer satisfaction which is significant for the development of this research.

a) Disconfirmation theory:

Cardozo (1965) argues that satisfaction is a function of the fulfillment and direction of disconfirmation theory. Oliver (1980) also mentioned that customer expectations are very high on the product after the purchased. Consumers believe that a product has positive desire expectation attributes. Post-purchase and expectation after purchase the product is predicted different satisfaction. In this case, if the product performs better than expected, 'positive disconfirmation' is expected to occur. This leads to consumer satisfaction and supports consumers' beliefs, attitudes and future purchase intentions. If the product performs worse than expected, 'negative disconfirmation' occurs in the consumers' evaluation.

Oliver and Desarbo (1988) argues that if the product performs as expected, the judgment of the consumer will be labeled as 'simple confirmation". In this case, consumers use to reach satisfaction judgments, may differ for durable and non-durable products. In the case of a non-durable product, the traditional expectation and disconfirmation relationship hold good. For a durable product, however, consumer satisfaction judgments were solely convinced by the performance of the product and were totally agreed with their initial expectations.
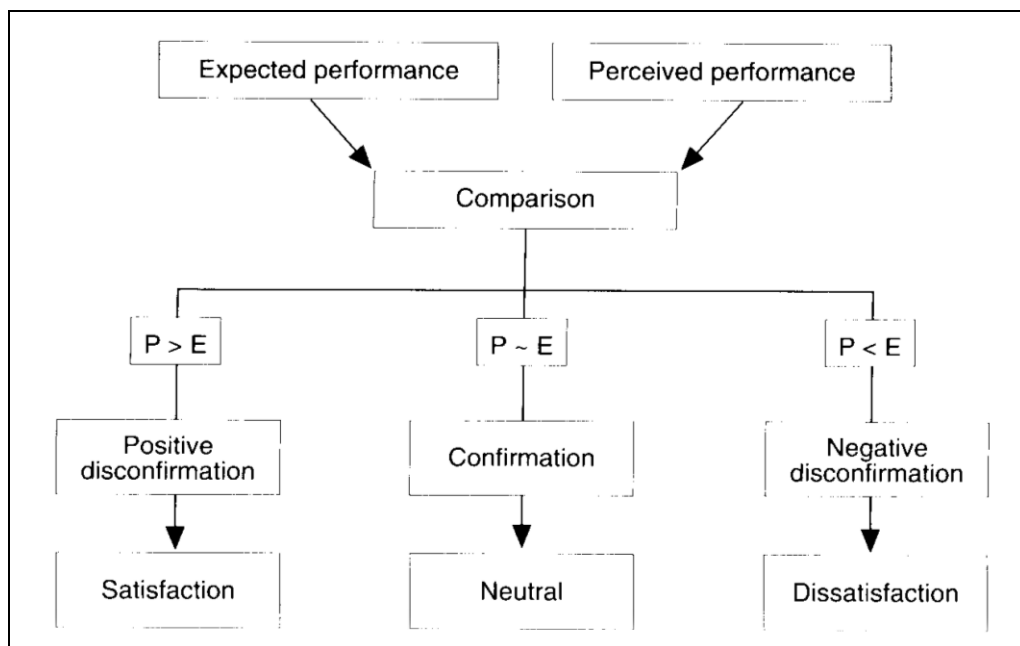
Figure 1 Disconfirmation Theory Model (source, Oliver 1980)

Ekinci et. al. (2004) agreed with Oliver's updated definition on the disconfirmation theory, which states "Satisfaction is the guest's fulfillment response. It's providing a pleasurable level of consumption-related fulfillment, when purchasing a product with the features.

b) Dissonance Theory

Dissonance Theory mentions that a customer will experience cognitive dissonance when a customer received a low quality product and would compare the performance with the expectation of receiving a high quality product, Cardozzo (1965). In other words, customers may make some comparison between their expectation on the product and the product's actual performance. When a customer invested time to explore on finding the product or service and

experienced lower performance than expected, he or she would minimize the discrepancy between the expectations, Cardozzo (1965). The dissonance always appears if there is a discrepancy between the customer's expectations and the product's performance, Isac & Rusu, (2014). Therefore, consumers try to avoid dissonance by lowering their expectations or positively increase their perception on the product or service's performance in the case of experience disconfirmation, Anderson (1973).

Therefore, this theory as per suggested by Olson & Dover (1979) customer can reduce tension or dissatisfaction arises from their experience with the service or product provided by minimize the relative importance of their experience's disconfirmation in order to increase satisfaction level. In this case, the concept of Cognitive dissonance theory is create disconfirmation of expectation, when customers increase their satisfaction level by removing the dissonance experiences after they used or consume a product or service.

c) Assimilation theory:

According to Andreasen (1977), this theory initially studied by Sherif and Hovland (1961) to clarify how consumers report dissatisfactory when there is no proper expectation is not met. Under assimilation theory, consumers' satisfaction judgments will tend to adjust with the original expectations level if the discrepancy between expectations and product performance is not great.

d) Attribution theory:

Krishnan and Valle (1979) also agrees with the explanations of attribution theory by Wallendorf, et. al. (1984) in their works. This theory suggests that people are rational when accepting actions from the contributory inferences. In other words when people are dissatisfied with a product, they try to determine the cause of dissatisfaction and assign responsibility for it. For an example, if the customer found the mistakes from the service provider, consumer will engage in complaint to the seller, and does not agreed if own mistakes. Findings indicate that the more mistakes found, the more customer blame others of not selling good quality product. Folkes (1984) mentioned that consumer who attribute blame to product factors or to the manufacturer or store marketers, tend to engage in seeking

refunds than to take no action.

e) Contrast Theory

According to Danijela et. al. (2015), customer satisfaction can be described by using contrast theory. Contrast theory indicated that the contrast among the expectation and outcome will cause the customer to overstate the difference when actual product or service performance unable to meet the customer's expectations and requirements. In this theory, researcher predicts customer may choose to feedback instead of reducing dissonance. This theory also specified that customers, who receive a product or service less valuable than what they actually expected, will increase the difference between the products received and the product expected, Oliver &DeSarbo (1988).

This theory predicts that product performance which is lower than expectations will be rated under than its actual level. Once customers are dissatisfied with the service of a retailer, the probability to retain potential customers is low, Spreng et. al. (1996). In order to achieve the higher level of customer satisfaction, Oliver (1980) proves that all service encounters offer an opportunity to provide superior service quality and differentiate the firm from its competitors. Oliver (1980) also stated that the poor performance would be rated worse than simply poor; while good performance would be better than a rating of good would suggest.

This condition may reduce the level of customers' satisfaction in long run because customers think that they only can acquire the poor product which was not match with their expectations. On the other hand, the product performance exceeds customer's expectation or satisfaction will be rated higher than its actual rate, Oliver & DeSarbo (1988). This condition may cause the increasing of customer satisfaction's level because customers think that they may obtain a product which able to meet further with their needs and requirements.

Table 2: Theories and Independent Variables Relationship

Independent Variable	Related Theories
Reliability	- In this study, the disconfirmation theory is applied for the reliability variable. - The disconfirmation theory has positive and negative view. - For an example, based on the negative disconfirmation theory, customer experience the difference on the post purchase evaluation where its create doubt on the quality of product and therefore customer believe the product or service received from the delivery person whether received in good condition or not. - For positive disconfirmation theory is when the expectation is higher than the actual product when the delivery order of the product received in good condition without any defect or mistakes done by the delivery person.
Tangibility	- In this case, both contrast theory and attribution theory are found in this variable. - Contrast theory indicated that the contrast among the expectation and outcome will cause the customer to overstate the difference when actual product or service performance unable to meet the customer's expectations and requirements - This theory predicts that product performance which is lower than expectations will be rated under than its actual level. - From the study, the attribution theory is clearly predicting that customer more engaging complaining behavior when they find the possibility of the root cause of the problem.

	• For an example, customer complaint to service centre or sales person, that the goods received from delivery person is rejected due to the dented or defect issues. • Customer may react dissatisfied with the delivery service person and blame the incident through customer complaint and probably customer tend to seeking refund rather than delay in action taken by the manager. • Customer may feel satisfied if the goods is received in good condition as per expectation. Therefore, tangibility has positive impact in influencing customer expectation.
Responsiveness	• In this study, assimilation theory is clearly explaining the responsiveness relationship between customer satisfaction. • Clearly, the time taken by the salesperson to resolve the problem became a major factor in the outcome of satisfaction/ dissatisfaction evaluations. • Therefore, a strong relationship between customers and salesperson can be generated if the services with higher degree of responsibility are able to enhance the level of customers' satisfaction. • Thus, the variables are considered as the important factors that affecting customers' satisfaction on the purchase of electrical appliance.
Assurance	• In this study, cognitive dissonance theory is clearly explain the assurance relationship between customer satisfaction. • For an example, consumers try to avoid

	dissonance by lowering their expectations or positively increase their perception on the product or service's performance in the case of experience disconfirmation. • In this case, the managers or the sales person should focus on engaging customers in a meaningful way, ask them what their problems and expectations are, and go at the problem as a team rather than working against the customer to solve their issue. • Most researchers agree that assurance is positive impact to encourage customers feel satisfied with the service rendered by the organizational staff.
Empathy	• For an example, if salesperson lack of empathy or an inability to understand the other's perspective damages any service encounter and results in customer dissatisfaction. • From a cognitive dissonance perspective, empathy is the service employee's potential to take the customer's view through understanding their mind, thoughts, • Therefore, the result shows a positive relationship between empathy and customer satisfaction.

2.2 Relationship between after sales service quality and customer satisfaction

From customers' point of view, after-sales service is viewed as an important factor that has an impact on establishing good relationships with customers. On the other hand, after-sales service also plays an important role in attracting more customer attention in a market with severe brand competition, Chien, (2005).After sales service is one the main determinants of customer satisfaction and providing quality services is one of the main targets of businesses, therefore, making it of great concern. The first service quality measurement model was developed by Parasuraman et. al. (1988). It was introduced by the name of service quality (SERVQUAL). In recent study, Parasuraman et.al. (1988) identified 5 factors that potentially impact the after sales service is reliability, assurance, responsiveness, empathy, and tangibles. Customer satisfaction is in the interest of the service provider as well as the interest of customers.

The SERVQUAL scale which is also known as the gap model by Parasuraman, et. al. (1988) has been proven to be one of the best ways to measure the quality of services provided to customers. This service evaluation method has been proven consistent and reliable by some authors, Brown et. al. (1993). Therefore, in this research, the after service quality dimension is clearly proven to measure the customer satisfaction in order to meet customer expectation towards the 5 key element of independent variables. Although the customer satisfaction is influence by the after sales service, the following individual independent variables is clearly explained in next page whether it has strong relationship between customer satisfactions or doesn't have any relevant with the dependent variables.

2.3 Relationship between reliability and customer satisfaction

In the business context, reliability is the service will be delivered as per standards policy and promised by the service provider to the potential customer after the purchased of electrical appliance mentioned by Siddiqi (2011). In other words, it signifies the customer getting what they feel they have paid for. Based on the findings, there is a positive relationship between reliability and customer satisfaction in purchasing electrical appliances. Customers are confident that reliability is most main factor which influences customer expectation towards after sales service. To evaluate the customer satisfaction, customers are actually looking for the promises made by the departmental staff at store to keep promises for the delivery of the product and installation.

In this case, personal communication and interaction with the salesperson is important to build a relationship that benefits both the salesperson and the consumer, as they may increase consumers" felt involvement with the product and the conscious buying decision. The contribution of salesperson in customer decision making is part of the process in order to convince customer to make a purchasing for electrical appliance.

To deliver customer expectation on the after sales service, customer may react to dissatisfaction if the delivery service is very poor than the expectation, which will lead to customer complaint behavior. Based on the negative disconfirmation theory, customer experience the difference on the post purchase evaluation where its create doubt on the quality of product and therefore customer believe the product or service received from the delivery person whether the goods received in good condition or not based on the observation. Generally, customer may respond differently to the salesperson if the sales person or the manager is very consistent in solving the issue. Customer may feel satisfied when the expectation is higher than the actual product when the delivery order of the product received in good condition without any defect or mistakes done by the delivery person.

If the retailer wants to improve his service offering, he must ensure the zero defects by implementing better systems, better recruiting procedures, better training of staff, improved internal marketing, better interaction from customers in the service delivery process, better premises and a better relationship between the front-line staff and the support staff, Primio, (1988).

According to Turley (1990), perception of quality risk is defined as when customer believes the product or service may not meet a customer minimum expectation. Thus, to reduce customer's perceptions of quality risk by concentrating on the offering/supply of products of excellent quality and through an excellent service offering. Therefore, managers of the organizations need to make efforts to understanding how customers from different cultures remark the quality of the service, and how this is turned into consumer satisfaction and behavior intentions.

Therefore, in this study, it is hypothesized that reliability has a positive impact on customers' satisfaction on the use of after sales service. This is because reliability are seen an important factor contribute in fulfilling customers' satisfaction on the purchase of electrical appliances.

2.4 Relationship between tangibility and customer satisfaction

In this study, tangibles give clue to the buyer observe about the quality of a product such as style, hardness, color, label, before purchase a product. Normally if high price display in a service or product, it gives an idea about the quality of service or a product before involve decision to purchase. The tangibles of service can be the physical facilities of service provider, equipments available for, and the service providing staff mentioned by Zeithmal et. al. (1981). Services are not an object to touch or feel but they are performance. It is very hard to set the explicit standards on services. Home appliances are generally evaluated in store through a comparison of product characteristics on the spot where appliances can be viewed. Bahia & Nantel (2000) mentioned that the prediction may include functional,

financial, durability, status and appealing factors individual expectation.

Based on the past purchase experience, customer may encounters problem with delivery service due to lack of confident on the delivery person to deliver the goods in good condition without any defect with the proper handling equipment used to move the goods at the designated location confirmed by customer. If the physical facility doesn't fit to deliver the goods, it may hard to meet customer expectation to confirm receive the goods with high satisfaction. In other hand, customer may react dissatisfied with the delivery service person and blame the incident through customer complaint and probably customer tend to seeking refund rather than delay in action taken by the manager.

From the study, the attribution theory is clearly predict that customer more engaging complaining behavior when they find the possibility of the root cause of the problem involve others factor such as the product quality or notice the defect of the goods happen during the receiving the goods and blame the delivery person is responsible for the such incident. Therefore, customers seeking for refund or replacement unit of the goods from the delivery centre or store staff to solve the problem.

2.5 Relationship between responsiveness and customer satisfaction

According to Beatty and Buttle (2004), the purchase of major electrical appliances create amount of confusion and tension in the short and long run for the inexperienced or insufficiently informed consumers due to the impact of technical problem with the product faulty. In other word, customer only satisfied when brings the problem to the assistance of the salesperson in the store for further action. Therefore, the salesperson should collect information about the customer's needs and interests, in order before explain to customer on the solution. This includes handling the customer's queries and complaints and representing the customer's needs and interests to the company, will ensure the customer's satisfaction with the product purchased is increased. Availability of enough salespeople to respond to customers" needs even at busy times to guide customers

when choosing expensive appliances is more important when customer making purchase decision.

Therefore personal interaction with salesperson in the store may motivate them to attend to and comprehend the information the salesperson shares about the product. Malhotra (2012) mentioned that a positive attitude of a salesperson and his concern about the satisfaction of the customer may increase a consumer's satisfaction without any fault issue .According to Langevin (1988), from the customers point of view, the greatest concerns in terms of delivery service are with quality on the accuracy level, timeliness (i.e. processing deadlines), on time delivery and responsiveness (e.g. attitude and face-to-face customer relationships).

Clearly, the time taken by the salesperson to resolve the problem became a major factor in the outcome of satisfaction/ dissatisfaction evaluations. In addition to delays in delivery time and seeking refund is another major problem how consumers felt when they were treated by the retailer. In dealing with complaints, the organizations must study not only the costs of the remedy, but also the cost of not solving the complaint. These involving costs and managers must be aware that their business might be potential lost repeat business due to negative word of mouth from dissatisfied customers.

