Journal of Economics, Business, and Accountancy Ventura Volume 15, No. 3, December 2012, pages 423 – 442
Accreditation No. 80/DIKTI/Kep/2012

INCREASING THE SERVICE QUALITY FOR CUSTOMER SATISFACTION

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ABSTRACT

Business competition is unavoidable nowadays, whether it is either product or service, it has always its own strategy to win. In this condition, service is the most important factor that should be built and delivered to the customers. For that reason, service has to be qualified. This is due to the fact that with qualified service, the customers will also be satisfied and then they will not the business. A qualified service is marked by the number of consumers who were satisfied totally with the service. So, every business must focus on it. PT. TIKI Branch of Kedung Sari Surabaya was the object of the research because service quality was critical. Theoretically, there are five dimensions of service quality such as assurance, tangibles, reliability, responsiveness, and empathy that may influence customer satisfaction. The objective of this study was, to determine the effect of service quality to customer satisfaction. Structural Equation Modeling (SEM) was used to analyze the primer and secondary data during the research. With the probability of $\geq$ 0.10, it was found that assurance dimension could establish unidimensionality of service quality, while tangibles, reliability, responsiveness, and empathy dimensions could not. Therefore, it could be concluded that assurance was the prominent factor that caused customers satisfaction.

Key words: *Service Quality, Customer Satisfaction, Tangibles, Reliability, Responsiveness, and Empathy.*

PENINGKATAN KUALITAS LAYANAN UNTUK KEPUASAN PELANGGAN

ABSTRAK

Persaingan bisnis saat ini tidak dapat dihindari, apakah dalam bentuk produk atau jasa, maka bisnis tersebut selalu memiliki strategi sendiri untuk menang. Dalam kondisi ini, pelayanan adalah faktor yang paling penting yang harus dibangun dan diberikan kepada pelanggan. Oleh sebab itu, layanan harus berkualitas. Dengan layanan yang berkualitas, pelanggan juga akan puas dan kemudian mereka tidak akan meninggalkan perusahaan tersebut.. Layanan berkualitas ditandai dengan jumlah konsumen yang puas dengan layanan. PT. TIKI Cabang Kedung Sari Surabaya adalah objek penelitian karena kualitas pelayanan sangat penting. Secara teoritis, ada lima dimensi kualitas pelayanan seperti jaminan, tangibles, reliability, responsiveness, dan empati yang dapat mempengaruhi kepuasan pelanggan. Penelitian ini bertujuan untuk mengetahui pengaruh kualitas pelayanan terhadap kepuasan pelanggan. Model persamaan structural (SEM) digunakan untuk menganalisis data primer dan sekunder. Dengan tingkat probabilitas $\geq$ 0,10, ditemukan bahwa dimensi jaminan bisa membangun unidimensionality kualitas pelayanan, sedangkan dimensi tangibles, reliabilitas, responsiveness, dan empati tidak. Oleh karena itu, dapat disimpulkan bahwa penjaminan mutu adalah faktor dominan yang menyebabkan kepuasan pelanggan.

Kata Kunci: *Kualitas Layanan, Kepuasan Pelanggan, Tangibles, Reliabilitas, Responsiveness, dan Empati.*

INTRODUCTION

Nowadays, the utilization of technology has spurred the competition in the world and put the professionalism in all areas of business specialization in the highest rank. In practice, such utilization tends to rely on others who are considered professionals in certain fields than in spending time to take care of everything about the areas that are not under their control. In keeping with this trend, the leadership and management of TIKI are trying to achieve business specialization in the field of cargo and logistics in a professional manner in accordance with the times today that require a consistent business partner and has excellent service and be competitive, especially in this globalization era.

PT. Titipan Kilat abbreviated as TIKI is the courier company which was founded in 1970 that has tried to create other specialized fields in the form of business entity that is expected to answer the challenges of the business world, namely in the areas of logistics and distribution as well as in cargo agents. As such, it is established the business entity engaged the transportation logistics and cargo service, PT. TIKI INDONESIA abbreviated as TIKINDO. Processing of logistics and cargo services in a professional service requires special handling by specialized experts, with considering that the risk inherent in the more complex operations and also related to other parties in the concerning of handling of business activities from the beginning to the end.

Thus, a company engaged in logistics services and cargo service of PT. TIKINDO is supposedly to be able to conduct its operations and gained the trust of the relationship and has extensive relationships with airlines, ships, land transportations and governmental agencies related to the business of TIKINDO. To provide quality services to the customers, management of PT. TIKI always strive to provide quality services and in accordance with the wishes of the people so it is attracted the attention of customers and strengthen the power of employees of PT. TIKI especially the service customers, especially on the appearance and skills of PT. TIKI.

The impact that can be seen by the lack of good quality service is that the customer will move to other delivery services, if other delivery services can provide a service for which the customer desires. So that good service will generate a good response too. However, poor service customers will spend the breath of patience.

Satisfaction is a dynamic process and should always be monitored regularly by a manufacturing or service company. Because, basically, the satisfaction which produces profit or revenue to the company. Satisfaction can be changed, this is because the higher the expectations or hopes, that requires a higher quality. Increased levels of competition especially in the areas of communications, including advertising and promotional activities and promises of information received by the customer is ultimately raise customer expectations.

As argued above, this research will focus on “how the dimensions of service quality such as Tangibles, Reliability, Responsiveness, Assurance and Empathy establish the service quality?”

THEORETICAL FRAMEWORK AND HYPOTHESIS

Definition of Marketing

Marketing was arising because of the diverse and infinite in human needs, which is one of the main activities undertaken by the company. Marketing has enabled all of them take place, because marketing itself is a study of the exchange process that is how the transaction began, motivated and consumed. However, the goal of marketing is to understand about the wants and the needs of consumers for products or services which can they sold. Thus, marketing activities should be oriented to give satisfaction to the consumer.

The definition of marketing, according to Kotler (1997: 8) is a social process in which individuals and groups obtain what they need and want by creating, offering and exchanging products of value with others.

According to Sumarni (1996: 5) Marketing is human activity directed at satisfying needs and wants through exchange processes.

Definition of Services

Some authors express the definition of services as follows: as quoted by Alma (2004: 243), Stanton (1981: 529) *Services are those separately identifiable, essentially, intangible activities that provide want-satisfaction, and that are not necessarily need to the sale of a product or another service. To produce a service may or may not require the use tangible goods. However, when such use is required, there, is no transfer of the title (permanent ownership) to these tangible goods*. This means that service is something that can be separately identified intangible assets, offered to meet the needs. Services can be generated by using tangible objects or not.

According to Tjiptono (2002: 23), services are activities, benefits or satisfaction offered for sale. Examples: workshop, courses, educational institutions, telecommunications, transportation, and others. Formulated by Kotler et al. (1996) cited by Tjiptono (2002: 23) defines a service as any act or actions that may be offered by one party to another that is essentially intangible (not a physical shape) and did not result in ownership of something. Production may result in any ownership.

