THE EFFECTS OF SERVICE QUALITY ON CUSTOMERS’ SATISFACTION AND TRUST (TRUST) USING 900 VA ELECTRICAL VOLTAGES IN SURABAYA

Noer Soeratmoko¹, Thomas S. Kaihatu²
Ciputra University Surabaya
INDONESIA

ABSTRACT

This study aims to determine the effects of service quality on the customers’ satisfaction and trust, the effects of satisfaction on customers’ trust using 900 VA in Surabaya, where PLN has made service improvements since 2010. As an explanatory research, this study took place in West Surabaya areas as a part of PLN’s working areas. The population of this research included the customers using 900 VA using postpaid measurement. They were people living in Karangpilang district, Wiyung, Lakar santri, vase. One hundred ten people selected purposively became the respondents of the study. Questionnaires were used to gather the primary data. For data analysis, this study used descriptive analysis, and path analysis of SEM PLS. This study found that the service quality had significant influence on customers’ satisfaction variable where the original sample value was 0.774633 (showing positive value) and t statistics value was 8.254319. Thus, the alternative hypothesis was accepted. This finding was in accordance with previous research results of Suman Mazumder, ABD Rashedul Hasan, (2014), J. Joshua Selvakumar (2015), Rifka Solang, Silvya L Mandey, Olivia S. Nelwan, (2014). They mentioned that the service quality was able to influence customers’ satisfaction service directly. The second hypothesis was that service quality had significant effect on trust variable. The original sample value was 0.531776 indicating positive relation. Meanwhile, t statistic value was 3.365069 so that this hypothesis was accepted. This finding was in accordance with previous research result by Molden Elrado H, Srikandi Kumadji, Edy Yulianto (2014). They found that the service quality was able to influence customers’ trust. The third hypothesis was that the service quality variable significantly influenced customers’ trust mediated by satisfaction variable. The original sample value was 0.208240, this value indicated a positive relationship and the value of t Statistics obtained value was 1.225406 (smaller than t table 1.96). This finding showed insignificant correlation. This hypothesis was rejected and not in accordance with the results of previous research by Molden Elrado H, Srikandi Kumadji, Edy Yulianto (2014): satisfaction affected customers’ trust. This is because the value of satisfaction perceived by the customer was less than the maximum value so that the influence on trust was not significant.

Keywords: Quality of Service, Satisfaction, Trust
INTRODUCTION
In 2009, the government appointed Dahlan Iskan as President Director of PLN (Perusahaan Listrik Negara). This appointment was a momentum that significantly changed the quality of PLN services, ranging from tangible, assurance, responsiveness, empathy, and reliability. The government's courage through Dahlan Iskan to change the quality of PLN service was one of the government's commitments to improve public services. Since then PLN continues to improve the quality of its services.

During the initial conditions around 2009, PLN made various improvements but also encountered a lot of obstacles. The visible portrait at that time was, among others, difficult and long-lasting electric power connection, various grafting costs imposed by the brokers, blackouts in many areas due to engine generator problems, high network disruption rate, and slow service response. These conditions gave negative impacts on the company's reputation in the eyes of customers at the time.

A lot of service improvements have been made since then. In fact, that people favored PLN’s performance is also due to their customers’ satisfaction, many of whom are using 900 VA power. The latter is big in numbers; yet, they have not been properly handled. Another issue is also related to industrial customers or large power businesses that PLN service providers (Executive account) serve an easy access for information and services. If PLN is able to satisfy the needs of 900 VA customers, their sales are likely to increase.

Previous studies gave no information about how PLN has dealt with their customers’ satisfaction, especially those 900 VA subscribers, and how their trust affected PLN’s service. Based on these rationales, the research problem is formulated as follows:

1. Does service quality significantly influence the service satisfaction?
2. Does service quality significantly influence the trust (trust)?
3. Does satisfaction significantly influence the trust (trust)?