In this study, the best way to show responsiveness is by quick and courteous handling of dissatisfactions. The more quickly a complaint is resolved, the greater the chance of satisfaction is found in this study. Based on previous studies, there are some researchers proved responsiveness and customer satisfaction have negative relationship with customer satisfaction. Majority of the researchers also found that responsiveness has positive relationship with customer satisfaction. Therefore, it is expected that responsiveness is positively related with customer satisfaction.

2.6 Relationship between assurance and customer satisfaction

Assurance originates from such things as employees proving their knowledge and competence, being polite and friendly, and offering guarantees of satisfaction. The significance of frontline employees as boundary spanners between the company and its customers is often recognised in the literature Gothan et. al. (2003). The salespersons capacity as consumer facilitator, culminating in his/her skills and knowledge, may be considered invaluable to inexperienced customers in the transformation process, especially in terms of the prevention of cognitive dissonance and the reduction of risk perception mentioned by Sarin et. al. (2003).

Interpersonal customer expectations reflect the relationship between the customer and the product or service provider. For an example, support expectations include interpersonal sharing of technical knowledge, ability to solve a problem, ability to communicate, reduced time to problem resolution, courtesy, patience, enthusiasm, helpfulness, assurance that they understood my problem and my situation, communication skills, and customer perceptions regarding professionalism of conduct, often including image and appearance. Therefore, the managers or the sales person should focus on engaging customers in a meaningful way, ask them what their problems and expectations are, and go at the problem as a team rather than working against the customer to solve their issue. It is noted that, most of the researcher agree that assurance is positive impact to encourage customers feel satisfied with the service rendered by the organizational staff.

2.7 Relationship between empathy and customer satisfaction

Empathy is shown by how approachable employees are, talking to customers in language they can understand, and making an effort to understand the needs of the customer. According to Anderson (1991), through his sales personnel, must first thoroughly understand the customer and his/her needs and then apply this to understanding and serving the customer. Bendall et. al. (2004) suggests that complaints must be heard positively and with understanding, be met with fair and appropriate action, reported easily and resolved with speed.

According to Abbasi et. al. (2015), lack of empathy or an inability to understand the other's perspective damages any service encounter and results in customer dissatisfaction. Daniel (2014) mentioned that empathy is the service employee's potential to take the customer's view through understanding their mind, thoughts, and intentions from cognitive perspectives. For better after sales service quality, it is crucial for employees to recognize and deal with customer needs. According to Jones and Shandiz (2015), employee ability to understand customer emotions, sense their expectations, and react accordingly affect the improvement and coordination of appropriate interactive behaviors upon which customers value such developments and increase overall satisfaction.

In addition, the empathic behavior of employees increases satisfaction and develops a long-lasting relationship with the service brand. According to Anderson (2005) found that the result shows a positive relationship between empathy and customer satisfaction.

2.8 Finding the Gaps

Service quality is an important factor in the determination of the level of customer satisfaction in organizations, since it is through service quality that an organization can meet customer needs. However, though many researchers have made efforts to research about service quality, little has been done on the dimensions of service quality on customer satisfaction and hence the gap the researcher is seeking to fill.

2.8.1 Gap 1: Customer Expectation vs. Management Perception Gap

According to Kumar et. al. (2009) service providers may perhaps not realize what features a service must have in order to meet the needs of a customer and to what extent the overall performance on those functions are required to deliver high service quality. Gap 1 is developed whenever the management does not know exactly what their customers want. Sometimes business professionals may fail to understand just what customers anticipate in a service and which functions are required to deliver high-quality service. Numerous businesses conduct pilot studies to figure out just what their market wishes, but later on become internally-focused, oblivion to the fact that customers' need could have changed over time.

For an example, the sales person or the department manager fail to understand the preference of customer needs when customer looking for different type of features, high quality and functionality of the merchandise. In addition, the manager should aware on customer trend, customer behavior and develop strategic to satisfy customer expectation.

If customer expectation is not met, customer may walk away and switch to the competitor where they find the better service option to fulfill their expectation. Therefore, AEON management have different perception gap about customers needs and preference.

2.8.2 Gap 2: Management Perception versus Service Quality Specifications

Whenever the management understand just what their customers want, but are not in a position or are not ready to develop systems which would deliver it, this results in a Gap 2 situation. Kumar et. al. (2009) also mentioned that a number of reasons have been specified for this gap, for instance inadequate commitment to quality of service, shortage of perception of feasibility, inadequate task standardizations and the lacking of goal-setting. This gap arises as soon as the business identifies the desires of the customers, but without the means to deliver the expectations. For an example, customer complaint when the product quality did not meet customer expectation when suddenly the product system breakdown or malfunction for the past 2 weeks after received the goods. Customers sometimes may feel dissatisfied if the product found defect or faulty and need to follow up for the repair case which is hassle and cost time for customer to fix the problem. In this case, the management will accept the rejected set from customer and sent to technician to check the condition of the electrical item such as washing machine, fridge and TV. However, this type of issue will not resolve due to some spare part is need longer time to replace with the dented set. AEON will proceed to replace the new set to customer once confirm the set is faulty. For AEON, this will incur the cost and time issue in order to solve the problem.

2.8.3 Gap 3: Provider Quality Specs versus Service Delivery

Under service quality specifications, service delivery gap proposes that organizations could have manuals for doing service well and dealing with customers properly, but these do not necessarily mean that the best overall performance is assured. Employees perform a crucial part in assuring great service quality perception and their overall performance cannot be standardized. This impacts the delivery of service which has an effect on the way customers perceive service quality. A Gap 3 situation is often referred to as 'the service-performance gap'. It happens whenever the management understands just what needs to be delivered and proper specifications have been developed, but it is the employees who are not in a position or perhaps not ready to deliver the service. A Gap 3 situation, therefore, results from the interaction of the employees and customers,

said by Kumar et. al. (2009). In this case, there is a gap of service delivery with product availability at store when customer feel dissatisfied when the staff inform customer there is no availability of stock to be delivered in next delivery for certain product chosen by customer. For an instance, customer may feel bad experience when on the delivery schedule of the product is currently no delivery by next week due to the particular product need to be arrived from shipping factories.

2.8.4 Gap 4: Service Delivery – External Communications Gap

External communications impacts not just the expectations of consumers, but also, the perceptions of the consumers from the delivered service. Organizations can neglect to advise customers of unique efforts to guarantee quality that are perhaps not noticeable to them and this could affect service quality perceptions by customers (Kumar et al, 2009). For an example, in this situation where customer may feel dissatisfied if the sales person could not arrange the delivery as per request or follow up with customer till the delivery is received by customer.

2.8.5 Gap 5: Expected Service – Perceived Service Gap

From their research, it revealed that one of the keys to making sure great service quality is achieved or exceeded relies on how customers perceive the general performance in the context of what they expected, Kumar et. al. (2009). In AEON electrical appliances department, there is gap communication between sales person and inexperience customer where sometimes customer buy expensive electrical items without knowing about the product functionality from the salesperson before choose to pay for the product. The sales person must show effort to share the knowledge with customer during the decision making. Therefore, customer may belief to the service rendered by the salesperson with more comfortable and confident. In this situation, customer will expect high quality service from the salesperson, before proceed to purchase the electrical appliances.

2.9. Theoretical models for measuring   After Sales Service Quality

Generally, many models have been theorized as being measures of after sales service quality, being either attitude-based measures or disconfirmation models. It is extremely important to measure the quality of after sales service quality because it enables evaluations before and after modifications, identifies quality associated issues, and assists in developing clear standards for service delivery.

Hence, in this research the SERVQUAL model adopted from Parusuraman (1985) provide (5 key dimension area) to analyze and determine quality related challenges or issues within AEON Electrical service delivery and how such quality problems impact on the levels of customer satisfaction. Another model called as the service performance (SERVPERF) model developed by Cronin and Taylor (1994) which is not used in this research. This model is great to determine service quality but does perhaps not provide information on just how customers will prefer service to be in order for service firms to make improvements. SERQUAL studies the gap between users expectation and user's perception about the service.

While, SERVPERF studies only the perception of users about the service from their review. In other words, SERQUAL does not study the service quality, SERVPERF analysis on the service quality. Therefore, the target of the research use SERQUAL model to measure the after sales service quality between customer satisfaction which involve many issues such as customer complaint, delivery service performance, departmental service attitude, product quality, and other relevant factor pertaining on the same issue regarding the service level and contribute for problem solving. Next, the review of past theoretical model in next page will determine the evidence of few researchers on the sales after service between the customer satisfactions which clearly support on this research finding.

2.10 Review of Relevant Theoretical Models
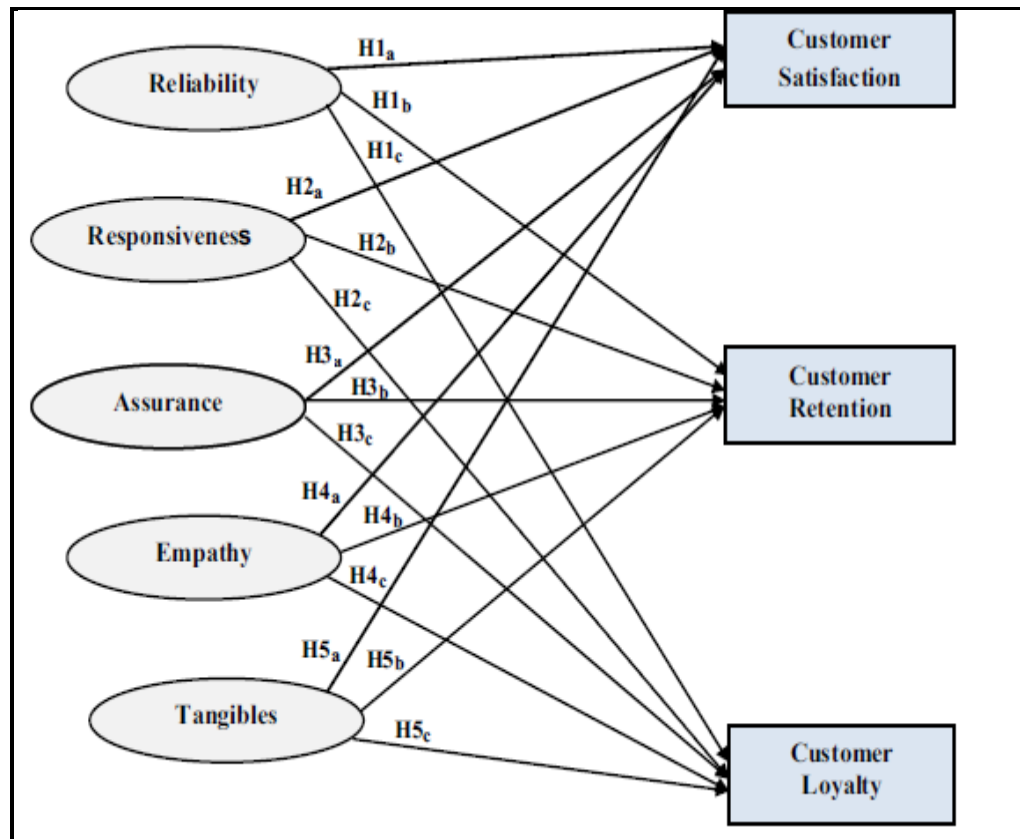
Figure 2 Theoretical Model on After Sales Service Quality between Customer Satisfaction, Customer Retention and Customer Loyalty

Sources: Adapted from Muralidharan et. al. (2016). Modeling and Investigating the relationship of after sales service quality with customer satisfaction, retention and loyalty – A case study of home appliances business. *Journal of Retailing and Consumer Services.*

The purpose of this empirical study is to evaluate the after sales service quality by measuring the level of customer satisfaction (CS), customer retention (CR) and customer loyalty (CL) through the SERVQUAL dimensions. For this purpose research models were proposed to examine the influence of after sales service attributes on CS, CR and CL for three different products such as Gas Stove, Water Purifier and Mixer Grinder from the home appliance involving the manufacturing firm. The results of the study revealed that SERVQUAL-based after sales service attributes are positively correlated with customer satisfaction and the reliability

dimension plays the role of mediator in the effects of after sales services.
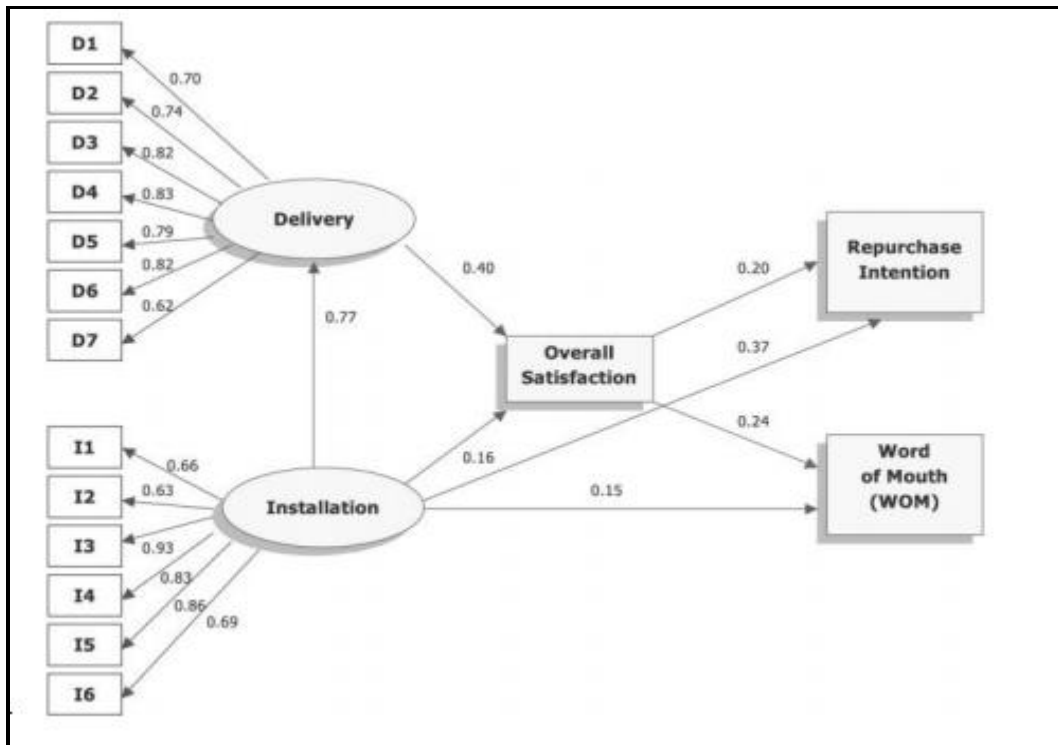
Figure 3 Theoretical Model on After Sales between Customer Satisfaction
Sources: Adapted from Rigopoulou et. al. (2008). After-sales service quality as an
antecedent of customer satisfaction. The case of electronic appliances.

The empirical study show that Rigopoulou et. al. (2008) proved in their study that
customer behavior intention namely (repurchase intention) and (Word of Mouth)
is extension set model supported with the SERQUAL model by Parasuraman (5
key dimension) with other service quality element. SERQUAL is commonly used
to measure service quality. Therefore, based on the results which clearly indicate
the importance of achieving high levels of perceived quality of after-sales
services, since it contributes to both satisfaction and behavioral intentions.