One of the main ways to define a service company is providing services of higher quality than competitors consistently. The key is to meet customer expectations of service quality targets. Customer expectations are formed by the experience of past actions or discussions of mouth to mouth and ads of services companies or they are comparing the experienced services with the expected services when the services that they experienced were not approximating to the expected, then, customers will not repeat the use of the services again.

The first impression in obtaining services is to greatly to see whether the customer will use the services again or not.

Factors that affect service qualities:

Reliability : the ability to perform the promised services with confidence and accuracy.
Responsiveness : the ability to help customers and provide service quickly.
Certainty : knowledge and courtesy of employees and their ability to create trust and confidence.
Empathy : willingness to care, giving personal attention to customers.
Intangibles : appearance, physical facilities, equipment, personnel and communication materials.

Service Quality

Improving the quality of the service industry is a major goal in general, so the quality strategy must be translated into a real program in the organization. Formulated by Garvin & Davis (1994), quoted by Ross (2004: 41) states that quality is a dynamic state associated with products, people / workforce, processes and tasks, and environments that meet or exceed the expectations of customers or consumers.

Service quality in the definition is not always appropriate to be used by various companies. Thus, many service companies that define quality based on objective, fact and there are many companies that combined best aspects of existing definitions and then formulate its own definition. According Wyckof in Lovelock, (1998), quoted by Ross (2004: 47), service quality is the expected level of excellence and control over the level of excellence to meet customer needs. According to Tjiptono (2000: 59) that service qualities are centered on efforts to meet the needs and desires of customers and delivery accuracy to offset the customer's expectations.

Kotler (1997: 49) defines quality as whole characteristics and the nature of a product or service that affects its ability to

satisfy stated or implied.

From the definition above it can be concluded that service quality to be started from the customer needs and ends at the customer's perception. This means that the image quality is good is not based on the point of view or perception of the party providing the service, but based on the perception or the customer's perspective. The customers who enjoy the consumption of services and enjoy the company, so that they are who determine service qualities.

Parasuraman, Zeithaml and Berry have done specific research on several types of services and have identified 10 major factors that determine service qualities. 10 factors include Parasuraman et al. (1985):

a. Reliability includes two main things, which are consistent work and the ability to be trusted (dependability). This means that the company provides its services properly since the first time. In addition, it is means that the company was fulfilling their promise, for example, deliver services in accordance with the schedule.
b. Responsiveness is the willingness or the preparation of employees to deliver services that customers need.
c. Competence means everyone in the company has the skills and knowledge that needed in order to provide certain services.
d. Access, including ease of contact and encounter. This means that the location of service facilities within easy reach, the wait is not too long, communication channels, the company easily accessible and others.
e. Courtesy, polite nesses include, respect, caring, and friendly personnel who had contact (such as receptionists and telephone operators, etc.).
f. Communication means to provide information to customers in language they can understand, and always listen to suggestions and complaints.
g. Credibility is honest and trustworthy nature. Credibility includes the name and company reputation, personal characteristics, personnel contact and interaction with customers.
h. Security is safe from danger, risk or doubt. These aspects include physical security, security and confidentiality financially.
i. Understanding / knowing the customer is the effort to understand customer needs.
j. Tangibles are the physical evidence of service, can include physical facilities, equipment used, and the physical representation of the services (such as a plastic credit card). (Nasution 2004: 55-56).

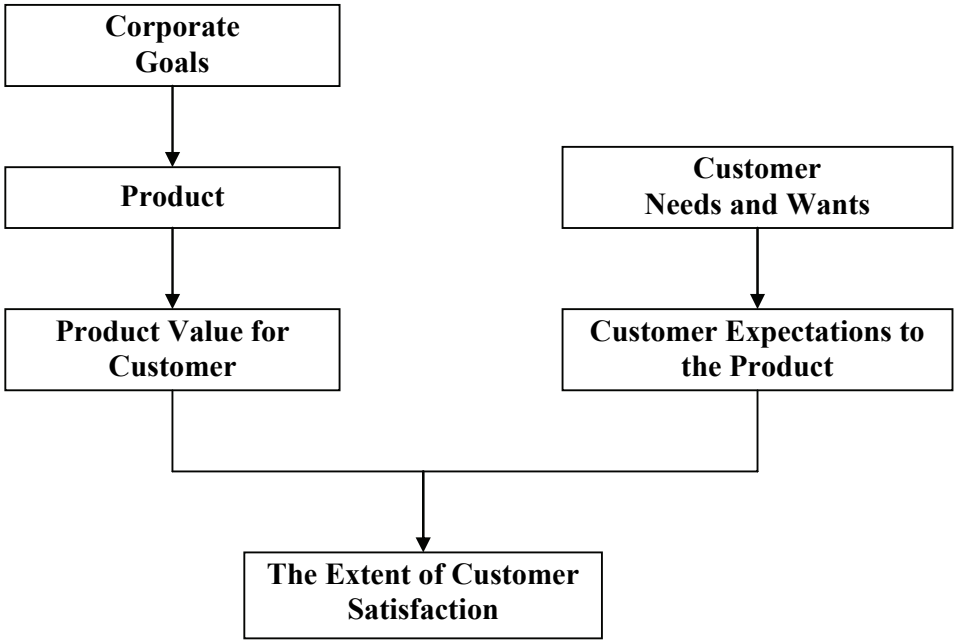
Customer Satisfaction

Today many people are paying attention to customer satisfaction. More and more manufacturers are engaged in fulfilling the needs and desires of consumers caused each company to put orientation on customer satisfaction as a primary goal. At this time, it is very important for us to understand consumers and how consumers choose between alternative services offered and how they evaluate the service after they receive the service.

For many experts who provide a definition of customer satisfaction. Day in Tse and Wilton, (1988), quoted by Ross (2004: 104) states that customer satisfaction or dissatisfaction is the customer response to the evaluation of discrepancies/confirmed that advised the previous expectation (or other performance norms) and the actual performance of a product that is felt after its use. Engel et al. (1990), quoted by Ross (2004: 104) reveals that customer satisfaction is an evaluation of the buyer, where the alternative is chosen at least give the results (outcomes) equal or exceed customer expectations, while dissatisfaction arises when the results obtained not meet customer expectations. The marketing expert Kotler (1994), quoted by Ross (2004: 104) pointed out that customer satisfaction is the level of one's feelings after comparing the performance / results he felt compared to his expectations.

There are similarities among some of the definitions above that is related to the components of customer satisfaction (expecta-

Figure 1
The Concept of Customer Satisfaction



Sources: Tjiptono, Fandy (1995), Marketing Strategy. London: publisher Andi Offset, p 28, quoted by Ross (2004: 104).

tions and performance / outcome is perceived). Generally, customer expectations are the estimates or beliefs about what the customer would receive if he buy or consume a product (goods or services). While the perceived performance is the customer perception of what he received after consuming the product purchased. Conceptually, customer satisfaction can be described in Figure 1.

