

## Service Quality and Customer Satisfaction of Passenger *Bus Rapid Trans* Semarang, Indonesia

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**Abstract:** Public transportation is a service provided by the government in several major cities, whose purpose is related to reducing congestion. In addition to the jammed that underlies the existence of public transportation, the people's desire to have a safe, comfortable, easy and affordable transportation mode. The aims of this research are to analyze the relationship between service quality and passenger satisfaction in BRT Semarang. Survey questionnaire was conducted from 150 passengers, to analyze and test the relationship between variables using a simple regression test with the help of SPSS 22. The results obtained explain that three of the five dimensions of service quality positively contribute to passenger satisfaction in the Semarang BRT. Thus, this means that to increase customer satisfaction, the BRT Semarang must pay more attention and increase efforts into the five dimensions of service quality, especially the weakest of tangibility and assurance.

**Keywords:** Service Quality, Passenger Satisfaction, BRT Semarang, Public Transportation.

### INTRODUCTION

Public transportation is a service provided by the government in several major cities, whose purpose is related to reducing congestion. One city that reflects the congestion in addition to Jakarta is the city of Semarang.

In addition to the jammed that underlie the existence of public transportation, the people's desire to have a safe, comfortable, easy and affordable transportation mode. Semarang city government in order to realize the dream now has a Bus Rapid Trans Semarang which was established in 2009, besides this Semarang has now been available to align with other big cities such as Jakarta, Yogyakarta which first have a well integrated mass transportation mode.

Even so, there were many things that happened, the number of arrivals, the number of services on the bus to disturb the moving route / corridor. Revealing the BLU Trans Semarang reported that there were 459 who were shunted by the official Trans Semarang account throughout the September quarter 2017. The richest complaint in the corridor 1 of the Trans Semarang BRT, sending the most of them was the driver, even on the bus, Receiving rough, breaking through traffic lights, the bus does not arrive at the shelter, and the last condition is the bus.

This service can improve the image of BRT which can damage the company's business. Such negative perceptions do not satisfy consumers in using public transportation [1]. Czepiel [2] writes service style as a customer's perception of good services or

services provided. In other words, customers assume they must get good service. Ekinici [25] shows that quality evaluation services on customer satisfaction. Thus, there are service level problems for satisfaction to meet customer expectations.

### LITERATURE REVIEW

#### Service Quality

Parasuraman *et al.*, [3] viewed quality as the degree and direction of discrepancy between customers' service perception and expectation. Czepiel [2] defined service quality as customer perception of how well a service meets or exceeds their expectation through the service that provided. In other words, the service quality is evaluated based on the customers' expectations and perceptions towards the service that they received.

Customer expectation is what the customer expects according to available resources and is influenced by cultural background, family lifestyle, personality, demographics, advertising, experience with similar products and information available online. Customer perception is totally subjective and is based on the customer's interaction with the product or service. Perception is derived from the customer's satisfaction of the specific product or service and the quality of service delivery. The most dominant

instrument in measuring service quality is SERVEQUAL. The 10 determinants were found to characterize customers' perception of the service. One of the determinants, competence, is clearly related to the technical quality of the outcome, and another, credibility, is closely connected to the image aspect of perceived quality. However, it is interesting to observe that the rest of the determinants are more or less related to the process dimension of perceived quality [4]. As a result of later study 10 determinants of service quality were decreased to the following five [4]:

1. Tangibles. This determinant is related to the appeal of facilities, equipment and material used by a service firm as well as to the appearance of service employees. Hypothesis 1. The tangible dimension is positively related to passenger's satisfaction at BRT Semarang.

2. Reliability. This means that the service firm provides its customers with accurate service the first time without making any mistakes and delivers what it has promised to do by the time that has been agreed upon. Hypothesis 2. The reliability dimension is positively related to customer satisfaction at BRT Semarang.

3. Responsiveness. This means that the employees of a service firm are willing to help customers and respond to their requests as well as to inform customers when service will be provided, and then give prompt service. Hypothesis 3. The responsiveness dimension is positively related to customer satisfaction at BRT Semarang.

4. Assurance. This means that employees' behavior will give customers confidence in the firm and that the firm makes customers feel safe. It also means that the employees are always courteous and have the necessary knowledge to respond to customers' questions. Hypothesis 4. The assurance dimension is positively related to customer satisfaction at BRT Semarang.