2.11 Proposed Conceptual Framework

Figure 4 Conceptual frameworks representing the relationship between the dimensions of after sales service quality and customer satisfaction.
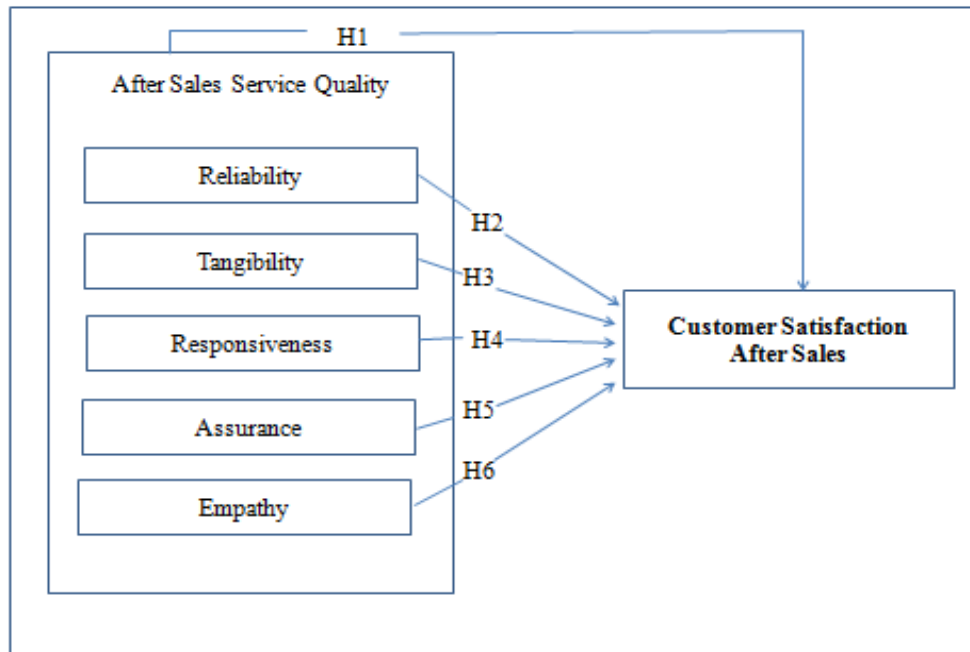
Source: Develop for the research

In this study, the hypotheses of conceptual model framework as shown in Figure are:

H1: There is a significant positive relationship between after sales quality and customer satisfaction.

H2: There is a significant positive relationship between reliability component and customer satisfaction.

H3: There is a significant positive relationship between tangibility component and customer satisfaction.

H4: There is a significant positive relationship between responsiveness component and customer satisfaction.

H5: There is a significant positive relationship between assurance component and customer satisfaction.

H6: There is a significant positive relationship between empathy component and customer satisfaction.

Based on the research in Figure 2 there is several theory affect the customer satisfaction and the relationship between after sales service quality dimension in this study. According to Oliver and Desarbo (1988), mentioned that disconfirmation theory is the best predictor for customer satisfaction. If negative disconfirmation is exist, its induce the negative perception on the customer purchase decision which will make them to consider whether satisfied with the service offering or shift their needs to another organization who will fulfill their needs. Based on expectations disconfirmation theory in services settings, customer develops satisfaction as a response to his/her confidence that the expectations toward the service are met during interactions with the service. Furthermore, customer unlikely will make an assumption based on past experience during encounter with store personnel staff or managers. Thus, each independent variable is highly important to ensure customer satisfactions are met.

Figure 4 above shows the proposed conceptual framework that developed based on equity theory and this framework acts as a foundation for the research project. This figure clearly explains the impact the impact of after sales services quality on customer satisfaction. The five independent variables are reliability, responsiveness, tangibility, assurance and empathy which define the relationship of after sales service between customer satisfactions. It is proposed that customers' satisfaction as dependent variables which is positively related with the stated independent factors. Therefore, this framework has been developed based on the entire research objective and research question in this study. This conceptual framework is developed to identify the independent and dependent variables and to show their relationships to one another. In the following section, it will be discussed on the hypothesis development in this study.

2.12 Hypotheses Development

After sales service is an evolving concept which is comprised with timely delivery, installation of the product, issue of warranty, service quality, feedback, customer satisfaction and customer relationship management. The after sales service quality is important as the organization provides delivery services and this service creates influences the responsibility for the seller and a satisfaction for buyers on the durability of the product. Despite these issues, customer satisfaction remains a major worriedness for the organization as its depends on customer feedback and accordingly, included sales improvement and productivity of the organization, Choudhary et. al. (2011). In the absence of after sales service quality creates problems in terms of condition of products and the issue of customer feedback plays a significant role in this regard. Therefore, the 5 key factor of after sales service is have strong influence towards customer expectation and relevant to be discussed the impact on purchasing electrical appliance in broad context.

H1: There is a significant positive relationship between after sales quality and customer satisfaction.

According to Ojo (2010), reliability indicates the capabilities of an organization to fulfill promised services accurately and trustworthy. Ojo (2010) also mentioned the service personnel's ability to deliver the service in a dependable and accurate manner. Garvin et. al. (1988) also mentioned the importance of reliability in providing quality service. In this study case, the after sales service attributes, namely stability of service quality, choice and range of service, provision of needed spare parts and provision of service as promised represent the capabilities of the organizations to fulfill promised services accurately and dependably, and are grouped under the dimension 'reliability'.

H2: There is a significant positive relationship between reliability component and customer satisfaction.

Ojo (2010) define the name 'tangibles' represent all the tangible things or physical facilities including personnel, equipment, building and renovation, etc. Berry et.al. (1986) also mentioned many studies examined the impact of physical surroundings and appearance on the consumer's assessment of quality. In this

case, the after sales service attributes, namely provision of service tools/ equipments, accessibility of service centre, complaint registration facilities, quality and availability of technical manuals/ service documents and availability of information and advice at service centre, constitute the service dimension 'tangibles'. The accessibility of service tool or equipments instills confidence among customers with regard to ensure of quality service, the accessibility of service centre and the availability of appropriate registration facilities enhance the assurance level of proper attention that a customer will receive.

H3: There is a significant positive relationship between tangibility component and customer satisfaction.

The employees 'responsiveness' describes the desire and willingness to assist customers and deliver prompt service. Zeithaml et. al. (1988) stated that the employees ready to answer customer such as telling the customer the exact time taken within the schedule and how the services will be performed, promptness of service, willingness to be of assistance, and never too busy to respond to customer requests which is contain in responsiveness dimension. In this study, the after sales service attributes grouped under the dimension 'responsiveness' include the following: warranty policy, responsiveness to customer complaints, time taken for resolving the complaint and servicing cost. Customers always expect good and positive response from service personnel as well as quick services and in this regard, the attributes 'responsiveness to customer complaints 'and 'time taken for resolving the complaints' do contribute to customer satisfaction. Therefore, we believe that employees "responsiveness" has a positive impact on customer satisfaction.

H4: There is a significant positive relationship between responsiveness component and customer satisfaction.

According to Zeithaml et.al. (1988), verified that knowledgeable and polite employees who inspire confidence and gained trust from their customers are actually perform "assurance" to respond quickly for the solution. In this study, the dimension of 'assurance' comprises of after sales service attributes such as handling of customers, professionalism of service people, technical competence of service people and interpersonal of service people to have similarity in assurance. The "after sales service" depends mostly on managers as they are the direct contact with the customers.

H5: There is a significant positive relationship between assurance component and customer satisfaction.

Empathy is the individual attention the every organization provides its customers. Parasuraman (1991) also mentioned that individual attention and convenient operating hours were the two primary elements when evaluate empathy in organization. In this study, the service dimension 'empathy' ensures the following after sales service attributes such as accessibility of service people, easiness to contact service people and understanding the needs of customers. Easy accessibility of service people and the ease with which the customers can access the service people gives better satisfaction to customers. Hence, the following hypothesis is proposed.

H6: There is a significant positive relationship between empathy component and customer satisfaction.

2.13 Summary of empirical studies on After Sales Service

Table 3 Summary of Past Empirical studies on after sales service

Table : Summary of empirical studies on after sales service			
Authors	Study	Survey instruments and data collection	Main Finding
S. Murali , S.Pugazhendhi , C.Muralidharan (2016)	Modelling and Investigating the relationship of after sales service quality with customer satisfaction , retention and loyalty – A case study of home appliances business.	- 5 dimensions: Tangibles, Reliability, Responsiveness, Assurance and Empathy 20 question items, 5-point Likert scale from "strongly disagree" to "strongly agree" Sample size: 2800 customer respondent	Finding the level of influence of after sales services attributes for the different product characteristic to meet customer expectation.
Irini D. Rigopoulou, Ioannis E. Chaniotakis, Constantine Lymperopoulos, George I. Siomkos (2008)	After-sales service quality as an antecedent of customer satisfaction: The case of electrical appliances	Accessing on installation and delivery service quality. 16 question Five-point scales anchored "completely dissatisfied" and "fully satisfied" or Sample size :420 usable responses	After-sales service quality affect satisfaction, which in turn affects behavioural intentions. Hence, after-sales services affect the overall offering and thus, the quality of the relationship with customers.
Alireza Fazlzadeh, Fatemeh Bagherzadeh, and Pegah Mohamadi (2011)	How after-sales service quality dimensions affect customer satisfaction. A case of home appliances in Iran.	Accessing on installation and delivery service quality. 16 question Five-point scales anchored "completely dissatisfied" and "fully satisfied" or "definitely yes" – "definitely no", respectively. Sample size :302 usable responses	is to investigate the effect of after-sales services on customers' satisfaction as well as on their behavioural intentions, namely "repurchase intention" and "word-of mouth" (WOM).
Zeinab Maghsoudlou, Hormoz Mehrani*, Fereydoon Azma (2014)	The Role of After-Sales Service in Customer Satisfaction: Case Study (Samsung House Appliances)	Sample: 384	The findings showed that between After-Sales Service and Customer Satisfaction, there is significant positive correlation.

Sources: Develop for the research

2.13. 1 Definition of Key Terms

a) After Sale service: after sales services are referred as all activity support the product centric transaction, Rigopoulou, et.al. (2008)

b) Service quality: is an achievement in customer service and reflects at each past experinced. Customer form service expectation from past experiences, and word of mouth, Customer agreed that perceived service with expected may falls in the short run if product the customers are disappointed, Kotler (1997).

c) Customer Satisfaction: is a person's sensation of desire or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations, Kotler (1997).

2.14 Conclusion

In conclusion, Chapter 2 had presented on the evaluation of literature and thus developed a framework for this study. The hypotheses were developed from the theories and literature review. The methodologies used in this study are discussed in the following chapter.

CHAPTER 3 METHODOLOGY

3.0 Introduction

Research methodology describes the research method that was used to further analyze the outcomes of the study. The concentration of this chapter is on the detailed methodology used to collect necessary data in order to test the hypotheses in the previous chapter. Data collections are used to analyze on the quality of research designs − validity and reliability, are presented and discussed. This chapter contains methods of data analysis used, scales of measurements, construct definitions and details, design of the research and sampling method and the data collection method.

In this chapter, the mechanisms about the methods implemented for the study are also discussed. Furthermore, only 315 of survey questionnaires are collected from the respondents. This chapter clearly explains how this research is carried out. The research conducted was based on quantitative methodology. More specifically, a questionnaire was used as a research tool, as more appropriate in examining managerial practices as well as consumer perceptions, attitudes and intentions (Easterby-Smith et al., 1993).

3.1 Research Design

Research design was classified as the foundation in a research work. Research design stands for improvement planning of the methods to be adopted for collecting the relevant data and the techniques to be used in the analysis, keeping in view the objective of the research and the type of approaches that going to be used in the study, time frame to complete the research and cost involved in the research. It is represented that the actual research can only be carried out if there is a proper development of the research design. Therefore, it's important to ensure that the whole progression of carrying out this study in systematic mode and appropriate in order to get reliable result in this study.

3.1.1 Quantitative Research

In this research, quantitative method will be used in identifying the variables that would affect the customer satisfaction towards the after sales services quality from electrical appliance distribution centre. Quantitative research is the collection of data to define the impact between dependent variable and independent variables. Creswell (2003) mentioned that quantitative research can be quantified and visible to statistical treatment in order to facilitate or contradict the information of relationship. In this study, survey as a kind of positive approaches which involve the selection of sampling in an unbiased basis and followed by distribution of questionnaire will be employed in this study as the main concern to identifying the relationship between after sales service quality and customer satisfaction.

3.1.2 Descriptive Research

Additionally, descriptive research is conducted to identify the factor that has implication on customer satisfaction. According to Glass & Hopkins (1984), descriptive research involves collecting data through questionnaire that describe the factors or phases and then organizes, tabulates, depicts, and describes the data collection. Descriptive research can aid the reader to understand the data distribution by using visual aids such as graphs and charts.

3.2 Data Collection Methods

Data Collection is an important aspect in this research study. Inaccurate data collection can influence the results of a study and lead to invalid results. Therefore, it is vital to decide which type of data should be used for the study. In this study, primary data will be used to answer the hypotheses and research questions through questionnaire survey.

3.2.1Primary Data

According to Malhotra (2012), defined primary data are originated from a particular research. Hence, primary data are always the most authoritative because the information has not been filtered or interpreted by any second party, Cooper & Schinder (2013).According to Cooper and Schindler (2013), primary data are first source data directly related to the project at hand. They also further clarify that the primary data or information is raw data without interpretation and these information not available to public. However according to Greener (2008), mentioned that compare with secondary data, the originality of primary data would be higher and accuracy would be ensured if its administered in a appropriate way in the business environment, changes will be occurring from time to time. In this research, primary data that was used to collected through the questionnaire which is completed by the respondents themselves. This method is used to provide correction since the data is original and relevant to the topic, in which all respondents will be responding to the same question. Moreover, this type of primary data is current and it can give better and accurate view to the researcher about the topic under consideration. In a survey, a large and representative sample of an explicitly defined target population is questioned. There are 500 target questionnaires to be received from the respondents, but only 315 respondents respond on the survey. The primary data collected are transformed to statistic by using statistic software in order to generate an overview of the result as a discussion purpose in chapter 4. In this study, to gather and collect 315 respondent take almost 2 month from every respondent (10 June'19- 8 August'19.

Table 4: Survey Return Rate

Respondent	Questionaire Distributed	Questionaire (Valid)	Questionaire (Invalid)	Total Questionaire validated and Collected (% of respond rate)
AEON Customers	500	315	185	63%

3.2.2 Secondary Data

According Zeithaml et. al. (2002), secondary data are the data that have been collected for multiple factor by a third pary other than the problem on hand. The secondary sources varies in terms of data available from within or externally from other source available through case studies, online search engines, previous research and library records. External data such as journals, e-journals, articles, magazine, books or internet can be used to acquire more information. Secondary data are also inexpensive as its could be obtained with ease in contrast to the primary data.

The search engine such as websites, Googles, and internet are wide recommended due to its effectiveness in obtaining wide range of information from various group of research who are sharing the knowledge relating to the their expertise.

Secondary data help researcher to develop and indentify an approach to a problem by formulating an appropriate research design. Therefore, the data and information acquired from the secondary data is more reliable as they are published and recognize by qualified scholars and researchers.

3.3 Sampling Design

3.3.1Target Population

Assessing the importance of customer satisfaction in purchasing electrical appliances, relationship between customer satisfaction and service quality and measurement of delivery service performance were the main objective of this study. Therefore, the study was targeted to customers of large retail chain marketing electrical appliances. It was only targeted to current customers who had been purchased electrical appliance are at AEON for past two month.

3.3.2 Frame and Location of Sampling

Based on the study of Turner (2003), sampling frame was referred to the selection of particular members in a target population that are going to be the targeted respondents in the survey. In this study, the sampling location would be in Klang Valley, Malaysia and the questionnaire would be distributed to current customer who had purchase electrical appliances for the past 1 year. The sampling location is Klang Valley. The reason of choosing Klang Valley as the sampling frame is because most of the customers are from Klang Valley and the delivery warehouse is located centre also in Klang Valley to cater retail market.