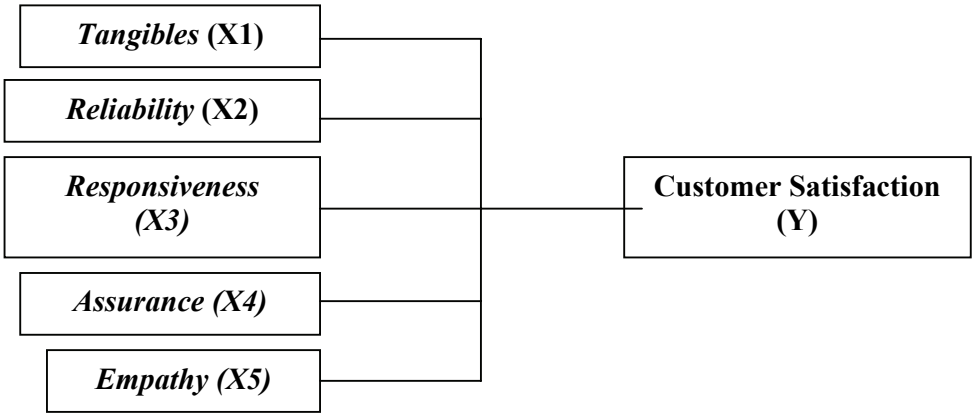
Tjiptono (1997: 26) also states that in evaluating the satisfaction of a particular firm, the determinants that are used can be any combination of the determinants of satisfaction with the products and services. Generally, consumers are frequently used aspects of the service and quality goods and services purchased.

Effect of Service Quality to Customer Satisfaction

The service quality as the level of corporate excellence in customer service is an important factor in a service company. PT. TIKI as one of the company's services should be able to provide services in accordance with what was expected by the customer. Customer will provide a response/feedback on the different services provided by PT. TIKI. Customers will be satisfied if PT. TIKI was able to meet their expectations by providing the appropriate level of service. Instead, the customer will be dissatisfied if PT. TIKI was unable to meet their expectations. So the level of satisfaction can only be felt and measured when one becomes a customer of PT. TIKI after several years. Based on the experience of being a customer of PT. TIKI, one can measure the extent of satisfaction that was obtained on service quality by PT. TIKI.

According to Tjiptono (1997: 26) states that in evaluating the satisfaction of a particular firm, the determinants of consumer uses are the aspect of service and quality goods and services that purchased. While Gerson (2004: 11) states if a company providing quality and good service, then customer satisfaction will follow. Tjiptono cited by Parasuraman (1997: 26) states in evaluating the services that are intangible, customers generally use some of the attributes are

Figure 2
Conceptual Framework



the following factors: Tangible, Reliability, Responsiveness, Assurance, and Empathy.

With the good service quality, it will create an extent of customer satisfaction. High satisfaction will create an emotional attachment to PT. TIKI, not just a rational preference, and the result is high customer loyalty.

Hypothesis

Based on this background, definition of the problem, objectives of the research and the basic theory, the hypothesis can be formulated as follows:

Service quality in PT. TIKI Branch of Kedung Sari Surabaya was formed by the dimensions of tangibles, reliability, responsiveness, assurance, and empathy.

There are the effects of service quality to customer satisfaction on PT. TIKI Branch of Kedung Sari Surabaya.

RESEARCH METHOD

The research was conducted through a quantitative approach using a model to analyze the data in this study is Structural Equation Modeling (SEM). The measurement model of tangibles, reliability, responsiveness, assurance, empathy, service quality, and consumer satisfaction factors are using Confirmatory Factor analysis. On the other side to get the research conceptual framework, it is drafted in Figure 2.

Population and Samples

Population is a set of individuals or elements that have the same traits or characteristics and the object or aims in this study were customers in PT. TIKI Branch of Ceding Sari Surabaya.

The sampling procedure used to obtain the respondents are non-probability sampling with a type of purposive sampling, a technique in which the determination of the sample based on the considerations of the criteria or specific traits that will be sampled, namely:

a. All customers of PT. TIKI Branch of Kedung Sari Surabaya available during sampling conducted by researchers.

b. Customers who are considered adults and understand what is meant by researchers with the age limit of 17-55 years.

Attributes that are used include 18 attributes and because of time constraints become an obstacle, then the research the sample were taken or the number of respondents who are considered representative of the population totaled 100 peoples from the number of attributes Ferdinand, (2002: 48).

Research Variables and Operational Definitions

Variables observed in this study consisted of several variables. These variables are as follows:

Service Quality

Is the expected level of excellence and con-

trol over the level of excellence to meet customer desires (Nasution 2004: 47). It includes five dimensions of service quality, namely tangibles, reliability responsiveness, assurance, and empathy. Service quality factors are measured through questionnaires submitted directly to the customer for the variables that are described as follows:

Tangibles

Is the ability to provide physical facilities, equipment and means of communication staff (Nasution 2004: 56-57)? Includes some indicators (Didit Hendratno and Darmawan D 2004), namely:

A lot of amount of cashiers (X1.1).

Parking is free and safe as guarded (X1.2).

There is a TV/music and air-conditioned room (X1.3).

Reliability

It is the ability to deliver the promised services promptly and satisfactorily (Nasution 2004: 56-57). Includes some indicators (Didit Hendratno and Darmawan D 2004), namely:

The ability of PT. TIKI Branch of Kedung Sari Surabaya to deliver promised services in accordance with appropriate, accurate and trusted (X2.1).

The procedure is not beating around bush settlement (X2.2).

Information is accurate and satisfactory customer service (X2.3).

Responsiveness

Is the desire of staff to assist customers and provide responsive service with (Nasution 2004: 56-57). Includes some indicators (Didit Hendratno and Darmawan D 2004), namely:

Response to face the problems that arise (X3.1).

Skills in favor of time to complete the transaction (X3.2).

The flexibility of the service / working hours (X3.3).

Assurance

Is the ability, courtesy and trustworthiness of the staff, free from danger, risk or doubt (Nasution 2004: 56-57). Includes some indicators (Didit Hendratmo and Darmawan D 2004), namely:

Accuracy cashier customer service will give customers a sense of security when making transactions (X4.1).

Friendliness of employees (X4.2.)

The image of PT. TIKI in public seeing is good (X4.3).

Empathy

Is the ease in the relationship, good communication, and understanding the needs of their customers (Nasution 2004: 56-57). Includes some indicators (Didit Darmawan and Hendratno D 2004), namely:

The ability of employees to understand customer needs (X5.1).

The ability to communicate directly / via phone (X5.2).

Each patient Employees serve customers (X5.3).