LITERATURE REVIEW
Quality of service
In an increasingly competitive global competitive situation, the product quality issue is of concern to every company. The ability of the company to provide quality products will be the capital to win the competition. Providing quality products makes customers’ satisfaction achievable. Quality of service (Service Quality) as said by According Parasuraman, A., Valarie A Zeithmal, & Leonard L Berry, as written by Hardiyansyah (2011) can be defined as "How far it is the difference between reality and consumers’ expectations for the service they receive/earn." Meanwhile, according to Rangkuti (2004) in his book "quality of service is defined as the delivery of services that exceed the level of consumers' interest ". These definitions emphasize the advantages of the level of consumers’ interest as the core of service quality. One of the service quality models that many refer to in marketing research is the ServQual (Service Quality) model developed by Parasuraman, Zeithaml, and Berry as quoted by Lopiyoadi (2001).

SERVQUAL is an empirically derived method that can be used by service organizations to improve service quality. This method quotes the development of the perceived needs of the customer. This is measured from the perception of service quality for the organization concerned, and then compared to an excellent organization. The resulting gap analysis can then be used as a guide to improve service quality.

The concept of service quality is a valuation factor reflecting consumers’ perceptions of the five specific dimensions of service performance. According to Parasuraman, A., Valarie A Zeithmal, & Leonard L Berry, (2011) in Hardiyansyah that there are five dimensions ServQual (Service Quality) used to measure the quality of service:
1. Tangibles, or physical evidence
It refers to the ability of the company to provide physical facilities such as buildings, equipment, equipment or supporting facilities and appearance of its employees.

2. Reliability, or reliability
It refers to the ability of the company to accurately and consistently provide services in accordance with their promises. In this dimension, service providers are required to provide reliable products/services. In other words, the product/service is always good. In addition, the service provider must keep promises to the customer.

3. Responsiveness or responsiveness
It refers to willingness to provide prompt and responsive service to the customers. This can be done through delivering clear information about the products and services and other information required by the customer.

4. Assurance, Guarantees and certainty are related to knowledge and ability of employees in a company to cultivate the trust of customers towards the company. Employees are required to appear more competent, meaning they have knowledge and expertise in their respective fields. They have to be able to provide a sense of security and assurance to the customers. Providing professional service and high competence makes customers feel safe.

5. Emphaty,
It refers to giving a sincere and personalized attention to customers. This can be done through trying to understand the wants and needs of consumers.

Service Satisfaction
Customers’ satisfaction has become a central concept in business and management discourse. Customers become the main focus in the discussion of the satisfaction and quality of services. Therefore, the customer plays an important role in measuring the satisfaction of the products and services provided by the company. Philip Kotler (2017) in Marketing Management twelfth edition defines customer satisfaction: feelings of pleasure or disappointment of someone who emerges after comparing the performance of a thought product to the desired performance (or outcome).

Such a definition can be deduced that customers’ satisfaction is reviewed and the customer side is about what customers have perceived the services compared with what they want. Rangkuti (2004) mentioned, "That is what is meant by consumer satisfaction is the difference between the level of importance and performance or perceived results". According to Parasuraman, Zeithaml and Berry (2001), consumer relationships with firms are strengthened when consumers get adequate results on service quality. Yet, they become weak when consumers get negative results about service quality. Quality of service will lead to an increasing tendency to make purchases. Service quality is positively related to the tendency to repeat purchase, the tendency to recommend products or services, loyalty and profitability. In conclusion, the quality of service can increase the possibilities of repeated purchases.

According Fandy Tjiptono (2012) in Service Management realize Prima service, service satisfaction consist of the following indicators:

1) Conformity expectations (psychological perspective)
It is a level of conformity between product performance expected by the customer and perceived by the customer, including:
• Products obtained are appropriate, exceed or less than expected.
• Services by employees earned in accordance with or exceeding or less than expected.
• Supporting facilities gained as or above or less than expected.