3.3.3 Elements of Sampling

In this research, the elements of sampling are selected from population to participate on the survey. In this study, the survey feedbacks are preferred to be collected from current customers who had purchase electrical appliances for the past 2 month. Through these questionnaires, researcher can discover more clearly and accurately about the relationship between 5 independent variables which are reliability, tangibility, responsiveness, assurance and empathy that serve as the factors to influence the customer satisfaction on the sales after service quality. This survey is conducted to identify customer preferences of after sales service option towards customer satisfaction.

3.4 Sampling Techniques

There are two sampling techniques can be used in this study which are probability technique and non-probability technique. In this study, non- probability technique has been used as non-probability technique is inexpensive, extensively used and not require larger population. Hence, it can help to save or reduce the cost of sampling. According to Michael (2011), there are three primary types of non-probability sampling technique which include convenience sampling, purposive and quota sampling. In this study, convenience sampling is chosen as the sampling technique because the selection criterion for convenience sampling is based on the ease of obtaining data from the potential respondents. The selection of respondent

are based on the convenience regardless of their gender, age, ethnicity and this create greater convenience rather than quota sampling in obtaining the data from respondents.

3.5 Sample Size

Greener (2008) also mentioned that sampling size was referred to the number of respondents that are targeted to obtain data for the research. According to Sekaran (2000), sampling defined as process of selecting sufficient number elements from population in order to study and understanding the characteristic of sample subject. Therefore, we should refer the proposal rules of thumb by Roscoe (1975) in order to get appropriate sample size for research study. The first rules was the sample size should be larger than 30 but less than 500 to ensure the benefits of central limit and 500 assures the sample error will not exceed 10% of standard deviation around 98% of the time. The second rul is where the samples are separated into sub-samples categories with minimum types of 30. The third rule are the sample size need to be at least few times larger than number of variables of research study for multivariate research. There is method proposed by Tabachnick & Fidell (2007) where $N \geq 50+8m$ (N= sample size, m=number of independent variables). Therefore, the required sample size for this study calculated as below:

$N \geq 50+8m$

$\geq 50+8(5)$

≥ 90

Therefore, in such case the sample size decided to be 315 for this research as per proposed by Roscoe (1975). The sample size (315 respondents) was large enough to make it possible to use statistical techniques to show the probability that of the sample characteristic in the rest of population.

3.6 Research Instrument

In this research study, self-administered questionnaire was used as the research instrument. Self –administered survey was referred to how the respondent answer the question based on their personal opinion without the guidance of the interviewer. Based on the after sales service quality dimension such as reliability, tangibility, responsiveness, assurance and empathy will have significant influence on customer satisfaction towards the purchasing electrical appliance. Hence, questionnaire was design based on the objective to determine the relationship between the after sales service quality and the impact of customer satisfaction.

3.6.1 The purpose of using questionnaire

In this study, the most useful tool that can be accepted by the researchers for gathering of data thus gathers feedback or opinion from the respondents is through questionnaire. For collecting customer view from the targeted respondents is useful with a set of questions prepared in the survey. A well-developed questionnaire will be able to produce rich information that is ready to be used for further analysis and interpretation. In this study, questionnaire was used as a way to standardize the format of answering of each respondent and the process of data analysis will be carried out more effectually and proficiently as well as cheap as compared to other methods.

3.6.2 Questionnaire design

Burns & Bush (2011), in their research mentioned that close-ended questions or scaled-response questions are used whereby respondents are required to choose from response options or scale points on the questionnaire. A self-administered structured questionnaire was developed to collect quantitative data pertaining to the various aspects of service quality. The relative advantage of using an interval scale is that it allows researchers to apply diversified statistical techniques including arithmetic mean, standard deviation, product-moment correlations, regression analysis, and other statistics commonly employed in marketing research.

3.6.3 Pilot Test

According to Wilkinson & Birmingham (2003), by conducting a pilot test on a small number of samples, it will allow respondents to comment on the clarity of the content, and rectification can be made immediately. Pilot study will be conducted to detect weakness in design and instrumentation and to provide proxy data for selection of a sample. The pilot test is meant to establish whether all the questions from the questionnaire can be fully understood by the targeted respondents and hence rectification if need be. The pilot study will take place before the actual research. In this study, 30 sets of questionnaire were distributed among friends and family to obtain feedback and comments on the questions designed such as unclear statement, grammar mistakes or mistakes which leads to doubt of respondents in the survey. However, there is correction as been notified in the pilot test. Therefore the questionnaire is ready for distributed to the target respondents.

In the survey questionnaire, the questioned is adopted from the researcher Lovemore Mutsvanga (2014), An Assessment of After Sales Service Quality on Customer Satisfaction. A case study of Tel.One (Pvt) Limited, University of Zimbabwe. Thus, few respondents mentioned some questions are not relevant statement with the topic. Additional three subjective question also not many respondent answers the question. Therefore, the subjective questioned is removed from this survey.

Subjective question;
1) Suggest how the organization management should improve their service diversity so as to meet the customers' needs. (Explain)

2) Suggest how the organization management should improve delivery service quality so as to eliminate things like reschedule delivery day /poor delivery service. (Explain)

3) Suggest how the organization management should lead and support the workforce in order to properly ensure customers are served to their

expectations? (Explain)

3.7 Data Collection Procedures

The researcher will seek permission from the University Tunku Abdul Rahman (UTAR) to conduct the research.

3.8 Validity of Research Instruments

Validity is the accuracy and meaningfulness of inferences used on the research results (Kothari, 2004). The researcher will test the research tool to check their ability to measure what they purport to measure. Ambiguous items will be modified or discarded, based on the pilot results.

3.9 Construct Instrument

The sources of construct instrument used in this research are adapted from Lovemore Mutsvanga (2014), An Assessment of After Sales Service Quality on Customer Satisfaction. A case study of Tel.One (Pvt) Limited,, University of Zimbabwe.

SECTION B: AFTER SALES SERVICE QUALITY ANALYSIS

For each of the following Statements, place a tick in the box that corresponds to how you feel:

OVERVIEW

1.	Services you have received from Tel·One are the best services ever	SD	D	N	A	S.A
2.	Tel·One's service delivery is done timeously	SD	D	N	A	S.A
3	Tel·One's Services are very reliable	SD	D	N	A	S.A
4.	Tel·One's services meet your expectations and I am satisfied	SD	D	N	A	S.A
5.	The technical quality of Tel·One is excellent	SD	D	N	A	S.A
6.	Tel·One's staff are very responsive	SD	D	N	A	S.A
7.	There is value for money in Tel·One 's services	SD	D	N	A	S.A

TANGIBLES

1.	Tel·One is able to give you access to information about its product offerings	SD	D	N	A	S.A
2	Tel.One has visually attractive office, equipment and material	SD	D	N	A	S.A
3.	Appearance of Tel·One 's Staff is attractive and professional	SD	D	N	A	S.A

RELIABILITY

4.	Tel·One is able to deliver services timely	SD	D	N	A	S.A
5.	Tel·One is able to keep promises to its customers	SD	D	N	A	S.A
6.	Tel·One is dependable and consistent in solving customers' complaints	SD	D	N	A	S.A
7.	Tel·One always insists on zero defects in its product offerings	SD	D	N	A	S.A

RESPONSIVENESS

8.	Tel·One is able to tell its customers when services will be performed	SD	D	N	A	S.A
9.	Tel·One is able to provide prompt services and attends to customers' needs	SD	D	N	A	S.A
10.	Tel·One employees are willing to help customers in emergency situations	SD	D	N	A	S.A

EMPATHY

11.	Tel·One 's technical support staff is approachable and easy to contact	SD	D	N	A	S.A
12.	Tel·One has ability to communicate effectively with their customers	SD	D	N	A	S.A
13.	Tel·One has convenient operating times	SD	D	N	A	S.A
14.	The Tel·One 's staff always give me a personal service	SD	D	N	A	S.A

ASSURANCE

15.	Tel·One is able to fix problems	SD	D	N	A	S.A
16.	Employees have technological knowledge and skills in solving my problems	SD	D	N	A	S.A
17.	Tel·One has got ability to provide quality products	SD	D	N	A	S.A
18.	Tel·One is innovative	SD	D	N	A	S.A

Figure 5 Construct Instrument

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Referring to figure 5, the questionnaire was divided into three sections, namely general information about the respondents, service quality, and customer satisfaction. Perceived service quality was measured using 18 items (3-5 items for each of the five dimensions) on a Likert scale ranging from 1 ('strongly disagree') to 5 ('strongly agree'). The items were adopted from literature, Cronin & Taylor (1994). Customer satisfaction was measured using six items on a Likert scale anchored by 1 ('strongly disagree') and 5 ('strongly agree').The items were adopted from Thaichon et. al. (2014) and modified to suit the context of this study.

Another measurement item for the research is shown in the table below.

Table 1
SERVQUAL-dimensions based ASS attributes.

S.No	SERVQUAL dimensions	Description of attributes
1	Reliability (RL)	Consistency of service quality
		Choice and range of service
		Provision of needed spare parts
		Provision of service as promised
2	Responsiveness (RS)	Reasonable warranty policy
		Responsiveness to customer complaints
		Time taken for resolving the complaint
		Reasonable servicing cost
3	Assurance (AS)	Handling of customers
		Professionalism of service people
		Technical competence of service people
		Interpersonal behaviour of service people
4	Empathy (EM)	Accessibility of service people
		Easiness to contact service people
		Understanding the needs of customers
5	Tangibles (TA)	Provision of service tools/equipments
		Accessibility of service centre
		Complaint registration facilities
		Quality and availability of technical manuals / service documents
		Availability of information and advice at service centre

Figure 6 SERQUAL dimension based on after sales service attributed

Sources: Adapted from Muralidharan et. al. (2016): Modeling and investigating the relationship of after sales service quality with customer satisfaction, retention and loyalty – A case study of home appliances business. *Journal of Retailing and Consumer Services.*

Therefore for this research, the question is modified with the current context which is relevant to be involved in the research and the measurement on the independent variables is related to influence the customer satisfaction.

3.10 Data of scale measurement

In general, there are four types of scale that commonly used by researchers to measure the characteristic of an item in their studies. It includes nominal scale, ordinal scale, interval scale and ratio scale. For nominal and ordinal scale, it usually presented in categorical which allowed respondents to choose for the category which they belong to. However, for interval and ratio scale, it would involve numbering which require the respondents to choose for the extent of them agrees with the statement.

In every research study they must be a set of questionnaire developed to obtain related information from respondents. In this study, the questionnaire is divided into three major parts which include Part A (Personal Information of respondents), Part B (General opinion of respondents towards the independent variables) and Part C (Measurement of customer satisfaction with the service rendered by the organization).

In Part A, the questions are designed in nominal and ordinal scale which required the respondent to thick on the category they belongs to as it is aimed to obtained respondent personal information. Part B was designed in interval scale. In this part , Likert five point scales ranging from (1) Strongly Disagree to (5) Strongly Agree was used to measure the opinion of respondents towards the five independent variables in this study such as reliability, tangibility, responsiveness, assurance and empathy. For each of the independent variable, from 4 to 6 items was used to measure extend of respondents agree with statement and their opinion on the after sales service quality of the organization effort to meet customer expectation.

On the other hand, in part C of the questionnaire, the same scale was used as well to measure the customer satisfaction towards AEON employee service level and overall on individual expectation with the organization.

The summary of Likert five points scaling that used to measure the independentand dependent variables are summarized in table below.

Table 5 Summary of Likert Scale used to measure variables

Variables	Likert Scales
Independent variables	Strongly Disagree
Reliability	Disagree
Tangibility	Neutral
Responsiveness	Agree
Assurance	Strongly Agree
Empathy	
Dependent variable	
Customer Satisfaction after sales	

Sources: Develop for the research

3.11 Data processing

Since data is a raw material in research, it needs to be further process and become useful information after analysis done in accordance with the framework positioned down for the purpose at the time evolving the research plan. This is important for a logical study and for confirming that there is sufficient and relevant data for making anticipated assessments and analysis. Kothari (2004) mentioned that processing denotes editing, coding, classification and tabulation of the collected data is part of analysis the data.

In this study, editing data is to investigate the collected raw data to discover any errors and omissions and to re-correct them when possible. Editing involves a cautious inspection of the completed questionnaires and/or schedules. This editing process will ensure data are true and consistent with other facts assembled,

consistently entered, and have been well prepared to assist coding and tabularization mentioned by Kothari (2004). In other hand, it is to ensure that respondent are response to the question "correctly" so that a more precise and accurate data can be obtained for the analysis, Cooper & Schindler (2011).

Cooper & Schindler (2011), also mentioned that coding was referred to assigning numerical values to the answer in a questionnaire in order to make it standardized. The purpose of this step is to make the process of analysis look simple. Next step is data transcribing was referred to the process of data entry into the computer for further analysis. In this research, SPSS software version 23.0 will be used for transcribing data. However, data cleaning was defined as the process of checking and removal or correction if found the data are incomplete, inaccurate or contradict with the statement. This step is used to remove errors and filling missing values to increase the accuracy of the result in this study.

3.12 Data Analysis

In this study, a computer software program, Simple Linear Regression is used for the purpose of evaluating the research questions and data analysis. The reason of choosing simple linear regression analysis is because each independent variable is have direct relationship with customer satisfaction without mediator variable. Thus, the results generated are used to support these five hypotheses of this research. In this study, descriptive analysis, scale measurement and inferential analysis are involved. There are two types of data analysis, descriptive data analysis and inferential data analysis.

3.12.1 Descriptive Analysis

Descriptive data analysis describes data through the investigation and distribution of scores on each variable. It determines whether the scores on the different variables relate to each other. In this study, the main purpose of descriptive analysis is to summarize the data. The measures of central tendency do this job by finding out a single and easily understood number that best reflects the middle or is representative of the distribution of a set of scores on a specific variable. There are three commonly used measures of central tendency which is mean, median

and mode.

3.13 Scale Measurement

3.13.1 Normality Test

In statistics, normality tests are used to determine if a data set is well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. The Shapiro–Wilk test is a test of normality in frequentist statistics. The null-hypothesis of this test is that the population is normally distributed. Thus if the p-value is less than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population. In other words, the data are not normal. On the contrary, if the p-value is greater than the chosen alpha level, then the null hypothesis that the data came from a normally distributed population cannot be rejected. Meanwhile, the Kolmogorov–Smirnov test can be modified to serve as a goodness of fit test. In the special case of testing for normality of the distribution, samples are standardised and compared with a standard normal distribution

3.13.2 Reliability Test

This study applies an Internal Reliability Test to ensure that all respondents in this study are at ease to answer the questions that allow them to choose the best answers that describe their positions. Reliability means the quality of the measurements is error-free, thus consistent result is collected, Sekaran (2003). In this research, Cronbach's Alpha test is selected to test the reliability of coefficients that estimate the consistency of the measuring scale.

The Cronbach's Alpha reliability coefficients is rated as poor reliability if it is less than 0.6, fair reliability if it ranges from 0.60 to 0.70, good reliability if it ranges from 0.7 to 0.8 and it is considered as excellent good reliability if it is more than 0.8 George et at (2003). The minimum alpha value for each independent variable should be at least 0.70 which means that the proposed independent variables are reliable and acceptable, Zikmund et. al. (2010).

Table 6 Rule of Thumb for Internal Reliability Test

Cronbach's Alpha Coefficient, α	Level of Reliability
α ≥ 0.80	Excellent Good
0.70 ≤ α < 0.80	Good
0.60 ≤ α < 0.70	Fair
α < 0.60	Poor

Source: Zikmund et al. (2010)

In order to conduct Cronbach's Alpha reliability test, a pilot test is conducted through a participation of thirty respondents. All 40 questions in the questionnaire are compulsory to be answered by the respondents. Afterwards, the data is gathered and analyzed.