Customer Satisfaction

Is the level of one's feelings after comparing performance (or outcome) that he felt compared to his expectations (Nasution 2004: 104). It includes some indicators Arief, Wahyudi, Woro, Astuti and Mawardi (2002), namely:

Be the first choice of many options that exist (Y1).

The whole of service quality (Y2).

Customer expectations are met (Y3). (Suryanto, Sugiyanto, and Sugiarti 2002).

The variables in this study are an interval scale of measurement techniques using the techniques and Semantic Differential Scale.

The form is as follows:

1	5
Bad…….....	Good

Research Limitations and Assumptions

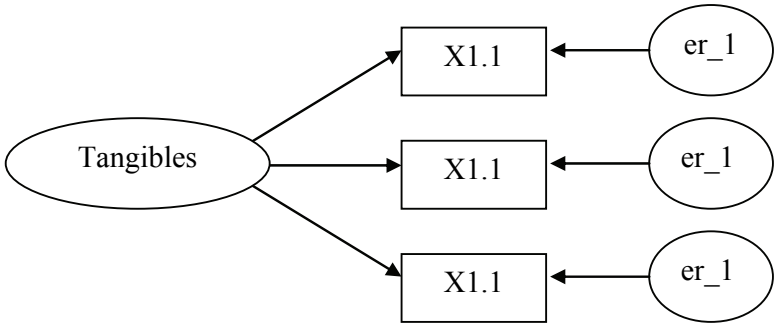
Limitation of this study is customers on PT. TIKI with a sample of 100 peoples. While the assumptions used in the study so as to produce good results is to use a significance level of 5%.

Types and Sources of Data

Types of Data

In this study the collected data sourced from:

Figure 3
Example of Model Factor Measurement of Tangibles



Description:
X1.1 = Questions about .....
X1.2 = Questions about .....
X1.3 = Questions about .....
j = error term er_ X1j

Primary data, which is obtained directly from genuine sources (not through an intermediary medium) PT. TIKI Branch of Kedung Sari Surabaya.
Secondary data, which is taken from documents or records in PT. TIKI Branch of Kedung Sari Surabaya.

Source of Data
Sources of data from this study obtained from:
Customers of PT. TIKI Branch of Kedung Sari Surabaya.

Data Collection
Interview, the data collection techniques to conduct interviews (frequently asked questions) directly to the customer to obtain the data.

Questionnaire technique, the method of data collection by using instrumental (questionnaire) for those customers who act as respondents.

Model and Technical Analysis
The model used in this study is Structural Equation Modeling (SEM). Measurement model of tangibles factor, reliabilities, responsiveness, assurance, empathy, service quality, satisfaction customer, was done by using Confirmatory Factor analysis. The effect assessment of each independent variable on the dependent variable is done by using path coefficients. The steps in the analysis of SEM measurement model with examples of factors Tangibles performed as follows:
Factor Dimensions Tangibles equation:

X1.1 = λ 1 Tangibles + er_1
X1.2 = λ 2 Tangibles + er_2
X1.3 = λ 3 Tangibles + er_3

If the above equation is expressed in a measurement model to be tested in the unidimensionality through Confirmatory factor analysis, then the measurement model with examples of *Tangibles* factor will appear Figure 3.

Likewise, other factors such as reliability, responsiveness, assurance, empathy, quality service, customer satisfaction.

Model Assumptions (Structural Equation Modeling)
Linearity of Distribution and Normality Test
1. Normality can be tested by looking at the data or image histogram can be tested by statistical methods.
2. Using the Critical Ratio obtained by dividing the coefficient of the sample with a standard error and Skewness value are usually presented in the statistics for the normality test is called a Z-value. Significant at 1% level, if Z is greater than the critical

value, then it can be assumed that the data distribution is not normal.
3. Normal Probability Plot.
4. Linearity by examining scatter plots of the data by selecting pairs of data and see patterns of spread to suspect the presence or absence of linearity.

Evaluation of Outliers
1. Observed value of Z-score: the provision among ± 3.0 is non outlier.
2. Multivariate outliers are tested with distance criteria of Mahalanobis at the level of P <0.001. The distance was tested with Chi-Square (χ^2) with df is the number of variables. Conditions: when the Mahalanobis > from the (χ^2) value is a multivariate outliers.

Outlier is an observation or data that has unique characteristics that look very different from other observations and appear in the form of extreme value for a single variable or combination of variables.

Singularity detection and Multicollinearity
It is conducted by observing the matrix of determinant covariance. With the provision if the sample matrix determinant close to 0 (small), then there multicollinearity and singularity.

Validity and Reliability Test
The validity concerning of the level of accuracy achieved by an indicator in assessing something or accurate measurement of what should be measured. While reliability is a measure of internal consistency of the indicators of a construct that indicates the degree to which each indicator was identified a common construct.

Because of the multidimensional indicators, then validity test of each latent / construct variable will be tested by looking at the loading factor of the relationship between each variable and latent variable observed. While the reliability test are tested by construct reliability and variance-extracted. Construct reliability and variance-extracted was calculated by the following formula:

$$CR = \frac{(\sum StdLoad)^2}{(\sum StdLoad)^2 + \sum \varepsilon j}. \quad (1)$$

$$CE = \frac{(\sum StdLoad)^2}{(\sum StdLoad)^2 + \sum \varepsilon j \sum \varepsilon i}. \quad (2)$$

Note:
CR = Construct Reliability
CE = Construct Extracted
StdLoad = Standardize Loading.