2) Conformity received with what has been paid by the customer (economic perspective)

3) Customers are satisfied
Trust (Trust)
In a business, one of the important elements that affect success is related to customers’ trust (Trust) towards products or services. Understanding Trust (Trust) According Sumarwan (2013) in Etta Mamang Sangadji, Sopiah, and trust denotes that a product has certain attributes. Trust is often called the attribution of the objects (object attribute linkage): consumers’ confidence about the possibility of a relationship between an object with relevant attributes. Mowen and Minor (2013) in Etta Mamang Sangadji, Sopiah, define consumer trust as science possessed by consumers and all conclusions made by consumers about the object, its attributes and its benefits. Objects can be products, people, companies, and everything to which people have trust and attitude. The attributes deal with the characteristics or features that objects have. Attributes are two kinds of intrinsic attributes are all things related to the actual nature of the product. Meanwhile, the extrinsic attribute is everything obtained from all aspects of external products such as brand names, packaging, and labels. The benefits are positive results given attributes to consumers.

Trust is strength of the knowledge possessed by the consumer and all conclusions made by the consumer that the product has objects, attributes, and benefits. Someone formed three types of trust objects, among others:

i. Trust Object attribute (object attribute belief)
   Knowledge that an object has a special attribute called a trust object attribute.

ii. Trust attribute benefits
   This belief is the consumer's perception about the extent to which certain attributes produce or provide certain benefits. Someone searches for products and services that will solve problems and will meet their needs. In other words, they are related to the beneficial attribute people are able to recognize.

iii. Trust Object benefits
   The trust of beneficial objects is the consumer's perception of how far a certain product, person, or service will provide certain benefits.

According to Moorman (2010) in Panca Winahyuningsih the trust indicators are as follows.

a. Trust in service officers
b. Trust in the company's service facility
c. Trust in the company

THE ANALYSIS MODEL
In this study there are 5 independent variables: Reliable (X1.1), Responsiveness (X1.2), Assurance (X1.3), Empathy (X1.4), Tangible (X1.5) and Customer Satisfaction (Y1) mediator, and Trust (Y2). Some hypothesis will be further tested. The analysis model is as follows.
Hypothesis
From Figure 3.2 it appears that research, can be formulated hypothesis as follows:
H1: Quality of Service has a significant effect on Satisfaction
H2: Quality of Service has a significant effect on Trust
H3: Satisfaction has a significant effect on Trust

RESEARCH METHODS
The research approach used is quantitative research approach using questionnaire. It aims to examine the relationship between five free variables (5) SERQUAL dimension such as reliability, responsiveness, assurance, empathy, and tangibility. The dependent variable consists of trust, with satisfaction as a mediating variable.
This study took place in Karangpilang district, kec Lakar santri, Wiyung sub district, Pagesangan. This study focused on the customer using 900 VA. The research siteas were selected due to the following considerations:
1. Service level Agreement or service standard established for all regions is relatively the same from one to another area.
2. They are selected due to ease search for data collection. In fact, the writer is serving in PLN areas.
The study lasted for 3 months, starting from July to September 2017. This study started from the preparation of the proposal, testing the proposal, data collection, data fireplace, and data analysis.
The research samples were 900 VA power customers who lived in three sub-districts such as Karangpilang, Kec Lakar santri, and Wiyung district.
Sample method used was purposive sampling technique. This technique was selected because the population was very big. The samples were drawn due to the following criteria:
• They have become customers since 2010 or earlier
• 900 VA power subscribers have used postpaid meters
According to Roscoe in Sugiyono (2013) a good sample size in the study was between 30 and 500. By considering numbers of indicators and variables, this study employed the following sampling technique: the minimum number of samples of 11 multiplied by 5 (50 samples of customers) and a maximum of 11 multiplied by 10 (110 customer samples).
For data processing device, this study used SEM PLS. SEM was a combination of two separate statistical methods i.e., factor analysis and simultaneous equations model. In SEM analysis, variables were differentiated into:

1) Latent variable, is a variable that cannot be measured directly unless measured by one or more manifest variables. The latent variable is also called the term unobserved variable, construct or latent construct. The latent variable is given a circle or ellipse symbol. Latent variables can be classified into two as follows.
   a) Exogenous latent variable, is an independent variable (independent) that affects the dependent variable (bound). In this study the exogenous latent variable is the Quality of Service variable (X1)
   b) Endogenous latent variable, is a dependent variable that is influenced by independent variables. In this study the endogenous latent variable is satisfaction (Y1) and trust (Y2).