Table 7 Summary of Reliability Analysis

Variables	Construct	Number of Item	Cronbach's Alpha
Dependent Variable	Customer Satisfaction after sales	11	.956
Independent Variable 1	Reliability	5	.870
Independent Variable 2	Responsiveness	7	.917
Independent Variable 3	Assurance	4	.903
Independent Variable 4	Empathy	3	.897
Independent Variable 5	Tangibility	5	.876

Source: Developed for the research

Cronbach's coefficient was used to test the reliability of the variables. The Cronbach's Alpha for Customer Satisfaction (CS), Responsiveness and Assurance are more than 0.9, while for the Reliability, Tangibility and Empathy are more than 0.8. The Cronbach's Alpha for all variables are approach 0.8, therefore the construct measures are tend to be reliable and all components of the construct measures are tested for further analysis.

3.14 Inferential Analysis

However, inferential data analysis deals with empirical proof, enabling the researcher to make conclusions on populations from the sample data of empirical evidence. Judgmental analysis about a population from a sample can be made through inferential analysis. Hair et. al. (2007) mentioned that the researchers can make a conclusion to conclude if there is any relationship between the population variables by depending on the sample data. In order to develop a conclusion for the hypotheses and research questions that proposed in the previous chapter, Pearson's Correlation Coefficient Analysis and Multiple Linear Regression Analysis are selected and used.

In this research study, it is necessary to analyse the connotation between the dependent and independent variables in terms of its interrelated variations, so the Pearson's Correlation Coefficient will be used to assess this analysis. This particular analysis method will help to indicate the linearity and the direction of the studied relationships which is denoted by the coefficient (r). Therefore, to evaluate if the relationship is either linear or not, the correlation coefficient will be referred. A positive value of 1.0 will indicate a positive linear relationship and vice versa. Multiple regression analysis uses several independent variables to determine which one is significant. It helps to clearly identify the variable that has a great impact on the dependent variable. Chapter 4 will further present the results of the analysis conducted statically along with the interpretations.

3.14.1 Pearson Correlation Coefficient Analysis

Pearson's Correlation Coefficient Analysis measures the covariance between the dependent variable, Customer Satisfaction and independent variables namely, Reliability, Tangibility, Responsiveness, Assurance and Empathy.

The correlation coefficient or commonly known as 'r' demonstrates the direction and degree of relationship among the variables. The correlation coefficient, r ranges from -1.00 to +1.00. There is a strong positive or negative relationship when r approaches +1.00 or -1.00 respectively. On the other hand, there is no linear correlation between the two variables when r equals to 0.

Table 8 Rule of Thumb for Correlation Coefficient

Range of Coefficient	Strength of Association
±0.91 - ±1.00	Very Strong
±0.71 - ±0.90	Strong
±0.41 - ±0.70	Moderate
±0.21 - ±0.40	Weak
±0.00 - ±0.20	Very Weak

Source: Hair et. al. (2007).

3.14.2 Multiple Linear Regression Analysis

Multiple Linear Regression model consists of one dependent variable and at least two independent variables. The objective to adopt Multiple Linear Regression is to investigate the relationship between few independent variables and a dependent variable. Through this model, the most influential independent variable towards dependent variable will be ranked out. In this study, Multiple Linear Regression is chosen to identify which independent variable (Reliability, Tangibility, Responsiveness, Assurance and Empathy) has the strongest impact in influencing customers' satisfaction on the after sales service quality in purchasing electrical appliances. Hair et. al. (2007) also mentioned this model can explain the relationship between each independent variable and dependent variable as the coefficient indicates the average value change in dependent variable when there is a unit change in the independent variable.

The R-squared or commonly known as the coefficient of determination indicates the proportion of the variation of the dependent variable that can be explained by the variation of the independent variables. Next, the adjusted R-squared. It is similar with the R-squared, but adjusted R-square takes into account the degree of freedom while R-squared does not take into account the degree of freedom. To test whether the overall regression model is significant, F-test will be used. Hair et. al. (2007) mentioned that a conclusion of the overall model is significant can be made if the p-value from F-test is less than the alpha value of 0.05.

In this study, the multiple regression equation is presented as:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e$$

Where **Y** indicates Customer Satisfaction on the use of After Sales Service in Distribution Centre;

X_1 indicates Reliability;

X_2 indicates Tangibility;

X_3 indicates Responsiveness;

X_4 indicates Assurance;

X_5 indicates Empathy;

b_0 = intercept;

b_1, b_2, b_3, b_4, b_5 = slope of coefficient;

e = error term

3.15 Conclusion

This chapter mainly focuses on the methodology used in this research. An appropriate research methodology plays a vital role in a research as it can affect the accuracy of the results of the study. Overall, this chapter explains the part of data collection methods, sampling design, research instrument, construct measurement, methods of data analysis are adopted in this study. This chapter basically has a linkage to the following chapter which provides a fundamental description to work on the methodology used in this research. In the following chapter, it will elaborate further on the results which are relevant to the research questions and hypothesis. Finally, it will include discussion and interpretation of the result of hypothesis as well.

CHAPTER 4 FINDINGS

4.0 Introduction

This chapter provides analysis and finding based on data collected. Data is collected from 315 respondents and is analyzed by using Statistical Package for the Social Sciences (SPSS) in order to test the validity of hypotheses. This chapter covered 4 main analyses which are descriptive analysis, reliability analysis, normality analysis and inferential analysis. Tables and charts were presented for easy understanding and interpretation.

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4.1 Response Rate

For the purpose of this study the researcher decided to distribute total 500 questionnaires using Google Form to the current customer. The rationale of using Google Form as a platform to distribute the questionnaire is because it is easy access and also can save time. For doing this was to provide sufficient time for the questionnaires to be distributed and answered to the entire respondent. Out from the 500 questionnaire distributed to all the related respondents, 315 questionnaire were returned with the rate of 63%. 185 questionnaires were identified not be return back. Therefore, only 315 questionnaires were used for data analyses purpose. The average response rate was 63%, and this according to Collins (2014), is an acceptance response rate for medium size sample, with 100-500 respondents. Table 9 shows the details for the rate of survey returned in actual study.

Table 9 Survey Return Rate

Respondent	Questionaire Distributed	Questionaire (Valid)	Questionaire (Invalid)	Total Questionaire validated and Collected (% of respond rate)
AEON Customers	500	315	185	63%

4.2 Profile of Respondents

The profile of respondents was described in this section. Frequency distributions, percentage and bar chart were obtained for demographic background. The profiles of the respondents in the demographic background include gender, age, professional status, rating for delivery service quality and recommendation of delivery services to others by the respondents. The data was gained from Section A of questionnaires and the results to be discussed below:

4.2.1 Respondents' Gender

Table 10 reports the gender of respondents from the customer of a large retails chain marketing electrical appliance in Klang Valley who involved in this study. The findings show that out from 315 respondents, 136 (43.2%) were male meanwhile 179 (56.8%) were female. Thus, it can be concluded that for this study, the number of female respondents were slightly higher than the number of male respondents.

Table 10 Gender

Gender	Frequency	Percentage (%)
Male	136	43.2
Female	179	56.8
Total	**315**	**100**

Figure 8 Bar Chart of Gender

<u>4.2.2 Respondents' Age</u>

Table 11 illustrated the age of respondents from the customer of a large retails chain marketing electrical appliance in Klang Valley who involved in this study. Most of the respondents aged between 35-44 years old which was 48 (35.9%) of them. This is followed by those who were 45-54 years old with total 43 (28.9%) respondents. Meanwhile, 78 (24.8%) of the respondents aged between 25-34 and followed by aged between 18-24 years old was about 23 (7.3%). Lastly, aged 55 and above are about 10 (3.2%) respondents.

Table 11 Respondent Age Group

Age	Frequency	Percentage (%)
18-24 years	23	7.3
25-34 years	78	24.8
35-44 years	113	359.
45-54 years	91	28.9
55 and above	10	3.2
Total	**315**	**100**
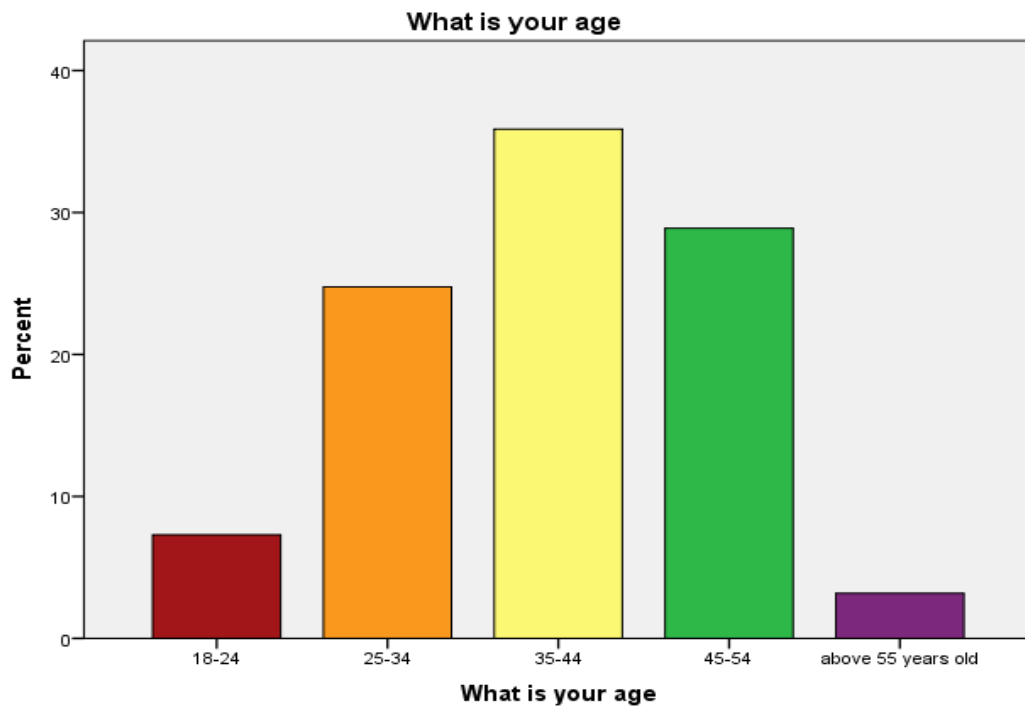
Figure 9 Bar Chart of Age

4.2.3Respondents' Professional Status

Table 12 gives the explanation on the professional status of the respondents who are involved in this study. The result shows that most of the respondents were employed that represent about 238 (75.6%) respondents. This followed by unemployed respondents with total 52 (16.5%) respondents and student was about 25 (7.9%) respondents.

Table 12 Professional Status

Professional Status	Frequency	Percentage (%)
Student	25	7.9
Employed	238	75.6
Unemployed	52	16.5
Total	**315**	**100**
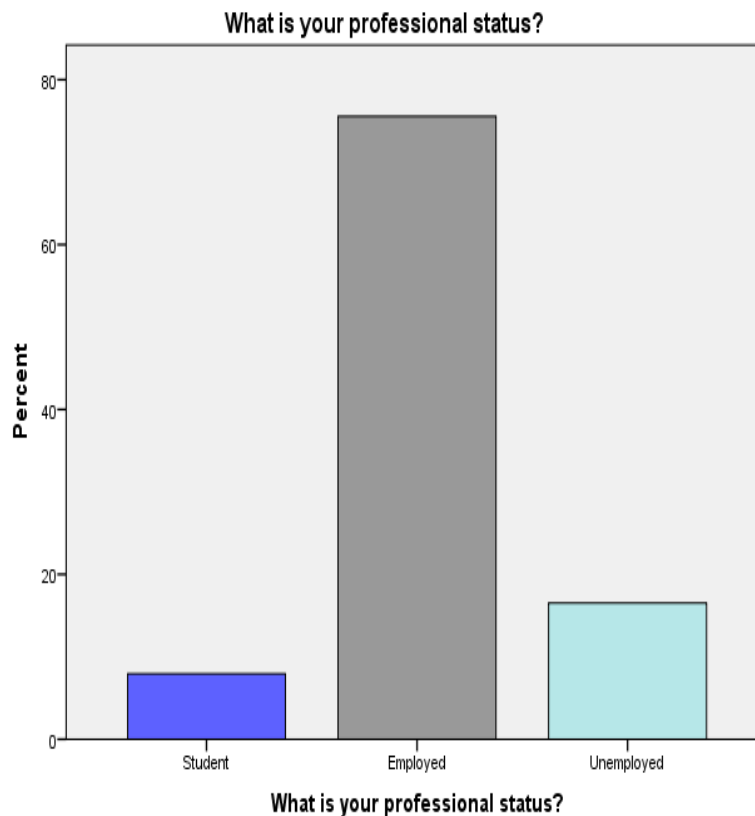
Figure 10 Bar Chart of Professional Status

4.2.4 AEON Electrical Delivery Service Quality

This question is to measure how respondent in Klang Valley would rate the AEON Electrical delivery services quality. There is four level of measurement that been use by the researcher which is satisfying, good, fair and dissatisfying. As shown in Table 13 out from 315 respondents, majority of the respondents have rate good for the service quality that provided at AEON electrical department which the number is 150 (47.6%) respondents. This followed by satisfying about 114 (36.2%) respondent. Next were fair about 40 (12.7%) respondents. Only 11 respondents feel dissatisfying with the service quality by AEON electrical department which bring the percentage of 3.5%.

Table 13 AEON Electrical Delivery Service Quality

Level of Service Quality	Frequency	Percentage (%)
Satisfying	114	36.2
Good	150	47.6
Fair	40	12.7
Dissatisfying	11	3.5
Total	**315**	**100**
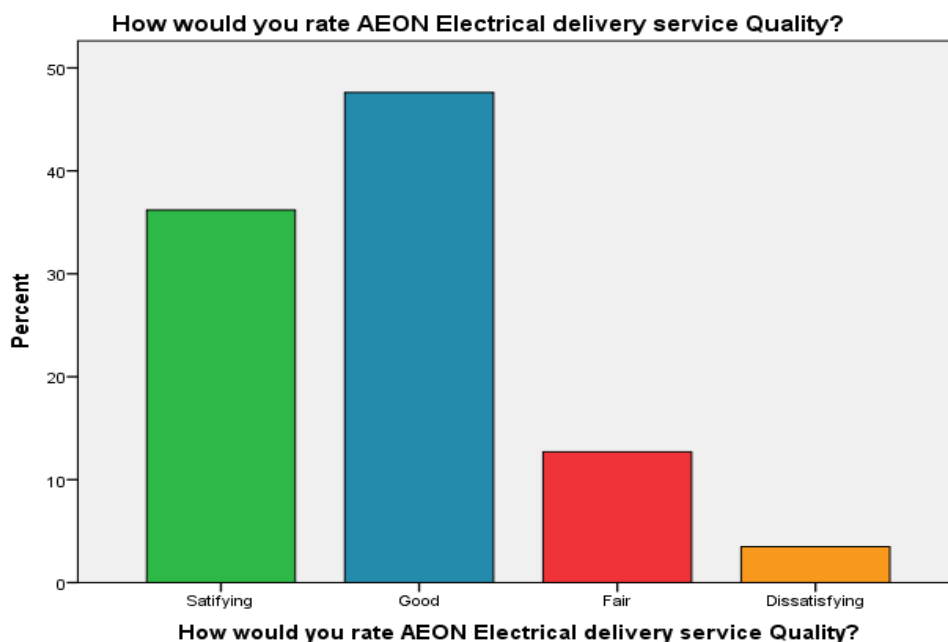
Figure 11 Bar Chart of AEON Electrical Delivery Service Quality

4.2.5 Recommendation of AEON Electrical delivery service to others

For the last question in section A, the researcher would like to know if the respondents in Klang Valley would like to recommend AEON Electrical delivery services to other people. The rating measurement used by the research which is likely and less likely.

As shown in Table 12, by analyzing the last question in section A it was found that most of the respondents likely to recommend the AEON electrical delivery services to others which is 250 respondents rate (79.4%) and only 65 (20.6%) respondent was less likely.