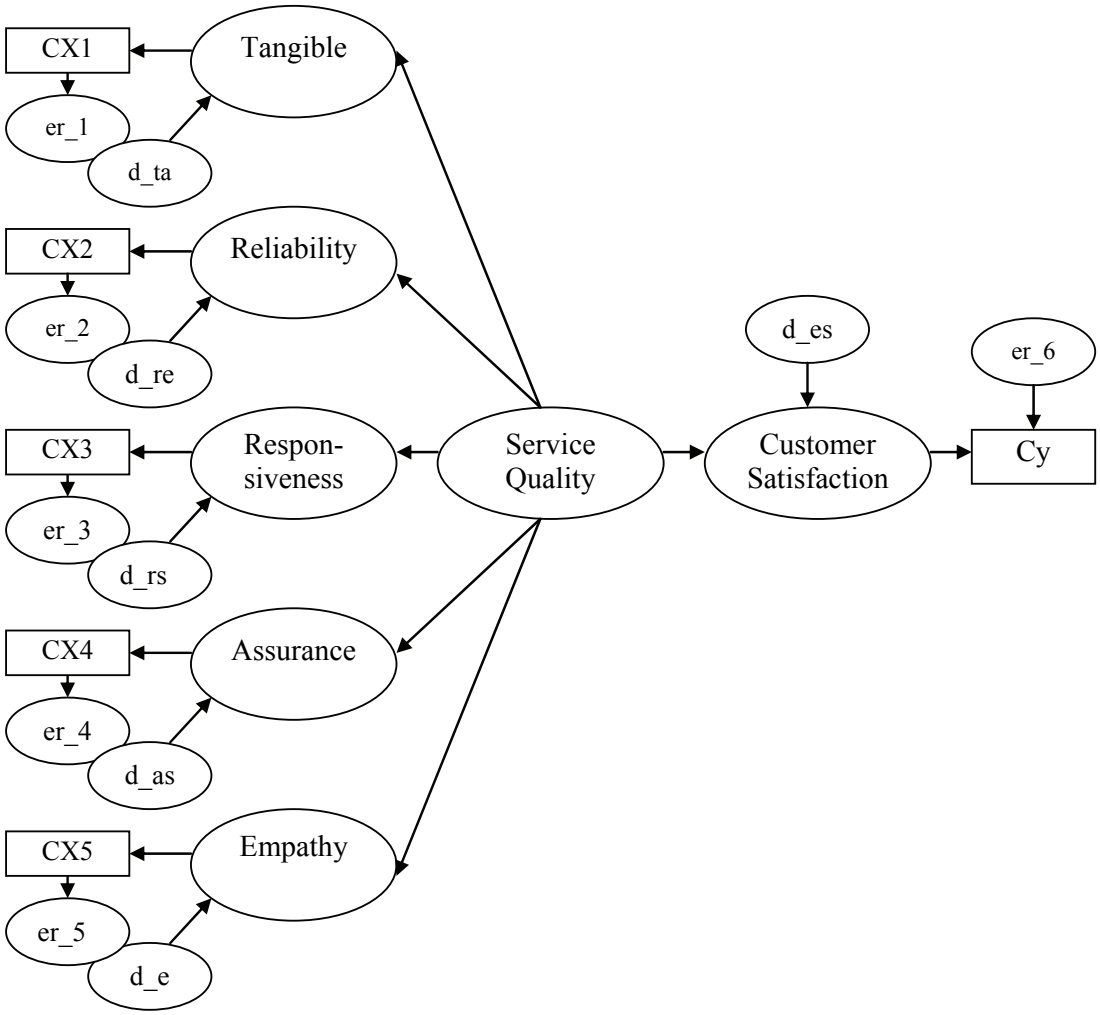
While εj can be calculated by the formula εj = 1 - (Standardize Loading). In general, the acceptable construct value of reliability was ≥ 0.7 and variance extracted was ≥ 0.5. Standardize Loading can be obtained from the output of AMOS 4.01, looking at the estimated value of each construct Standardize regression weights of each grain as an indicator.

Testing of Hypotheses and Causal Relations
The direct effect (path coefficients) were observed from the standardized regression weights, by testing the significance of the comparison value of CR (Critical Ratio) or *p* (probability) is equal to the value of t-test. If the t-test is greater than t-table it is mean significant.

Testing of Model with the Two-Step Approach
Two-Step Approach to structural equation modeling (SEM) was used to test the model presented in Figure 4. Two-step Approach is used to solve the problem of data samples is small compared to the amount of instrumentation point that used, and the accuracy of the best indicators of reliability can be achieved in this Two-step approach. Two-step approach aims to avoid the interaction between the measurement model and structural model of the One-step approach.

It is performed in a two-step approach to SEM such as: estimation of the measurement model and the estimation of the structural model. The way to analyze SEM with Two-step approach is as follows:

Figure 4
Structural Equation Modeling Two Step Approach.



a. Make sum of scale items of each construct into a summed-scale indicator for each construct. If there are different scales of each indicator was standardized (Z-scores) with mean = 0, standard deviation = 1, the goal is to eliminate the effects of different scales.
b. Setting the error (ε) and lamda (λ) terms, the error terms can be calculated by the formula 0.1 times (σ^2) and lamda terms with the formula 0.95 times σ. The calculation of construct reliability (α) has been described in previous sections and standard deviation (σ) can be calculated with the help of SPSS application program. After the error (ε) and lamda (λ) terms are known, the scores are included as fix parameter at SEM measurement model analysis.

Path diagram with a two-step approach can be seen Figure 4. Lines with arrows in one direction ($\rightarrow$) = line showing the hypothesized relationship between two variables where variables are the dependent variables arrows.Line with bidirectional arrows ($\leftrightarrow$) = line does not show the hypothesized relationship between two variables when both variables are correlated.

The descriptions of Figure 4 are:
CX1 = indicators of Tangible that have been composite.
CX2 = indicators of Reliability that have been composite.
CX3 = indicators of Responsiveness that have been composite.
CX4 = indicators of Assurance that have

Table 1
Standardize Factor Loading and Construct with Confirmatory Factor Analysis

Construct	Indicator	Factor Loading			
		1	2	3	4
Tangibles	X11	0.828			
	X12	0.728			
	X13	0.957			
Reliability	X21		0.719		
	X22		0.729		
	X23		0.651		
Responsiveness	X31			0.743	
	X32			0.781	
	X33			0.650	
Empathy	X41				0.571
	X42				0.879
	X43				0.675
Assurance	X51			0.814	
	X52			0.885	
	X53			0.815	
Customer Satisfaction	Y1		0.867		
	Y2		0.882		
	Y3		0.828		

Source: Data processed.

been composite.
CX5 = indicators of Empathy that have been composite.
CY = Customer Satisfaction Indicators that have been composite.
er_ j = error term of each indicator that have been composite.
er_ i = Disturbance / error each latent variable (constraint).

Evaluation Model

Hair et al. (1998) explains that the pattern of "confirmatory" indicates that the procedure was designed to evaluate the utility of testing hypotheses with the fit between theoretical models and empirical data. If the theoretical models describing the "good fit" with the data, then the model is considered as a strengthened. In contrast, a theoretical model has not been confirmed if the theory has a "poor fit" with the data. Amos can test whether the model of "good fit" or "poor fit". Thus, "good fit" model we tested is very important in the use of structural equation modeling. Tests on models are developed by various criteria Goodness of Fit, the Chi-square, probability, RMSEA, GFI, TLI, CFI, AGFI, CMIND / DF. If the initial model is not good fit to the data then the model is developed with two-step approach to SEM approach.

DATA ANALYSIS AND DISCUSSION

Test Validity

Confirmatory factor analysis was conducted to examine construct validity studies that are Tangibles, Reliability, Responsiveness, Assurance, Empathy and Customer Satisfaction. If the factor loadings of each item questions that make up each construct were ≥ 0.5, then the instrumentation points (indicators) of construct validity can be said to be good.

Analysis of confirmatory factor analysis is performed by means of the statistical application program AMOS 4.01. More test results appear in Table 1.