2) Manifest variables Variable manifests are variables used to describe or measure latent variables. Manifest variables can also be referred to as the observed variable, measured variable or indicator, as it is criticized on the indicator of Service Quality that is Reliability, Responsiveness, Assurance, Empathy, Tangible, and Satisfaction and Trust as discussed earlier.

RESEARCH ANALYSIS OF RESEARCH
In this study the object of research is the Customer Power PLN 900 VA Pasaca paid in karangpilang, wiyung, Lakar santri. The number of Respondents in the sampling numbered 110 customers.

Results of PLS Analysis
In Smart PLS there are two models in PLS analysis tool: outer model and inner model. The evaluation of each model is further elaborated in accordance with the results of existing calculations.

Measurement Model (Outer Model)
a. Convergent Validity
   According to Chin (1998) in Ghozali (2014), individual reflective sizes are said to be high if they correlate more than 0.70 with the constructs to measure. Nevertheless, for the initial stage of development, the loading values of 0.5 to 0.6 is considered sufficient.
   Based on the outer loading for Quality of Service variables, it is known that all Quality Service indicators have outer loading greater than 0.5. With regard to Service Satisfaction variables, all Satisfaction indicator Services have outer loading greater than 0.5. Outer trust loading also is above 0.5 or 0.9. Thus, it is concluded that these indicators meet the convergent validity.

   Discriminant Validity
   a. Cross Loading
      Testing is done by comparing the loading factor of the indicator on the latent variable with the same indicator loading factor with other latent variables. The test uses crossload value of SMART PLS application calculation results. The correlation between the indicators to the construct must be greater than the correlation value between the indicator and the other construct.
      b. Comparing the square root of average variance extracted (AVE) value of each construct with the correlation between the construct and the other constructs in the model. Fornell and Larcker (1981) in Ghozali (2014) recommend the use of AVE for a criterion in assessing convergent validity, a minimum AVE value of 0.5 indicates a good convergent validity measure.
The AVE root in the trust construct is 0.887298, with the latent variable correlation value of 0.693086, and the AVE value greater than 0.5. As a result, the trust construct satisfies the discriminant validity.

Composite Reliability, and Cronbach Alpha
This value reflects the reliability of all indicators in the model. The minimum value of 0.7 is ideally 0.8 or 0.9. In addition to Cronbach's Alpha used also the value of (composite reliability) which represents the same as the value of Cronbach Alpha. Thus, the model in this study has fulfilled composite reliability because the value is above 0.7.

Inner Model
The inner model is based on data processing with PLS, the coefficient of determination (R-square). R-square for Service Satisfaction variable R-square value is of 0.600057. This means Service Satisfaction is affected by Service Quality of 60.0057% or with category (moderate high). The rest is influenced by other variables. The Customer Confidence R-square value is 0.497711 with the category (moderate high). This means the trust in the company is affected by the quality of service and service satisfaction of 49.7711%.

Goodness of fit in PLS is known from the value of Q2. The value of Q2 has the same meaning as the coefficient of determination (R-square / R2) in the regression analysis. Such R2 value indicates that the model fits with the data.

Ghozali (2014) revealed that values above zero provide evidence that the model has predictive relevance (below zero indicates the model lacks predictive relevance.) The Q value indicates that (1-SSE / SSO) the Q value for all variables is greater than zero. This means that there is a predictive relevance for each variable.

Hypothesis testing
Hypothesis 1
The first hypothesis states that Quality of service significantly influences Satisfaction. The results of Structural Model in PLS show that there is a positive relationship and significant effect between two variables. The original sample value is 0.774633 where this value indicates a positive relationship. T statistics value is of 8.254319, and this indicates that the quality of service has a significant effect on Customer Satisfaction. It is because the t statistics is greater than the value t Table (1.96). This indicates that the customer acknowledges that PLN has made service improvements and impacts on customers’ satisfaction. The better (the more positive) the service improvements are likely to give high value of satisfaction.