5. Empathy. This means that the firm understands customers' problems and performs in their best interests as well as giving customers individual personal attention and having convenient operating hour. Hypothesis 5. The empathy dimension is positively related to customer satisfaction at BRT Semarang.

#### **Customer Satisfaction**

Kotler [5, 6] defines services as the activities or benefits that an organisation provides to other groups. Services share no ownership with generated

things or affairs, and are equipped with the following characteristics: intangible, inseparable, heterogeneous, and perishable. Parasuraman *et al.*, [7] define service quality as the gap between customers' expected and perceived quality of service, as customers usually compare the services received with what they had expected to receive prior to the service encounter. Parasuraman, Zeithaml, and Berry [7] state service quality is a kind of overall evaluation of service excellence, an attitude one has toward the service. Service quality is therefore related to long-term awareness, and it can be evaluated by customer attitude. There are various service quality measurement scales developed in extant literature. For example, Sasser, Olsen, and Wyckoff [8] evaluates service quality based on the six factors of safety, integrity, attitude, completeness, adjustment, and accessibility

Since customer satisfaction has been considered to be based on the customer's experience on a particular service encounter [9], it is in line with the fact that service quality is a determinant of customer satisfaction, because service quality comes from outcome of the services from service providers in organizations. Another author stated in his theory that "definitions of consumer satisfaction relate to a specific transaction (the difference between predicted service and perceived service) in contrast with 'attitudes', which are more enduring and less situational-oriented [10]". This is in line with the idea of Zeithaml *et al.*, [11]. Regarding the relationship between customer satisfaction and service quality, Oliver [12] first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific. Some researchers have found empirical supports for the view of the point mentioned above [13-15]; where customer satisfaction came as a result of service quality. In relating customer satisfaction and service quality, researchers have been more precise about the meaning and measurements of satisfaction and service quality. Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service [16]. Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction [11]. This theory complies with the idea of Wilson *et al.*, [16] and has been confirmed by the definition of customer satisfaction presented by other researchers.

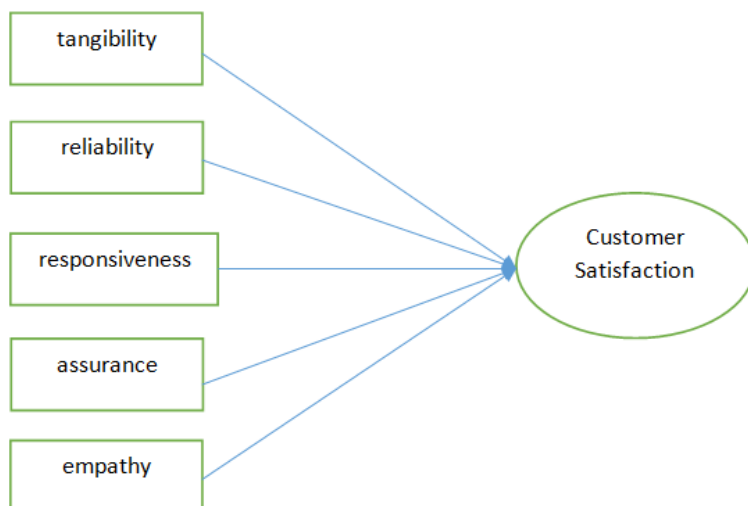


Fig-1: Conceptual Framework

Relevant research

SNo	Article name	Variable	Findings
1	Service Quality And Customer Satisfaction: Rapid Kuantan In Kuantan Route, Malaysia[17]	Service quality Customer satisfaction	Service quality → Customer satisfaction : supported
2	The influence of service quality on customer satisfaction and loyalty in B2B technology service industry [18]	Service quality Customer satisfaction Loyalty	Service quality → customer satisfaction : supported
3	Determinants of Customer Satisfaction of Service Quality: city bus service in Kota Kinabalu, Malaysia [19]	Public transporatation, city bus, factor analysis, customer satisfaction	Service quality → customer satisfaction : supported