Table 14 Recommendation of Delivery Services

Recommendation of Delivery Services	Frequency	Percentage (%)
Likely	250	79.4
Less Likely	65	20.6
Total	**315**	**100**
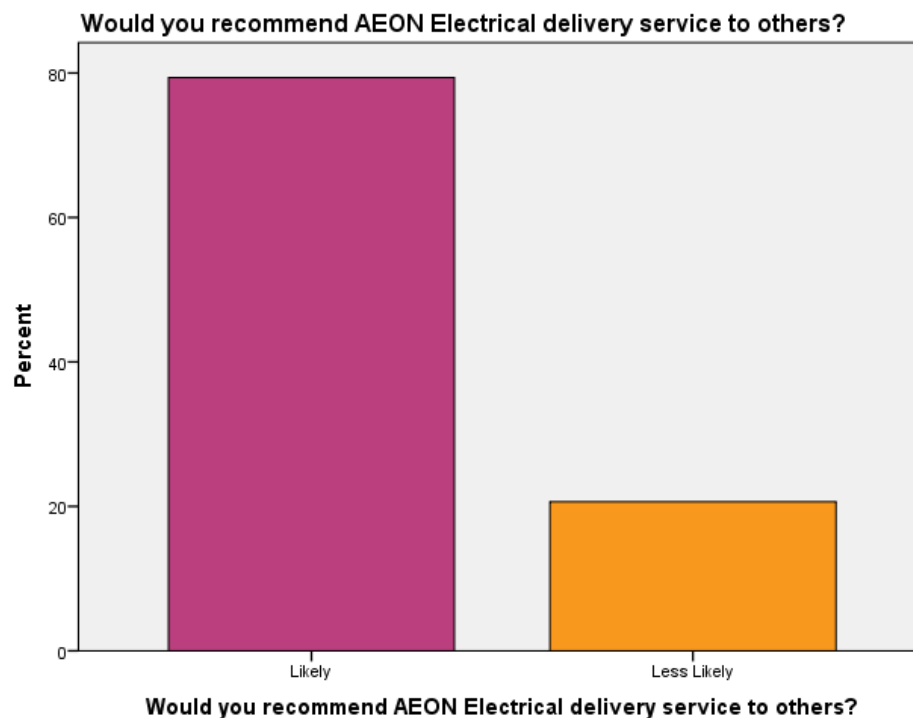
Figure 12 Bar chart of Recommendation of AEON Electrical Delivery Services

4.3 Descriptive Statistics

For the purpose of this study, descriptive statistic was computed for both independent and dependent variables. The interpretation of the scores were based on the Best' Principle from Thaoprom (2004). Scores were divided by three ranges such as high, average and low. Thus, the results were:

- Scores between 1 – 2.33 = Low Scores
- Scores between 2.34 – 3.67 = Average Scores
- Scores between 3.68 – 5.00 = High Scores

As stated in Table 15 below, tangibility has the highest mean score and standard deviation (M= 3.7562, SD=.64244) and this indicates as high score while empathy (M=3.5799), responsiveness (M=3.5896) and assurance (M=3.6341) has the lowest mean score but high scores for each standard deviation empathy (SD=.84391), responsiveness (SD=.69580) and assurance (SD=.79763

Reliability has also high score which is mean and standard deviation was (M=3.6933, SD=.65076).

Table 15 Descriptive Statistics for After Sales Service Quality Factor

Variables	Mean	Standard Deviation
Reliability	3.6933	-65076
Responsiveness	3.5896	.69580
Assurance	3.6341	.79763
Empathy	3.5799	.84391
Tangibility	3.7562	-64244

Table 16 Descriptive Statistics for Customer Satisfaction

Variables	Mean	Standard Deviation
Customer Satisfaction	3.7812	.71398

In relation to the dependent variable, Table 16 above shows the descriptive statistic for dimensions of dependent variable which is customer satisfaction. For customer satisfaction dimensions in dependent variable indicate high

scores in mean and standard deviation (M=3.7812, SD=.71398).

4.4 Normality Test

Normality test must be assumed in order to proceed with the correlation analysis. The data must be tested for normality in order to know the shape of the distribution. The shape of the distribution should be normally distributed on the predicted depend variable score. A normal distribution of data will show that the plot will be distributed over a straight diagonal line, mentioned by Coakes and Ong, (2011). After data screening and cleaning were conducted, violation of the assumption was tested by running the descriptive statistics. The results of skewness and kurtosis value were attained to identify whether the data is normally distributed or not. Based on what said by Hair, and Anderson (2010), the normal distribution were acceptable when the skewness and kurtosis value are in the range of ±3 for each variable. Table 17 illustrated the normality results of skewness and kurtosis normality values for after sales Service Quality Factor and Customer Satisfaction. From the result the data for this study was normal.

Table 17 Normality Results: Values for Skewness and Kurtosis (N=315)

Section	Variables	Skewness	Kurtosis
B	Reliability	- .973	2.174
	Responsiveness	-.829	1.690
	Assurance	-.907	1.523
	Empathy	-.637	.605
	Tangibility	-.866	2.045
C	Customer Satisfaction	-1.216	2.382

4.5 Reliability of Data

The reliability analysis was used to determine the consistency of items measuring the intended variables. The Cronbach's alpha values were used to assess the reliability of items. The values were in range of .720 and 0.939 signify that the items reliably measured the intended variables as they are supposed to be measured mentioned by Sekaran and Bougie (2013). Based on George and Mallery (2003) Rules' of thumb, the closer Cronbach's alpha coefficient to 1.0, the larger the internal consistency of the items in the scale and it does consider excellent items. But the Cronbach's alpha that greater than >0.5 in range of poor but still consider acceptable to measure the relationship between independent variables and dependent variables. Table 18 illustrated George and Mallery (2003) Rules' of thumb tables.

Table 18 George and Mallery (2003) Cronbach's Alpha Coefficient

Cronbach's alpha coefficient	George and Mallery (2003) Rules' of Thumb
≥.9	Excellent
≥.8	Good
≥.7	Acceptable
≥.6	Questionable
≥.5	Unacceptable

For this study, the researcher identified the reliability for independent variables instrument. Table 19 shown the Cronbach's alpha for independent variables which were after sales Service Quality Factor comprised the dimensions of reliability, responsiveness, Assurance, Empathy and Tangibility.

Table 19 Cronbach's Alpha Scores for the After Sales Service Quality (ASSQ) Factor Dimensions (N= 315)

Section	Scales	No of Scale Item	Reliability Coefficient (Alpha) (n=151)
B	ASSQ Factor		
	Reliability	5	.870
	Responsiveness	7	.917
	Assurance	4	.903
	Empathy	3	.897
	Tangibility	5	.876

Based on Table 19 above, the Cronbach's alpha for independent variables which were after sales service quality factor (ASSQ) as overall in the range of $\geq.8$. The dimensions for after sales service quality factor namely responsiveness and assurance have an excellent value in Cronbach's alpha which is .917 and .903. Meanwhile reliability, empathy and tangibility have a good value in Cronbach's alpha which is .897 and .876.

Table 20 shown the Cronbach's alpha for dependent variables which were customer satisfaction.

Table 20 Cronbach's Alpha Scores for the Customer Satisfaction (n= 315)

Section	Scales	No of Scale Item	Reliability Coefficient (Alpha) (n=315)
C	Customer Satisfaction	11	.956

Based on Table 20 above, the Cronbach's alpha for dependent variables which were customer satisfaction have an excellent value of Cronbach's alpha which is .956. Therefore the values of Cronbach's alpha for this study were reliable and valid. The items were used for data analysis purposes.

4.6 Inferential Analysis

In this section, Person's correlation coefficient and multiple linear regression are used to test the intensity or strength of relationship between all IVs and DV. Pearson's significant level of 5% will be chosen to analyze the hypothesis. If p-value is less than 0.05, null hypothesis is rejected; while if p-value is higher than 0.05, null hypothesis is accepted said by Malhotra, (2007). Both Person's correlation coefficient and multiple linear regressions are analyses and discussed in the following tables. The finding was used to determine whether the hypotheses are accepted or rejected.

4.6.1 Pearson's Correlation Coefficient

Based on the results of Pearson's correlation coefficient analysis illustrated, all IVs has significant relationship with the DV since p-value is less than 0.05. By referring to the strength of association standard presented in Table 3.3, the empirical results shown that after sales service quality factor has a strong positive relationship with customer satisfaction (.890) among Klang Valley respondent. Result also revealed that customer satisfaction has a very strong positive relationship with reliability (0.809), responsiveness (0.835) and tangibility (0.844). The strong positive relationship portrays between customer satisfaction with assurance (0.796) and empathy (0.777).

Generally in social science an alpha level of 0.05 and 0.01 is used as the level of significance representing the 95% and 99% confidence level respectively according to Pallant (2005). For the purpose of this study, the researcher decided to use 0.05 level of significance. Subsequently for this study guidelines provided by Cohen (1988) were used to understand the relationship between quality of work life and organizational commitment. It can also be used to explain the strength of the relationship in term of the value of Pearson correlation (r) and the direction of the relationship for the variables used in this study. The guidelines are illustrated in the Table 4.18 below:

Table 21 Guidelines on the Interpretation of Correlation Coefficient
Based On R Values from Salkind, (2006)

Degree of Correlation	R Value
Very Strong	±0.8 and1.0
Strong	±0.6 and0.8
Moderate	±0.4 and0.6
Weak	±0.2 and0.4
Very Weak	±0 and0.2

As shown in Table 21 the result indicated that there is a very strong positive and significant relationship between after sales service quality factor and customer satisfaction ($r=.890$, $p<0.05$).

Table 22 Correlation between After Sales Services Quality Factor
 and Customer Satisfaction.

Correlations

		CSatisfaction	MeanASSQ
CSatisfaction	Pearson Correlation	1	.890[**]
	Sig. (2-tailed)		.000
	N	315	315
MeanASSQ	Pearson Correlation	.890[**]	1
	Sig. (2-tailed)	.000	
	N	315	315

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

H1: The after sales service quality and customer satisfaction has a positive relationship

The result of the Pearson Correlation analysis indicates that there is a very strong positive and significant relationship between after sales service quality factor and customer satisfaction. The finding was supported by study conducted by Freyedon Adel and Ebrahim (2012) stating that after sales service quality characteristic has significant positive relationship with the customer satisfaction.

Based on the finding it is proven that there is a very strong positive and significant relationship between after sales service quality factor and customer satisfaction among respondent in Klang Valley. (r=.890, p<0.05). Thus, the hypotheses 1 indicate that after sales service quality and customer satisfaction has a positive relationship is accepted.

4.7 Hypothesis Developed

The following hypotheses were developed to support the research question in this study. The relationship with each dimension in independent variables that is after sales services quality factor comprised of reliability, responsiveness, assurance empathy, tangibility and dimensions in dependent variable that is customer satisfaction was tested using the Pearson correlation. Below was the hypotheses developed to support the research question in this study:

> RQ1: How does the reliability of after sales service affect customer satisfaction in purchasing AEON electrical appliances?
> H2: Reliability component and customer satisfaction have a positive relationship.\

> RQ2: How does employees' responsiveness of after sales service affect   customer satisfaction in purchasing AEON electrical appliances?
> H4: Responsiveness component and customer satisfaction have a positive relationship

> RQ3: How does tangible of after sales service affect customer satisfaction in purchasing AEON electrical appliances?
> H3: Tangible component and customer satisfaction have positive relationship

RQ4: How does employees' assurance of after sales service affect customer satisfaction in purchasing AEON electrical appliances?

H5: Assurance component and customer satisfaction have a positive relationship

RQ5: How does empathy of after sales service affect customer satisfaction in purchasing AEON electrical appliances?

H6: Empathy component and customer satisfaction have a positive relationship

Table 23 designates answer the entire research question that has been develops in this study. At the same time it the research hypothesis also can be measure by referring to the table as per below:

Correlations

		CSatisfaction	QSReliability	QSResponsiveness	QSAssurance	QSEmpathy	QSTangibility
CSatisfaction	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	315					
QSReliability	Pearson Correlation	.809**	1				
	Sig. (2-tailed)	.000					
	N	315	315				
QSResponsiveness	Pearson Correlation	.835**	.790**	1			
	Sig. (2-tailed)	.000	.000				
	N	315	315	315			
QSAssurance	Pearson Correlation	.796**	.730**	.864**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	315	315	315	315		
QSEmpathy	Pearson Correlation	.777**	.682**	.839**	.868**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	315	315	315	315	315	
QSTangibility	Pearson Correlation	.844**	.755**	.801**	.764**	.716**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	315	315	315	315	315	315

Table 23 Correlation

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

The hypothesis H2 to hypothesis H6 was developed to identify the relationship between each dimension in after sales service quality and customer satisfaction. Table 21 shows the result of relationship between each dimension in after sales service quality factor and customer satisfaction. The hypothesis H2 for research question one stated that there is a positive relationship between reliability component and customer satisfaction. As shown in the Table 23, the result in Pearson Correlation indicates that reliability component has very strong, positive and significant relationship with customer satisfaction among respondent in Klang Valley (r=.809, n=315, p<0.05). The results showed that reliability component plays a dynamic role in determine customer satisfaction among customer at AEON electrical department. Therefore the hypothesis is accepted.

Next was hypothesis H4 stated that there is a positive relationship between responsiveness component and customer satisfaction. The result from Pearson correlation indicates that responsiveness component has very strong positive relationship with customer satisfaction component (r=.835, n=315, p>0.05). Therefore the hypothesis four is also accepted.

The hypothesis H3 stated that there is a positive relationship between tangible component and customer satisfaction among respondent in Klang Valley. Pearson correlation result showed that tangible component has very strong positive relationship and significant relationship with customer satisfaction (r=.844, n=315, p>0.05).Therefore the hypothesis three is also accepted. The next analysis was to find the answer for research question four and also to study the hypothesis five. The H5 stated that assurance component and customer satisfaction have a positive relationship. Pearson correlation result showed that assurance component has strong, positive and significant relationship with customer satisfaction (r=.796, n=315, p<0.05). Therefore the hypothesis is accepted.

The hypothesis H6 for research question five stated that there is a positive relationship between empathy and customer satisfactions. As shown in the Table 21, the result in Pearson Correlation indicates that empathy has strong, positive and significant relationship with customer satisfaction (r=.777, n=315, p<0.05). The result showed that empathy component plays a minimum dynamic role of customer satisfaction within respondents in Klang Valley. Therefore the hypothesis is accepted.

4.8 Multiple Regression Analysis

RQ6: What is the dominant service quality dimension that has a strong relation with customer satisfaction in purchasing AEON electrical appliances?

The objective of this study was to investigate which element in the after sales service quality factor is the most influence on customer satisfaction among respondent in Klang Valley. Multiple regressions were used to explore which variable in after sales service quality namely reliability, responsiveness, assurance, empathy and tangibility is the dominant service quality dimension to customer services. The following analyses were study to answer the sixth research question.

Table 24 Multiple Regressions between After Sale Service Quality Factor and Customer Satisfaction

	Standardized Coefficients Beta	
Reliability	.809	
Responsiveness	.835	
Assurance	.796	
Empathy	.777	
Tangibility	.844	
R		.818
R²		.815
F value		277.199
Sig F value		.000
Durbin Watson		1.963

The R² of .815 indicates that 81.5% of the variance in the regression model was explained by the independent variables. The significance (F value = .000, p < .05) indicates model fit and the Durbin Watson value of 1.963 indicated acceptable dependency of variables in the regression model. Looking at the dimensional contribution of the independent variables (after sales service quality factor) to explaining the dependent variable (customer satisfaction), tangibility (β = .844, p<.05) are found to be significant predictors. Therefore to answer for the research question 6 is tangibility is the dominant service quality dimension that has a strong relation with customer satisfaction in purchasing AEON electrical appliances among respondent in Klang Valley.

Table 25: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.904[a]	.818	.815	.30730	1.963

a. Predictors: (Constant), QSTangibility, QSEmpathy, QSReliability, QSAssurance, QSResponsiveness

b. Dependent Variable: CSatisfaction

By referring to the Table 25, the value of R square was 0.818. It means that all the five IVs can explain 81.8% of the DV's variation. In other word, there is other variables which can contribute another 18.2% of DV's variance which were not included in the research.