Based on the results of confirmatory fac-

Table 2
Internal Consistency Reliability Test

Construct	Indicator	Item to Total Correlation	Cronbach's Alpha Coefficients
Tangibles	X11	0.552	
	X12	0.481	0.724
	X13	0.608	
Reliability	X21	0.541	
	X22	0.552	0.713
	X23	0.504	
Responsiveness	X31	0.538	
	X32	0.543	0.704
	X33	0.508	
Empathy	X41	0.467	
	X42	0.631	0.715
	X43	0.517	
Assurance	X51	0.648	
	X52	0.724	0.816
	X53	0.639	
Customer Satisfaction	Y1	0.702	
	Y2	0.699	0.829
	Y3	0.661	

Source: Data processed.

tor analysis shows that factor loadings of each item questions that make up each construct entirely ≥ 0.5, so that the grains of the instrumentation of each construct validity can be said to be good.

Reliability Test

Internal Consistency Reliability testing is used to estimate the reliability of each scale (variables or constructs), where the test using Cronbach's Alpha Coefficient. If the value of Cronbach's alpha coefficient obtained entirely meet the required rules of thumb that is ≥ 0.7, then it could be said to be testing the internal consistency reliability for each construct shown good results (Hair et al. 1998).

While the item to total correlation was used to correct measurements and eliminate items that his presence would reduce the coefficient of Cronbach's Alpha is generated. If there are indicators that have a value of item to total correlation <0.5, the indicator is eliminated and not included in the calculation of Cronbach's Alpha (Purwanto 2003).

Calculation of Cronbach's alpha coefficient and item to total correlation value is done by SPSS program. As a result of internal consistency reliability testing can be seen in Table 2.

Based on calculations, there was no elimination in the study of indicators for the item to total correlation ≥ 0.5 all indicators, so that all items are included in the calculation of Cronbach's Alpha. The results of testing the internal consistency reliability for each construct of the study, showed good results when Cronbach's alpha coefficients obtained satisfy all the required rules of thumb that is ≥ 0.7.

In addition to testing the internal consistency of Cronbach's Alpha, it should also be tested construct reliability and variance extracted. Both tests are still among the internal consistency test that will give researchers greater confidence that the individual indicators to measure the same measurement. The

Table 3
Test of Construct Reliability and Variance Extracted

Construct	Indicator	Std. Factor Loading	SFL Squares	Error [εj]	Construct Reliability	Variance Extracted
Tangibles	X11	0.828	0.686	0.314		
	X12	0.728	0.530	0.470	0.879	0.710
	X13	0.957	0.916	0.084		
Reliability	X21	0.719	0.517	0.483		
	X22	0.729	0.531	0.469	0.743	0.491
	X23	0.651	0.424	0.576		
Responsiveness	X31	0.743	0.552	0.448		
	X32	0.781	0.610	0.390	0.770	0.528
	X33	0.650	0.423	0.578		
Empathy	X41	0.571	0.326	0.674		
	X42	0.879	0.773	0.227	0.757	0.518
	X43	0.675	0.456	0.544		
Assurance	X51	0.814	0.663	0.337		
	X52	0.885	0.783	0.217	0.877	0.703
	X53	0.815	0.664	0.336		
Customer Satisfaction	Y1	0.867	0.752	0.248		
	Y2	0.882	0.778	0.222	0.894	0.738
	Y3	0.828	0.686	0.314		
Acceptable limit					≥ 0,7	≥ 0,5

Source: Data processed.

results of the testing construct reliability and variance extracted can be seen in Table 3.

Results of reliability testing instrument with construct reliability and variance extracted showed reliable instrument, as indicated by the value of the whole construct reliability ≥ 0.7. Number 0.7 is not a measure of "dead" means that when the research conducted is exploratory, then any value below 0.7 is acceptable along with the empirical reasons that appear in the exploration process. And variance extracted at the recommended level of 0.5.

Outlier test

Univariate Outliers Test

Univariate outlier test conducted by observing the value of Z-score, all cases have a Z-score ≥ ± it is means the outlier.

Multivariate Outliers Test

Outliers are observations or data that has unique characteristics that look very different from other observations and appear in the form of extreme value for a single variable or combination of variables (Hair 1998).

Multivariate outliers test is done using the distance criteria Mahalonobis at p <0.001. Mahalonobis distance was evaluated using χ^2 on the degrees of freedom for the number of indicators used in the study. If the cases that have Mahalanobis distance is greater than the value of chi-square significant at the 0.001 level then there is a multivariate outliers.

Total number of indicators used in this study is 18 indicators, thus it can be obtained the value of χ^2 (0, 001, 18) is 42.312. The analysis of Mahalonobis generates maximum value of 40.388. Since the distance of the maximum Mahalanobis Distance is less than χ^2 (0, 001, 18) that is 40.312 < 42.312, then it can be concluded that there is no multivariate outliers as shown in Table 4.

Normality Test

Distribution normality test is carried out by kurtosis value of the data used are usually

Table 4
Multivariate Outliers Testing

Residuals Statistics(a)

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-3.310	93.283	50.500	18.853	100
Std. Predicted Value	-2.854	2.269	0.000	1.000	100
Standard Error of Predicted Value	7.478	15.760	10.481	1.758	100
Adjusted Predicted Value	-10.612	94.731	50.385	19.807	100
Residual	-53.789	47.710	0.000	22.050	100
Std. Residual	-2.206	1.957	0.000	0.905	100
Stud. Residual	-2.465	2.115	0.002	1.002	100
Deleted Residual	-67.131	55.691	0.115	27.145	100
Stud. Deleted Residual	-2.547	2.162	0.000	1.012	100
Ma Distance	8.325	40.388	17.820	6.589	100
Cook's Distance	0.000	0.100	0.012	0.018	100
Centered Leverage Value	0.084	0.408	0.180	0.067	100

Source: Data processed.

presented in descriptive statistics. Statistical value for the normality test is called a Z-value. When the Z-value greater than the critical value, it can be presumed that the data distribution is not normal. The critical value can be determined based on a significance level of 0.01 (1%) in the amount of ± 2.58.

The test results on Table 5 show that the value c.r. multivariate is between ± 2.58 meaning that the normality assumptions are met. Bentler and Chou (1987) states that the estimation techniques in SEM models using maximum likelihood estimation (MLE), so even though the normal distribution of data are still able to produce good estimate, so the data is appropriate for use in subsequent estimates.

Evaluation Model

Evaluation Model One-Step Approach to SEM

In SEM models, the measurement model and structural model parameters are estimated jointly. This rather has difficulty in meeting the demands of the model fit. Most likely caused by the interaction between measurement models and structural models are estimated jointly (one-step approach to SEM). One step approach to SEM is used when it is believed that the model based on strong theory and the validity and reliability of the data very well (Hair et al. 1998).

The results of the model estimates and fit one step approach to SEM and goodness of fit using the AMOS program 4.01 as shown in Table 6 and Figure 5 in Appendices.