Hypothesis 2
Structural Model Results in PLS states that there is a positive relationship and significant effect between two variables. The original sample value is 0.531776 where this value indicates a positive relationship. This shows that the customers have seen a lot of improvements made by PLN in providing good professional services. The more efforts they provide the more likely the customer trust in PLN service. The value of t statistics is of 3.365069. This indicates that the quality of service significantly gives effect on Customer Trust. It is because the value of t statistics is greater than the value t Table (1.96).

Hypothesis 3
Structural Model Results in PLS states that there is a positive relationship but no significant effect between the two variables. The original sample value is 0.208240, where this value indicates a positive relationship which means that the higher satisfaction is perceived by the customer the higher the trust owned by the customer to PLN. At the value of t statistics
obtained value of 1.225406, it shows that Satisfaction is not have a significant effect on the Customer's Trust because the t value of Statistics is smaller than the value of T Table (1.96).

Hypothesis Testing on Measurement Model (Outer model)
If the value is greater than t table (1.96, for 1- = 5%) then it is concluded that the indicator is a measure of latent variables. Conversely if to smaller to t table (1.96) then the indicator is not a measure of latent variables. From the result of the data, that t statistic for outer model all indicator on all variables is bigger than t (1.96). In short, all indicators are said to be measuring each variable.

Path T Statistik Diagram

Figure 2. Path T Statistics Diagram
Source: Appendix

The Influence of Mediating Variables
The quality of service has a direct influence on the trust variable of 0.693086. The indirect influence of service quality variable on trust through mediating variable equals to 0.161309. While the indirect influence is smaller than direct influence, indirect influence is not significant.

Service Quality Influence on Service Satisfaction
The first hypothesis in this research is accepted. The results of this study are in accordance with previous research by Suman Mazumder, and ABM Rashedul Hasan, (2014), J. Joshua Selvakumar (2015), Rifka Solang, Silvia L Mandey, Olivia S. Nelwan, (2014), customer satisfaction regarding the services provided by PLN. While t value is more than 1.96 that is 8.254319, it indicates that PLN’s service quality for its consumer is able to create customers’ satisfaction. The high quality of services PLN has provided have impacts on customers’ satisfaction.

Service Quality Influence on Customer Trust
Based on the results of data analysis, it is known that the second hypothesis in this research is accepted. The results of this study are in accordance with the results of previous research belonging to Molden Elrado H, Srika ndi Kumadji, Edy Yulianto (2014), that Quality of Service is able to influence Customer Confidence. When viewed from the original value of samples marked positive that is 0.531776 and the value of t statistics greater than 1.96 ie 3.365069.

This valuation by customer is based on the comparison of services provided by PLN in the past (before 2009) with the current condition.
According to Mowen and Minor in Etta Mamang Sangadji, Sopiah (2013) consumer trust is related to customers’ knowledge and conclusions about the object, its attributes and its benefits. Someone formed three types of trust objects, among others:

a. Trust Object attribute (object attribute belief)

Knowledge that an object has a special attribute is called a trust object attribute. The object of electricity service provided by PLN West Surabaya has good attribute object so as to form trust for the customer.

b. Trust attribute benefits

This belief is the consumer's perception of the extent to which certain attributes produce or provide certain benefits. Electrical services provided with reliability or high reliability provide benefits for customers to meet their needs.

c. Trust Object benefits

The trust of beneficial objects is the consumer's perception about how far a certain product, person, or service provides certain benefits.

Discussion on Service Satisfaction against Customer Trust

Based on the results of data analysis, it is known that the third hypothesis in this study is rejected. On other words, satisfaction Service does not directly affect customer trust. The results of this study contradict the results of previous research belonging to Molden Elrado H, Sri Kandi Kumadi, Edy Yulianto (2014). They say that Service Satisfaction is able to influence the Customer Trust directly. There are several things that are expected to influence the results of the third hypothesis so that this hypothesis is rejected:

1. The study examined the effect of Service Satisfaction on Customer Confidence by focusing on the specific segmentation of PLN that is the 900 VA power customer using postpaid meter. Low voltage customers who become respondents in this study would also want to get good service also from PLN with what has been paid customers so that customers are satisfied with the service of PLN. In addition, customers believe with PLN Company which is currently the only state-owned electricity service provider.