Table 24: ANOVA

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	130.886	5	26.177	277.199	.000[b]
	Residual	29.180	309	.094		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSTangibility, QSEmpathy, QSReliability, QSAssurance, QSResponsiveness

As referring to the result shown in Table 26, the p-value (sig 0.000) is lesser than the alpha value 0.05, thus the F-statistic result of 277.199 is significant. Hence the predictors which are the IVs (reliability, tangibility, responsiveness, assurance and empathy) are significantly explaning the variance of dependent variable (customer satisfaction).

Table 27 Coefficient

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.042	.109		-.388	.698
	QSReliability	.290	.046	.264	6.264	.000
	QSResponsiveness	.156	.061	.152	2.539	.012
	QSAssurance	.044	.052	.050	.855	.393
	QSEmpathy	.137	.044	.161	3.082	.002
	QSTangibility	.411	.049	.370	8.417	.000

a. Dependent Variable: CSatisfaction

Table 27 indicates empathy, responsiveness and assurance dimension of service quality have a significant influence on customers' satisfaction at 95% confidence level. Conversely, reliability and tangibles dimension have high significant influence on customers' satisfaction. The significant service quality factors have been included for the establishment of the function. As refer to the Table 26, reliability and tangibility with the p-value of 0.000, responsiveness with the p-value of 0.012, empathy with the p-value of 0.002 and assurance with the p-value 0.393 were well represent the variance of the dependent variable, customer satisfaction as they did not exceed the alpha value 0.05.

In this study, the multiple regression equation is presented as:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$$

Where **Y** indicates Customer Satisfaction on the use of After Sales Service in Distribution Centre;

X_1 indicates Reliability;

X_2 indicates Tangibility;

X_3 indicates Responsiveness;

X_4 indicates Assurance;

X_5 indicates Empathy;

a= constant

b_1, b_2, b_3, b_4, b_5 = slope of coefficient;

The established regression function is:

$$CS = -0.042 + 0.290X1 + 0.156X2 + 0.044X3 + 0.137X4 + 0.411X5$$

The regression results indicate all the service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) combined significantly influence the satisfaction of customers. The adjusted R^2 of 0.815 indicates 81.5% of the variance in customer satisfaction can be predicted by the after sales quality is by the organization. The overall satisfaction of customers seems to have statistically significant and positive effect on their loyalty. This indicates customer satisfaction plays an important role in enhancing customer expectation at AEON electrical department.

Table 28 Summary of the hypotheses (Correlation)

Hypotheses	Scored	Decision
H1: The after sales service quality and customer satisfaction has a positive relationship	β =.890**, p-value= 0.000	Accepted Very strong, positive and significant
H2: Reliability component and customer satisfaction have a positive relationship.	β =.809**, p-value= 0.000	Accepted Very strong, positive and significant
H3: Tangible component and customer satisfaction have a positive relationship	β =.844**, p-value= 0.000	Accepted Very strong, positive and significant
H4: Responsiveness component and customer satisfaction have a positive relationship	β =.835**, p-value= 0.012	Accepted Very strong, positive and significant
H5: Assurance component and customer satisfaction have a positive relationship	β =.796, p-value= 0.393	Accepted Strong, positive and significant

H6: Empathy component and customer satisfaction have a positive relationship	β =.777, p-value= 0.002	Accepted Strong, positive and significant

4.9 Conclusion

This chapter demonstrated results and findings of the study in answering research question. The findings then provided with discussion that supported the results. It is hoped that the result of this study will add to our understanding on the relationship of quality of work life and organizational commitment.

CHAPTER 5

DISCUSSIONS AND CONCLUSION

5.0 Introduction

In this chapter, the focus of this study is to discuss the major finding by interpreting and summarize the hypothesis of each variables in detailed. Based on the previous chapter, it is provides a discussion on the research result, which determine the significant of the hypothesis relevant to support the relationship with the customer satisfaction. Throughout the research study, it's proposing recommendations for future researcher to improve their research in the finding of after sales services as well as limitation of the present study. Finally, it also include conclusion in the end of this study.

5.1 Discussion of major findings

Table 29 Summary on hypothesis testing

Research objective	Research question	Hypothesis	Support/Not Support
To investigate the dominant service quality dimension that has a strong relation with customer satisfaction in purchasing AEON electrical appliances.	How does service quality dimension of after sales service affect customer satisfaction in purchasing AEON electrical appliances?	**H1**: At least one of the service quality dimensions has a significant with customer satisfaction.	Supported

To investigate the delivery reliability in after sales service affects customer satisfaction in purchasing AEON electrical appliances	How does the delivery reliability in after sales service affect customer satisfaction in purchasing AEON electrical appliances?	**H2**: There is a positive relationship between reliability and customer satisfaction.	Supported
To investigate the employees' assurance in after sales service affects customer satisfaction in purchasing AEON electrical appliances.	How does employees' assurance in after sales service affect customer satisfaction in purchasing AEON electrical appliances?	**H3**: There is a positive relationship between assurance and customer satisfaction.	Supported
To investigate the employees' responsiveness in after sales service affects customer satisfaction in purchasing AEON electrical appliances.	How does employees' responsiveness in after sales service affect customer satisfaction in purchasing AEON electrical appliances?	**H4**: There is a positive relationship between responsiveness and customer satisfaction.	Supported
To investigate the empathy in after sales service affects customer satisfaction in	How does empathy in after sales service affect customer satisfaction in purchasing AEON	**H5**: There is a positive relationship between empathy and customer	Supported

purchasing AEON electrical appliances.	electrical appliances?	satisfaction.	
To investigate the tangibility in after sales service affects customer satisfaction in purchasing AEON electrical appliances.	How does tangible in after sales service affect customer satisfaction in purchasing AEON electrical appliances?	**H6**: There is a positive relationship between tangible and customer satisfaction.	Supported

5.2 Relationship between reliability and customer satisfaction

As shown in Table 28, H_2 is supported by the result as p-value is < 0.0000 which is less than alpha value of 0.05 and has β of 0.809. This indicates that the relationship between reliability and customer satisfaction are significant. In this case, AEON delivery service quality has been projected fewer problems faced by customer due to manager of the organization managed to overcome the delivery issue and ensure the service is more reliable and consistent to customer. Moreover, the above result is consistent with past literatures from Parasuraman et. al. (2005) which proven that reliability was an essential determinant and had shown a significant association in customer satisfaction.

In present study, finding imply that reliability have significant impact on customer satisfaction. The possibility could be when staff have concern on the customer expectation and look into solution to assist the customer when face problem with after sales service especially delivery time and the product.

5.3 Relationship between responsiveness and customer satisfaction

As shown in Table 28, H4 is supported by the result as p-value is < 0.012 which is less than alpha value of 0.05. This indicates that the relationship between responsiveness and customer satisfaction are significant. Most of the respondents are not experience the delivery service before in AEON, therefore those experience customers know the how the delivery works in order to reach the customer.

Without cluster the customer both experience customer and not experience customer, the result obtained is only supporting the actual performance of AEON delivery service. Moreover, the above result is consistent with past literatures from Parasuraman et. al. (2003) which proven that responsiveness was an essential determinant and had shown a significant association in customer satisfaction.

5.4 Relationship between tangibility and customer satisfaction

As shown in Table 28, H3 is supported by the result as p-value is < 0.000 which is less than alpha value of 0.05. The results indicate that most of the respondent satisfied with the key element of Tangibility in after sales service is influence the customer expectation. The result supported with prior literatures that tangibility attributes have positive relationship with customer satisfaction by Saccani (2006). Customer tend to purchased product when the varieties of product offered at attractive price in retail store and always expect a good quality of product from the retailer. The value of the product influence customer to buy at reasonable price in order to fulfill their needs. Different customers are having different expectation when choosing the right product in terms of colour, features, and the quality of the product.

5.5 Relationship between empathy and customer satisfaction

As shown in Table 28, H6 is supported by the result as p-value is < 0.002 which is less than alpha value of 0.05. The result indicate that AEON customer prefer personal attention from salesperson to solve the issue. . The results indicate that most of the respondent satisfied with the key element of empathy in after sales service is influence the customer expectation. The result supported with prior literatures that empathy attributes have positive relationship with customer satisfaction by Saccani (2006). In this study, the service dimension 'empathy' ensure the following after sales service attributes such as accessibility of service people, easiness to contact service people and understanding the needs of customers.

5.6 Relationship between assurance and customer satisfaction

As shown in Table 28, H5 is supported by the result as p-value is < 0.393 which is less than alpha value of 0.05. The results indicate that most of the respondent satisfied with the key element of assurance in after sales service is influence the customer expectation. The results is supported with prior literature by Rigopulou (2008) that customer been assured by the staff will deliver the goods and ensure the delivery done as per procedures. In this study, the dimension of 'assurance' comprises of after sales service attributes such as handling of customers, professionalism of service people, technical competence of service people and interpersonal of service people to have similarity in assurance.

5.7 The relationship of after sales service quality and customer satisfaction

As shown in Table 28, H1 is supported by the result as p-value is < 0.000 which is less than alpha value of 0.05 and has β of 0.890. The result indicate that most of the respondent satisfied with the all the after sales service dimension (reliability, responsiveness, tangibility, assurance and empathy has positive relationship with customer satisfaction independent variables. This result also mentioned that after sales service not been influenced by customer satisfaction only. The result supported with prior literatures that after sales service quality attributes have positive relationship with customer satisfaction by Saccani (2006). Customers most likely tend to purchased the product after the check the service is more reliable and consistent with the process of after sales service during the receiving goods from supplier.

5.8 Implications of the Study

5.8.1 Theoretical Implication

This empirical research is target to understand how the customer react when there is dissatisfaction with after sales service quality happen when the expectation is very high to achieve. In this study, several theories are contribute to support the research finding and the independent variables with the combination of SERQUAL model. Moreover, this study has shown how the after sales service quality dimension (reliability, responsiveness, tangibility, empathy and assurance) affect the customer expectation in purchasing electrical appliances. Based on the previous literature review, the study shown that reliability dimension is the most positive significant factor influences the use of after sales service quality towards customer satisfaction in purchasing electrical appliances. In this research, it is proven that the impact of after sales services quality is has positive relationship with the customer satisfaction.

In this research, the theory of disconfirmation reveal the expected performance leads to positive disconfirmation when customer are more focus on the product quality and the after sales service dimension reliability show positive relationship between customer satisfaction. Based on the dissonance theory, customer are dissatisfied with the service rendered when the empathy from sales person does not meet customer expectation when the product quality is very poor and delay the confirmation to change the product as per expected.

5.8.2 Managerial Implication

Customer satisfaction has become the most main priority for the companies and any organization in their effort to improve after sales service quality and maintain customer loyalty. This study provides managers of the organization have depth understanding of customer expectation in order to deliver better product and service. In this research, managers should train their staff to be more knowledgeable and understand first what customer problem before offering a solution to customer. Based on previous experience, customer may not feel satisfied with the feedback from the management, if the problems still no solution in hand.

5.9 Limitations of the Study

In this empirical study, certain limitation has been addressed for future research. Firstly, due to the time and cost constraint, only 315 of data were able to collect for the analysis. Therefore, the sample size (315 respondent) may not accurately reflect the total numbers of actual customer in the entire Klang Valley. The confidence interval will provide a definitive range of plausible values. In this case, small sample size may even correspond to the total number of individual from the target population and it may convenient to study the entire population of AEON customer in retail stores. As a result, some respondent may not have depth understanding or information of after sales service and customer satisfaction as anticipated by researcher. In this case, most of the data were collected via online survey and the respondent feedback

is mostly accurate and moderate only.

5.10 Recommendations

Based on the finding of this study, the following recommendation are important for the improvement of after sales service quality for the purpose of increasing customer satisfaction in AEON. In order to obtain to have accurate strategic decision, the sample size should be large numbers in order to generate more reliable and precise finding. The finding should be also included interviews to gain deeper understanding of customer attitude and behavior towards the shopping experience with AEON people especially the home appliance department. Both interview and survey questionnaire session will gather more feedback with the walk in customer to address the perception of organization provider. Hence, a longer time frame is encouraged to conduct a more comprehensive study.

Future studies need to expand on the behavioral models and other variables which may influence the customer satisfaction. For instance, the "Word of Mouth" and "Retention Purchase" additional variables which affect the customer satisfaction to be included in the future research framework. In addition, a comparative study across out of Klang Valley is very important to verify from different demographic customer background the finding. At the same times, more empirical studies on different retailers are suggested for future research.

5.11 Conclusions

Generally, this study anticipated to understand the relationship of after sales service quality and customer satisfaction in the context of AEON organization in Malaysia. From the research, its concluded that respondent being satisfied with service rendered in AEON organization where AEON more tolerance and without compromising general complaint issues and feedback. It is noted that reliability, responsiveness, prompt of service, fulfillment of promises, sincerity in solving customer problem, personal attention to customers, and understanding customer needs were the key variables that were mentioned by the customer from the service provider in the case of customer felt dissatisfied with the service. It is appear that customer satisfaction in the context of AEON is less affected with the numbers of factors which is highlighted in the survey such as the validity of number of complaint case is resolve by assigned sales person at the store level as customer preferred for quick solution. Majority of the respondent prefer the assistance of salesperson, manager or departmental staff to pay personal attention to their queries and feedback. Customers are easy to approach any availability of department staff to deliver the message of their dissatisfaction on the service rendered with AEON.

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7.0 Appendix

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ACCOUNTANCY AND MANAGEMENT
(FAM) MASTER IN BUSINESS ADMINISTRATION

Questionaire Survey

Dear respondent,

I am Final Year student from Universiti Tunku Abdul Rahman (UTAR), Postgraduate Master in Business Administration. I am conducting a research project on the topic of "The Impact of After- sale service characteristics on customer satisfaction. A case on a Supermarket's Electrical Appliances department.

The objectives of this research are to examine the customer's satisfaction and feedback towards after sale services characteristics. The questionnaire is anonymous and confidential. This survey contains only five sections, which should take no more than 10 minutes to complete. All responses will be kept anonymous. Thank you for your precious time and participation in this survey.

Yours Faithfully,

Muraly Ganesh Doraisamy

ID: 120UKM 7678

I hereby consent on my voluntary participation in this survey which will be conducted anonymously. (As proposed accordingly by Personal Data Protection Statement- UTAR

☐   Yes – proceed to the next section

☐ No – responses will be discarded

SECTION A: PERSONAL INFORMATION
In this section, kindly please answer every question below.

1. What is your Gender?

a) Male [   ]   b) Female [   ]

2. What is your age group?

 a) 18-24years   [   ]   b) 25-34years   [   ]   c) 35-44 years   [   ]

d) 45-54 years [   ]   e) above 55years [   ]

3. What is your professional status?

a) Student [   ]   b) Employed   [   ]   c) Unemployed [   ]

4. How would you rate AEON Electrical delivery service Quality?

a) Satisfying [   ]   b) Good [   ]   c) Fair   [ ]   d) Dissatisfying [   ]

5. Would you recommend AEON Electrical delivery service to others?

a) Likely [   ]   b) Less likely [   ]

SECTION B: SERVICE QUALITY

Please show the extent to which you agree or disagree with the statements as indicated by the scale below. Please tick within the columns under your preferred position.