Evaluation Model One-Step Approach to SEM with Modifications

From the results of an evaluation of the model one step approach has not been known that the model fits the data because the model has not been entirely the result of evaluation showed good results. That is, the conceptual model is developed and guided by the theory is not well supported by facts. Thus the model needs to be modified as shown in Table 7 and 8.

From the results of an evaluation of the model one step approach of modification turns all the goodness of fit criteria are used, all showing good results of the evaluation model, it means that the model was fit to the data. That is, the conceptual model is developed and based on the theory has been fully supported by the facts. Thus this model is the best model to explain the relationship between variables in the model.

Based on test results, it can be con-

Table 5
Normality Test

	Min	Max	Skew	C.R.	Curtosis	C.R.
Y3	2	5	-1.002	-4.090	0.390	0.797
Y2	2	5	-1.026	-4.187	0.318	0.649
Y1	2	5	-0.886	-3.619	0.256	0.523
X51	2	5	-0.961	-3.923	0.707	1.443
X52	2	5	-0.997	-4.070	0.442	0.903
X53	2	5	-0.825	-3.366	-0.065	-0.132
X41	2	5	-0.528	-2.155	-0.355	-0.725
X42	2	5	-0.676	-2.760	0.032	0.066
X43	3	5	-0.573	-2.338	-0.721	-1.473
X31	2	5	-0.730	-2.982	0.332	0.678
X32	2	5	-1.250	-5.103	1.138	2.322
X33	1	5	-0.948	-3.870	0.173	0.353
X21	2	5	-0.710	-2.900	0.153	0.313
X22	3	5	-0.634	-2.589	-0.576	-1.175
X23	3	5	-0.602	-2.456	-0.600	-1.224
X11	2	5	-1.196	-4.881	1.609	3.284
X12	2	5	-1.071	-4.373	1.222	2.494
X13	2	5	-1.236	-5.047	2.114	4.315
Multivariate					14.981	2.791
Normal limits						±2.58

Source: Data processed.

Table 6
Evaluation Criteria for Goodness of Fit Indices (Base Model)

Criteria	Results	Critical Value	Model Evaluation
Cmin/DF	1.709	≤ 2,00	Good
Probability	0.000	≥ 0,05	Not good
RMSEA	0.085	≤ 0,08	Marginal
GFI	0.816	≥ 0,90	Not good
AGFI	0.759	≥ 0,90	Not good
TLI	0.802	≥ 0,95	Not good
CFI	0.832	≥ 0,94	Not good

Source: Data processed.

cluded that multicollinearity and singularity does not occur multicollinearity or singularity. Thus the magnitude of the regression coefficients of each factor can be trusted, as seen in the causality test below.

Hypotheses Testing and Causality Relations

a. Hypothesis testing of Unidimension First Order.

Hypothesis testing (alternative) is done by comparing the value of probability (p) it is said significant when $p \leq 0.10$. With these criteria it can be seen from Table 9 that all pathways are significant. Which is an indicator (X1.1) a lot of number of tellers, (X1.2) free and secure parking for maintained, and (X1.3) there are tv / music and air-conditioned room to be an indicator of Tangible. (X2.1) the ability of PT. TIKI provide the promised service in accordance with appropriate, accurate and reliable, (X2.2) the

Table 7
Modification Indices

Co variances:			M.I.
z5	<-->	z6	21.19
z3	<-->	z4	19.545
e16	<-->	z5	13.813
e14	<-->	e16	11.492
e15	<-->	z6	11.028
e9	<-->	e10	10.623
e9	<-->	e14	9.044
e1	<-->	e15	6.918
e15	<-->	e18	6.566
e10	<-->	z3	6.137
e9	<-->	e16	5.236
e14	<-->	e18	4.953
e9	<-->	e13	4.715
e8	<-->	z4	4.092
e7	<-->	z4	4.056

Table 8
Evaluation Criteria for Goodness of Fit Indices (Modified Model)

Criteria	Results	Critical Value	Model Evaluation
Cmin/DF	0.833	≤ 2,00	Good
Probability	0.901	≥ 0,05	Good
RMSEA	0.000	≤ 0,08	Good
GFI	0.907	≥ 0,90	Good
AGFI	0.860	≥ 0,90	Marginal
TLI	1.047	≥ 0,95	Good
CFI	1.000	≥ 0,94	Good

Source: Data processed.

settlement procedure is straightforward, and (X2.3) the information is accurate and satisfactory customer service become an indicator Reliability. (X3.1) responsively face the problems that arising, (X3.2) teller's skills in support of time to complete the transaction, and (X3.3) flexibility of the service / working hours to be an indicator of Responsiveness. (X4.1) teller's accuracy to service customer will give customers a sense of security when making transactions, (X4.2) friendliness of employees, and (X4.3) image of PT. TIKI in the public seeing is good to be an indicator of Assurance. (X5.1) the employee's ability to understand customer needs, (X5.2) ease to communicating either directly / via phone, and (X5.3) every employees are patient to serving customers to be an indicator of Empathy. (Y1) be the first choice of many options that exist, (Y2) the overall service quality, and (Y3) customer expectations are met to be an indicator of customer satisfaction.

b. Hypothesis testing of Unidimension Second Order

This hypothesis testing (alternative) is done by comparing the value of probability (p) it is said significant if the p-value ≤ 0.10. With these criteria it can be seen from Table 10 that all pathways is significant. So that Tangible, Reliability, Responsiveness, Empathy and Assurance are the dimensions of Service Quality.

c. Causal Hypothesis Testing

This hypothesis testing (alternative) is done

Table 9
Hypothesis testing of Unidimension First Order

Regression Weights			Ustd Estimate	Std Estimate	P	Description
Indicator		Factors				
X11	<--	*Tangibles*	0.678	0.674	0.010	Significant
X12	<--	*Tangibles*	0.496	0.563	0.014	Significant
X13	<--	*Tangibles*	1.000	1.035	0.000	Significant
X21	<--	*Reliability*	1.239	0.724	0.000	Significant
X22	<--	*Reliability*	1.083	0.672	0.000	Significant
X23	<--	*Reliability*	1.000	0.624	0.000	Significant
X33	<--	*Responsiveness*	1.000	0.585	0.000	Significant
X31	<--	*Responsiveness*	0.914	0.691	0.000	Significant
X32	<--	*Responsiveness*	1.054	0.736	0.000	Significant
X41	<--	*Empathy*	0.917	0.553	0.000	Significant
X42	<--	*Empathy*	1.200	0.814	0.000	Significant
X43	<--	*Empathy*	1.000	0.690	0.000	Significant
X51	<--	*Assurance*	0.985	0.768	0.000	Significant
X52	<--	*Assurance*	1.159	0.860	0.000	Significant
X53	<--	*Assurance*	1.000	0.703	0.000	Significant
Y1	<--	*Customer service*	1.000	0.807	0.000	Significant
Y2	<--	*Customer service*	1.063	0.815	0.000	Significant
Y3	<--	*Customer service*	0.939	0.747	0.000	Significant

Source: Data processed.

by comparing the value of probability (p) it is said significant if the p-value ≤ 0.10. With these criteria it can be seen from Table 11 that all pathways is significant, that service quality has a positive effect on Customer Satisfaction, are acceptable [significant (positive)]. This is indicated by the causal probability value of 0.000 is smaller than 0.10.