RESEARCH METHODS

An appropriate research design is required in order to gain precise information to answer the objective of the research. A descriptive study is used to ascertain and to be able to describe the characteristics of variables in a situation. This study is undertaken to identify characteristics or description on the variables affecting a problem situation. The passengers were asked of their opinion and what they felt about the service. The descriptive research is followed by conclusive research that is specific on causal research. The reason to use causal research is to obtain evidence on cause-and effect (causal) relationship. It is investigated whether one variable causes or determines the value of another variable. The population are the passengers taking the three BRT routes: Route 1, Route 2 and Route 3. Stratified random sampling technique was applied. After two months of collecting, 150 passengers. Structured questions are being chosen by presenting a fixed set of response alternatives to respondents in the form of closed-ended questions using Likert-type scale. The study uses Structured questions because it is easy for respondents to answer the questions. The coding and analyzing of data are much simpler and hence less costly. The likert type scale ranges from five scales, one to five (1-5), which is 1-

strongly disagree, 2 – disagree, 3- undecided, 4- agree and 5- strongly agree. For research, primary data has been selected as the first method in data collection. The specific purpose of addressing the problem in hand has been addressed. However, this method requires much time, energy and cost. The data has been gathered by meeting customers, talking to consumers, observing them, and seeking their responses through questionnaires. For this study, 20 samples of questionnaire had been distributed to identify whether the questionnaire is reliable or not, and all the 20 sets of feedbacks had been tested using Cronbach’s Alpha. The results of the pilot test are provided in Table-1. The obtained values of Cronbach’s alpha range from 0.645 to 0.802, higher than 0.6 [20]. The precision with which things are measured in a study is expressed in terms of validity and reliability [21]. These two are related because if a measure is valid then it is reliable [22]. Validity is concerned with whether the findings are really about what they appear to be about [23]. Validity represents how well a variable measures what it is supposed to measure Hopkins [21]. Likewise reliability refers to the extent to which the data collection techniques or analysis procedure will yield consistent findings [23]. Thus, all constructs are retained and reliable for further analysis.

Table-1: Pilot Test Result

<b>Cronbach's Alpha</b>	0.681
<b>Construct</b>	<b>Reliability</b>
Reliability	0.718
Tangibility	0.756
Responsiveness	0.800
Assurance	0.802
Empathy	0.747
Satisfaction	0.645

**DISCUSSION**

**Descriptive Response**

Stradling *et al.*, [24] stated that transport patterns and choices vary with person's characteristics such as age, gender, etc. it can be seen in Table-2 show

that 62 (41.3%) male respondents participated the study while female 88 are female possessing 58.7%. Majority (60%) of the respondents is young at the age of 16-30 years old while the minority (12%) is over 40 years old. And the student dominant passanger 45.3 %.

**Table-2: Respondent's Profile (n=150)**

Items	Frequency	%
Gender		
Male	62	41.3
Female	88	58.7
Age		
15 – 30	90	60
31 – 40	42	28
41 and above	18	12
Jobs		
student	68	45.3
office	51	34
other	31	20.7

**Hypothesis**

Hypothesis Testing (Correlation Analysis) Pearson Correlation was carried out to investigate the relationship between, independent and dependent variables. The sign of the correlation coefficient shows the direction of the correlation while the absolute value of it indicates the strength of the association between the two variables. Table-3 provides the results of the correlations between the independent and dependent variables. It can be seen that all the correlation coefficient values are positive, which implies all the

independent variables (reliability, tangibility, responsiveness, assurance and empathy) are positively related to the dependent variable (customer satisfaction). Thus, all the afore-formulated research hypothesis 1-5 could be accepted. Besides, all the independent variables except Assurance (r=0.187, Sig.=.063) and Tangibility (r=0.166, Sig.=.056) is not significant. Amongs, Reliability (r=0.365, Sig.=.000), Responsiveness (r=0.346, Sig.=.000) is the strongest one that associates with the dependent variable, followed by Empathy (r=0.315, Sig.=.000).

**Table-3: Correlations between the Service Quality Dimensions and Customer Satisfaction**

	Reliability	Tangibility	Responsiveness	Assurance	Empathy
Pearson Correlation r	.365**	.166	.346**	.187	.315**
Sig. (2-tailed)	.000	.056	.000	.063	.000

**CONCLUSIONS**

In conclusion, this study attempts to measure the level of customer satisfaction based on service quality dimension factors. Based on the results obtained, the dimensions of service quality (reliability, tangibility, responsiveness, assurance, and empathy), there are only three dimensions that have a positive effect on service quality, namely (reliability, responsiveness, empathy), while tangibility and guarantees negatively affect satisfaction passengers. Thus, this means that to improve customer satisfaction, BRT Semarang must do a lot of service

improvement and improvement, especially in the aspects of tangibility and assurance. in future research researchers recommend adding other variables, service innovation, customer value, and loyalty.

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