Strongly Disagree	Disagree	Not sure	Agree	Strong Agree
SD	D	NS	A	SA

RELIABILITY

NO	Reliability	SD	D	NS	A	SA
R_1	AEON is able to keep promises to its customers					
R_2	AEON is able to deliver service timely					
R_3	AEON always ensure good quality of the product packaging when delivered					
R_4	AEON staff is dependable & consistent in solving customer complaints					
R_5	AEON always insists on zero defects in its product offerings					

RESPONSIVENESS

NO	Responsiveness	SD	D	NS	A	SA
RS_1	AEON Frontline employees are always willing to help me.					
RS_2	Knowledgeable & courteous AEON employees always inspire confidence and trust to their customer.					
RS_3	AEON customer care staff are fast to respond even at busy times					
RS_4	AEON will ensure product is always in stock for delivery					

RS₅	Delay in repair service/ replacement always update customer within short period.					
RS₆	AEON staff update the delivery schedules promptly to the customers,					

ASSURANCE

NO	Assurance	SD	D	NS	A	SA
A_1	AEON staff are polite and knowledgeable.					
A_2	AEON staff are reliable and trustworthy.					
A_3	AEON staff has ability to communicate effectively with their customers.					
A_4	AEON delivery personnel are very kind and friendly.					

EMPATHY

NO	Empathy	SD	D	NS	A	SA
E_1	AEON staff understand the needs of customers					
E_2	AEON staff gives individualized attention to customers					
E_3	AEON staff show sincere interest to solve customer problem					

TANGIBILITY

NO	Tangibles	SD	D	NS	A	SA
T_1	AEON Electrical departmental store has attractive visual display.					
T_2	AEON Electrical delivery center have proper facilities for delivery goods					
T_3	AEON department staff is attractive and					

		SD	D	NS	A	SA
	professional					
T_4	AEON provide complaint registration facilities					
T_5	AEON has a list of available product types.					

SECTION C: CUSTOMER SATISFACTION

Please indicate the level to which you agree or disagree with the following statements about customer satisfaction during your encounter with AEON employees on the following scale. (Please tick the appropriate box).

NO		SD	D	NS	A	SA
Q.1	AEON provides value for money services					
Q.2	The staff ensures that customer expectations are met					
Q.3	The staff care for the customers					
Q.4	The staff endeavors to keep old and attract new customers					
Q.5	The delivery personnel provides reliable delivery service to customers					
Q.6	I feel satisfied when I get prompt services					
Q.7	I feel satisfied when a confident staff attends to me					
Q.8	I am satisfied with the convenience of AEON premises					
Q.9	Overall, the delivery service meet my expectation					
Q.10	I feel satisfied with the range of delivery service and easy accessible towards the service centre.					
Q.11	I will recommend AEON delivery service to others.					

SPSS 23.0 APPENDIXES

SECTION A: DESCRIPTIVE STATISTIC

Statistics

What is your gender

N	Valid	315
	Missing	0
Mean		1.5683
Median		2.0000

What is your gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	136	43.2	43.2	43.2
	Female	179	56.8	56.8	100.0
	Total	315	100.0	100.0	

Statistics

		What is your age	What is your professional status?	How would you rate AEON Electrical delivery service Quality?	Would you recommend AEON Electrical delivery service to others?
N	Valid	315	315	315	315
	Missing	0	0	0	0
Mean		2.9587	2.0857	1.8349	1.2063
Median		3.0000	2.0000	2.0000	1.0000

What is your age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	23	7.3	7.3	7.3
	25-34	78	24.8	24.8	32.1
	35-44	113	35.9	35.9	67.9
	45-54	91	28.9	28.9	96.8
	above 55 years old	10	3.2	3.2	100.0
	Total	315	100.0	100.0	

What is your professional status?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	25	7.9	7.9	7.9
	Employed	238	75.6	75.6	83.5
	Unemployed	52	16.5	16.5	100.0
	Total	315	100.0	100.0	

How would you rate AEON Electrical delivery service Quality?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Satifying	114	36.2	36.2	36.2
	Good	150	47.6	47.6	83.8
	Fair	40	12.7	12.7	96.5
	Dissatisfying	11	3.5	3.5	100.0
	Total	315	100.0	100.0	

Would you recommend AEON Electrical delivery service to others?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Likely	250	79.4	79.4	79.4
	Less Likely	65	20.6	20.6	100.0
	Total	315	100.0	100.0	

SECTION B

1. **DESCRIPTIVE STATISTIC (MEAN AND STANDARD DEVIATION)**

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
QSReliability	315	1.00	5.00	3.6933	.65076
QSResponsiveness	315	1.00	5.00	3.5896	.69580
QSAssurance	315	1.00	5.00	3.6341	.79763
QSEmpathy	315	1.00	5.00	3.5799	.84391
QSTangibility	315	1.00	5.00	3.7562	.64244
Valid N (listwise)	315				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CSatisfaction	315	1.00	5.00	3.7812	.71398
Valid N (listwise)	315				

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2. NORMALITY TEST

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
QSReliability	315	100.0%	0	0.0%	315	100.0%
QSResponsiveness	315	100.0%	0	0.0%	315	100.0%
QSAssurance	315	100.0%	0	0.0%	315	100.0%
QSEmpathy	315	100.0%	0	0.0%	315	100.0%
QSTangibility	315	100.0%	0	0.0%	315	100.0%

Descriptives

			Statistic	Std. Error
QSReliability	Mean		3.6933	.03667
	95% Confidence Interval for Mean	Lower Bound	3.6212	
		Upper Bound	3.7655	
	5% Trimmed Mean		3.7268	
	Median		3.8000	
	Variance		.423	
	Std. Deviation		.65076	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		.60	
	Skewness		-.973	.137
	Kurtosis		2.174	.274
QSResponsiveness	Mean		3.5896	.03920
	95% Confidence Interval for Mean	Lower Bound	3.5124	
		Upper Bound	3.6667	
	5% Trimmed Mean		3.6202	
	Median		3.5714	
	Variance		.484	
	Std. Deviation		.69580	
	Minimum		1.00	
	Maximum		5.00	

	Range		4.00	
	Interquartile Range		.71	
	Skewness		-.829	.137
	Kurtosis		1.690	.274
QSAssurance	Mean		3.6341	.04494
	95% Confidence Interval for Mean	Lower Bound	3.5457	
		Upper Bound	3.7226	
	5% Trimmed Mean		3.6797	
	Median		3.7500	
	Variance		.636	
	Std. Deviation		.79763	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		.75	
	Skewness		-.907	.137
	Kurtosis		1.523	.274
QSEmpathy	Mean		3.5799	.04755
	95% Confidence Interval for Mean	Lower Bound	3.4863	
		Upper Bound	3.6734	
	5% Trimmed Mean		3.6146	
	Median		3.6667	
	Variance		.712	
	Std. Deviation		.84391	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.00	
	Skewness		-.637	.137
	Kurtosis		.605	.274
QSTangibility	Mean		3.7562	.03620
	95% Confidence Interval for Mean	Lower Bound	3.6850	
		Upper Bound	3.8274	
	5% Trimmed Mean		3.7850	
	Median		3.8000	
	Variance		.413	
	Std. Deviation		.64244	

Minimum	1.00	
Maximum	5.00	
Range	4.00	
Interquartile Range	.60	
Skewness	-.866	.137
Kurtosis	2.045	.274

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
QSReliability	.145	315	.000	.936	315	.000
QSResponsiveness	.135	315	.000	.949	315	.000
QSAssurance	.128	315	.000	.936	315	.000
QSEmpathy	.138	315	.000	.949	315	.000
QSTangibility	.153	315	.000	.932	315	.000

a. Lilliefors Significance Correction

3. ELIABILITY TEST

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.870	.871	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEON is able to keep promises to its customers.	14.7397	7.429	.657	.434	.851
AEON is able to deliver service timely.	14.7587	7.044	.725	.534	.835
AEON always ensure good quality of the product packaging when delivered	14.7524	6.805	.719	.531	.836
AEON staff is dependable & consistent in solving customer complaints.	14.8159	6.756	.672	.451	.849
AEON always insists on zero defects in its product offerings.	14.8000	6.950	.708	.502	.839

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.917	.918	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEON Frontline employees are always willing to help me.	21.5524	17.643	.726	.563	.907
Knowledgeable &courteous AEON employees always inspire confidence and trust to their customer.	21.4952	17.684	.747	.590	.905
AEON customer care staff are fast to respond even at busy times.	21.6476	17.312	.740	.559	.906
AEON will ensure product is always in stock for delivery.	21.4921	18.047	.723	.537	.907
Delay in repair service/ replacement always updated to customer within short period.	21.5270	17.938	.744	.594	.905
AEON respond to customer on late delivery immediately.	21.5079	17.875	.748	.600	.905
AEON staff update the delivery schedules promptly to the customers.	21.5397	17.186	.792	.639	.900

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.903	.903	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEON staff are polite and knowledgeable.	10.9048	5.787	.802	.647	.868
AEON staff are reliable and trustworthy.	10.8698	5.827	.798	.643	.870
AEON staff has ability to communicate effectively with their customers.	10.9587	5.849	.789	.624	.873
AEON delivery personnel are very kind and friendly.	10.8762	6.179	.743	.553	.889

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.897	.897	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEON staff understand the needs of customers.	7.1937	3.067	.809	.655	.842
AEON staff gives individualized attention to customers.	7.1492	2.943	.785	.617	.863
AEON staff show sincere interest to solve customer problem.	7.1365	2.978	.795	.635	.853

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.876	.876	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEON Electrical departmental store has attractive visual display.	15.0222	6.894	.676	.473	.857
AEON Electrical delivery center have proper facilities for delivery goods.	15.0000	6.834	.736	.550	.843
AEON department staff is attractive and professional.	15.0571	6.882	.686	.488	.854
AEON provide complaint registration facilities.	15.0286	6.971	.681	.472	.855
AEON has a list of available product types.	15.0159	6.462	.750	.569	.838

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.956	.956	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AEON provides value for money services.	37.8508	52.764	.753	.600	.953
The staff ensures that customer expectations are met.	37.8825	51.575	.773	.645	.953
The staff care for the customers.	37.9746	50.999	.775	.657	.953
The staff endeavors to keep old and attract new customers.	38.0000	50.994	.762	.647	.953
The delivery personnel provides reliable delivery service to customers.	37.7873	51.996	.779	.629	.953
I feel satisfied when I get prompt services.	37.6603	51.715	.762	.637	.953
I feel satisfied when a confident staff attends to me.	37.7111	51.900	.760	.641	.953
I am satisfied with the convenience of AEON premises.	37.7714	50.801	.820	.701	.951
Overall, the delivery service meet my expectation.	37.7460	50.413	.853	.767	.950
I feel satisfied with the range of delivery service and easy accessible towards the service centre.	37.7873	50.703	.838	.752	.950
I will recommend AEON delivery service to others.	37.7651	49.340	.880	.809	.949

4. PEARSON'S CORRELATION COEFFICIENT

Correlations

		CSatisfaction	MeanASSQ
CSatisfaction	Pearson Correlation	1	.890[**]
	Sig. (2-tailed)		.000
	N	315	315
MeanASSQ	Pearson Correlation	.890[**]	1
	Sig. (2-tailed)	.000	
	N	315	315

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

Correlations

		CSatisfaction	QSReliability	QSResponsiveness	QSAssurance	QSEmpathy	QSTangibility
CSatisfaction	Pearson Correlation	1	.809**	.835**	.796**	.777**	.844**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	315	315	315	315	315	315
QSReliability	Pearson Correlation	.809**	1	.790**	.730**	.682**	.755**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	315	315	315	315	315	315
QSResponsiveness	Pearson Correlation	.835**	.790**	1	.864**	.839**	.801**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	315	315	315	315	315	315
QSAssurance	Pearson Correlation	.796**	.730**	.864**	1	.868**	.764**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	315	315	315	315	315	315
QSEmpathy	Pearson Correlation	.777**	.682**	.839**	.868**	1	.716**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	315	315	315	315	315	315
QSTangibility	Pearson Correlation	.844**	.755**	.801**	.764**	.716**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	315	315	315	315	315	315

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

5. MULTIPLE LINEAR REGRESSIONS

5.1 Reliability

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.809[a]	.655	.654	.41996	1.988

a. Predictors: (Constant), QSReliability

b. Dependent Variable: CSatisfaction

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	104.863	1	104.863	594.578	.000[b]
	Residual	55.203	313	.176		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSReliability

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.501	.137		3.672	.000
	QSReliability	.888	.036	.809	24.384	.000

a. Dependent Variable: CSatisfaction

5.2 Responsiveness

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.835^a	.697	.697	.39333	1.643

a. Predictors: (Constant), QSResponsiveness

b. Dependent Variable: CSatisfaction

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	111.643	1	111.643	721.647	.000^b
	Residual	48.423	313	.155		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSResponsiveness

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.705	.117		6.045	.000
	QSResponsiveness	.857	.032	.835	26.863	.000

a. Dependent Variable: CSatisfaction

5.3 Assurance

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.796^a	.634	.633	.43242	1.771

a. Predictors: (Constant), QSAssurance

b. Dependent Variable: CSatisfaction

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	101.540	1	101.540	543.041	.000^b
	Residual	58.526	313	.187		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSAssurance

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.190	.114		10.458	.000
	QSAssurance	.713	.031	.796	23.303	.000

a. Dependent Variable: CSatisfaction

5.4 Empathy

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.777[a]	.603	.602	.45038	1.809

a. Predictors: (Constant), QSEmpathy

b. Dependent Variable: CSatisfaction

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	96.577	1	96.577	476.117	.000[b]
	Residual	63.489	313	.203		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSEmpathy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.429	.111		12.898	.000
	QSEmpathy	.657	.030	.777	21.820	.000

a. Dependent Variable: CSatisfaction

5.5 Tangibility

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.844[a]	.713	.712	.38323	1.922

a. Predictors: (Constant), QSTangibility

b. Dependent Variable: CSatisfaction

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	114.097	1	114.097	776.868	.000[b]
	Residual	45.969	313	.147		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSTangibility

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.257	.128		2.002	.046
	QSTangibility	.938	.034	.844	27.872	.000

a. Dependent Variable: CSatisfaction

ALL INDEPENDENT VARIABLES

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.904[a]	.818	.815	.30730	1.963

a. Predictors: (Constant), QSTangibility, QSEmpathy, QSReliability, QSAssurance, QSResponsiveness

b. Dependent Variable: CSatisfaction

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	130.886	5	26.177	277.199	.000[b]
	Residual	29.180	309	.094		
	Total	160.066	314			

a. Dependent Variable: CSatisfaction

b. Predictors: (Constant), QSTangibility, QSEmpathy, QSReliability, QSAssurance, QSResponsiveness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.042	.109		-.388	.698
	QSReliability	.290	.046	.264	6.264	.000
	QSResponsiveness	.156	.061	.152	2.539	.012
	QSAssurance	.044	.052	.050	.855	.393
	QSEmpathy	.137	.044	.161	3.082	.002
	QSTangibility	.411	.049	.370	8.417	.000

a. Dependent Variable: CSatisfaction

UNIVERSITI TUNKU ABDUL RAHMAN

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

Re: U/SERC/97/2019

4 July 2019

Ms Jayamalathi a/p Jayabalan
Department of Accountancy
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Ms Jayamalathi,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your research project (Master student's project) and are pleased to inform you that your application has been approved under <u>expedited review</u>.

The details of your research project are as follows:

Research Title	Impact of After Sales Service Characteristics on Customer Satisfaction. A Case of AEON Electrical Appliances
Investigator(s)	Ms Jayamalathi a/p Jayabalan Muraly Ganesh a/l Doraisamy (UTAR Postgraduate Student)
Research Area	Social Sciences
Research Location	Klang Valley
No of Participants	500 participants (Age: 18 - 60)
Research Costs	Self-funded
Approval Validity	4 July 2019 - 3 July 2020

The conduct of this research is subject to the following:

1. The participants' informed consent be obtained prior to the commencement of the research;

2. Confidentiality of participants' personal data must be maintained; and

3. Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

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Should you collect personal data of participants in your study, please have the participants sign the attached Personal Data Protection Statement for your records.

The University wishes you all the best in your research.

Thank you.

Yours sincerely,

Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

1.   Dean, Faculty of Accountancy and Management
       Director, Institute of Postgraduate Studies and
       Research