2. In the object of this study factors that may affect the Service Satisfaction is not able to influence the Customer Trust is due to monopolistic competition system undertaken by PLN so that customers do not have a comparison of performance appraisal services. So the customer does not have spectrum assessment (level of assessment) based on experience ever felt to be compared to the service of PLN. This is seen in the analysis of R-square determination that the variable of Service Satisfaction of R-square value of 0.600057, which means Service Satisfaction is affected by Service Quality of 60.0057% and the rest is influenced by other variables that have not been studied in this research.

3. Hypothesis 3 shows positive relationship between satisfactions with trust. This means that the increase in value of satisfaction affects the increase in the value of customer confidence in PLN. The high satisfaction value will increase the value (significance) belief.

CONCLUSIONS AND SUGGESTIONS

Conclusions

1. The first hypothesis of this study is the Quality of Service influence on service satisfaction. This hypothesis is accepted and in accordance with previous research results of Suman Mazumder, and ABM Rashedul Hasan, (2014), J. Joshua Selvakumar (2015), Rifka Solang, Silvya S. Mandy, Olivia S. Nelwan, (2014), that service quality is capable directly affect service satisfaction.

2. The second hypothesis of this study is the quality of service influence on customer trust. This hypothesis is accepted that the quality of service is able to influence customer trust.
3. The third hypothesis of this study is the satisfaction effect on customer trust. This hypothesis is rejected that satisfaction can affect customer trust. This is because the value of satisfaction perceived by the customer is not optimal so that the influence on trust is not significant.

**Suggestion**

Based on the conclusions of the research, the suggested suggestions are as follows:

**Suggestions for Further Research.** Based on the limitations contained in this study, there are several suggestions that can be applied in future research that is as follows:

1. This research is limited to the observer of a variable that influences the customer trust variable and customer satisfaction is the service quality variable, for future research should observe other variables that can influence the customer trust and customer satisfaction.

2. This research is also limited to PT PLN (Persero) power of 900 VA using postpaid meter only, for future research should observe various other segments so that generalization of research result can be obtained well.

3. This study is also limited to geographic sample selection located in West Surabaya service area only, subsequent research to research in a wider area.

**Implications for Managerial**

Based on the findings that the quality of service is a factor peting in forming customer satisfaction and creation of trust then PT PLN (Persero) need to pay attention to the quality of services that can be given. The quality of the service includes the reliability of the power delivered in the service, the speed in responding to customer requests, the provision of warranties to consumers, special attention to customers and the ease and convenience of a service. These factors can help guide PT. PLN (Persero) in an effort to provide excellent service to customers, especially low voltage customers at home.

The second finding that the quality of service performance is responsive (time response to complaint) is still lacking, and payment system through online bank is not safe. This needs improvement to improve the value of customer satisfaction.

**Implications for Academics**

The satisfaction of a given company is not able to affect consumers’ confidence about the company. Thus, it is necessary to dig deeper relationship related customer satisfaction so as to influence customer trust.

**Limitations of Research**

Based on the results of research there are some limitations of the research encountered are:

1. This study is limited to observations of variables that affect customers’ satisfaction variables and customers’ trust that is the quality of service variables

2. This research is also limited to the characteristics of respondents who focused only on small voltage customers with 900 VA power, while PLN has a customer base spread across various segments.

3. This research is also limited to the selection of geographical samples located in Surabaya City, especially in the area of western Surabaya only, while PLN has service areas throughout Indonesia.
REFERENCES
Hardyansyah (2011), Kualitas Pelayanan Publik Konsep, Dimensi, Indikator dan Implementasinya, Yogyakarta, Gava Media
Molden Elrado, H Srikandi Kumadji, Edy Yulianto (2014). Pengaruh Kualitas Pelayanan Terhadap Kepuasan, Kepercayaan dan Loyalitas (Survei pada Pelanggan yang Menginap di Jambuluwuk Batu Resort Kota Batu), Malang, Universitas Brawijaya