Discussions

The dimensions of service quality are formed by the Tangibles, Reliability, Responsiveness, Assurance, and Empathy

From the result, it was found that of the five dimensions that are used all have a significant influence and is able to establish service quality. So the hypothesis that service quality is formed by the Tangibles, Reliability, Responsiveness, Assurance, and Empathy are proven true. These findings are consistent with the theory of Parasuraman, Zeithaml, and Berry was quoted by Tjiptono (2000: 99). They stated that there are five dimensions of service quality that is Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

All of the five variables that make up service quality are able to form a quality service that is Tangibles, Reliability, Responsiveness, Assurance, and Empathy. This suggests that most customers of PT. TIKI Indonesia Branch of Kedung Sari believes that it is able to provide physical facilities, equipment and means of communication with employees well. Additionally customers of PT. TIKI Indonesia Branch of Kedung Sari are also considered that the company is able to provide the promised services promptly and satisfactorily. PT. TIKI Indonesia Branch of Kedung Sari also has a desire that the staff can help customers and provide a responsive service. The guarantee provided by PT. TIKI Indonesia Branch of Kedung Sari perceived by customers, demonstrated by ability, courtesy and trustworthiness that of the staff, free from danger, risk or doubt. PT. TIKI is also able to provide ease in the relationship, good communication, and understanding customer needs.

Table 10
Hypothesis testing of Unidimension Second Order

Regression Weights			Ustd Estimate	Std Estimate	P
Dimension		Factor			
Tangibles	<--	*Service Quality*	1.000	1.400	0.000
Reliability	<--	*Service Quality*	0.164	0.415	0.009
Responsiveness	<--	*Service Quality*	0.346	0.607	0.001
Empathy	<--	*Service Quality*	0.169	0.365	0.038
Assurance	<--	*Service Quality*	0.420	0.664	0.002

Source: Data processed.

Table 11
Causal Hypothesis Testing

Regression Weights			Ustd Estimate	Std Estimate	P
Customer service	<--	*Service Quality*	0.511	0.761	0.000

Source: Data processed.

Service quality for Customer Satisfaction

From the test results, it was found that service quality has a positive effect on customer satisfaction can be accepted, because it has a probability value of ≤ 0.10 [significant (positive)]. In the form of customer satisfaction, the role of service quality is also very important, because service quality will greatly affect the customer's perception of service qualities provided by PT. TIKI, and can directly affect customer satisfaction.

These results are consistent with Gerson (2004: 11), if a company providing quality and good service then customer satisfaction will follow. In addition, this research is also in accordance with the empirical study of Maya Ida and Erna Kesumawatie Sukowaty (2005) that service quality affects customer satisfaction on PT. Pos Indonesia of South Surabaya accepted or proven.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Based on the results of data processing and discussion, conclusions can be obtained as follows:

The hypothesis stated that service quality is formed by the dimensions of Tangibles, Reliability, Responsiveness, Assurance, and Empathy are the forming of the service quality dimensions is acceptable.

The hypothesis stated that there are the influences of service quality to customer satisfaction can be accepted and significant.

Based on the conclusion above, the suggestion given to be taken into consideration are as follows:

The management of PT. TIKI Branch of Kedung Sari Surabaya should maintain or even increase the Tangibles, Reliability, Responsiveness, Assurance, and Empathy, because based on the results of this study it is able to form the five dimensions of service quality.

This study is one of the structural studies on service quality from the viewpoint of consumer behavior. Thus, the study is expected to encourage other studies, both in similar studies with different data or larger sample, and use these results as guidelines for other studies.

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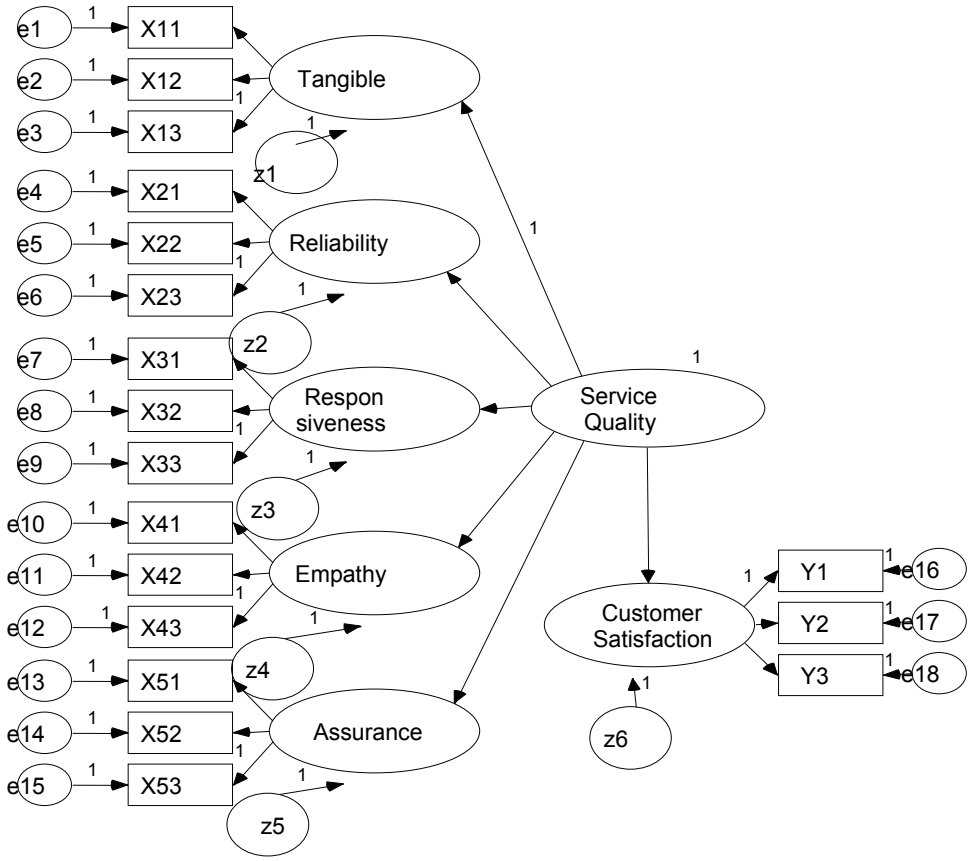
APPENDICES

Figure 5
Model Specification: One Step Approach - Base Model



Sources: Data processed.