

## SERVICE QUALITY AND CUSTOMER SATISFACTION: RAPID KUANTAN IN KUANTAN ROUTE, MALAYSIA

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### Abstract

Public transportation is supposed to bring more convenience to customers in urban and rural areas. However, continuous complaints about Rapid Kuantan were exposed in internet, which causes the bad public image of the two-year-old public transport. This study aims to evaluate customer satisfaction towards the service quality provided by the Rapid Kuantan from the dimensions of reliability, tangibility, responsiveness, assurance and empathy. Survey questionnaire was conducted from 150 passengers from three routes (Route 100, 200 and 300) of Rapid Kuantan. The derived results verify that the five service quality dimensions positively contribute to customer satisfaction at Rapid Kuantan, especially in the three routes. Thus, it implies that to enhance customer satisfaction, the Rapid Kuantan could exert more efforts on the five service quality dimensions, especially the weakest one Reliability.

**Keywords:** Public Transport, Service Quality, Passenger Satisfaction

### 1 INTRODUCTION

The public transportation provided by the government is to give more convenience towards customers for urban and rural areas. The issues affecting the service quality of public transport in Malaysia are often annoying consumers. This study was devoted to investigate the customer satisfaction on Rapid Kuantan, the public bus transportation launched by Malaysia government in November, 2012.

During the past two years, continuous complaints about Rapid Kuantan were exposed in internet, such as it takes too long to reach the final destination regardless of even offering buses in high frequency, since many stopping points are covered on the way to the destination which spends 2 hours plus 15 or 20 minutes, comparing with 30 to 40 minutes by car. Other complaints are about low availability of drivers, dangerous driving manner, poor punctuality, dirty bus stop without roof, etc.

Such negative perceptions dissatisfy consumer in using the public transportation (Thompson and Schofield, 2002). And this situation causes bad images to the Rapid Kuantan, which may further ruin their business. Czepiel (1990) defined service quality as customer's perception of how well a service meets or exceeds their expectation through the service that provided. In other words, customers assume that they should get good service. Ekinci (2003) indicated that the evaluation of service quality leads to customer satisfaction. Thus, it is good to know the level of service quality in its early stage in order to improve it according to the expectations of their consumers.

Thus, this study attempted to investigate the customer satisfaction and service quality of Rapid Kuantan by using SERVQUAL dimensions, covering tangibility, reliability, responsiveness, empathy and assurance.

Section 2 presents related work. Section 3 explains sampling techniques and measurement development. Data reliability and validity are tested in Section 4 with results discussed. Finally, Section 5 concludes the research and proposes feasible advices.

## 2 RELATED WORK

### 2.1 Service quality

Parasuraman et al. (1988) viewed quality as the degree and direction of discrepancy between customers' service perception and expectation. Czepiel (1990) 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. It was proposed by Berry et al. in 1985, which comprises of 10 dimensions with 97 items, later reduced to 5 dimensions with 22 items. Previous researches employing SERVEQUAL instrument measured service quality by means of the disconfirmation model, calculating the degree and direction of discrepancy between consumers' perceptions and expectations about different dimensions of the service. This study differentiates itself by measuring the degree and direction of discrepancy between customers' perceptions on different dimensions of the Rapid Kuantan service in relation with the overall satisfaction.

#### 2.1.1 Tangibility

Tangibility is defined as physical facilities, equipment, and appearance of personnel are used to provide the service. Parasurman et al. (1988) suggested using physical appearance to measure service quality in public transportation. Sureshchandar et al. (2002) stated that the appearance of the employee, and the man-made physical environment surrounding the service, which is commonly known as the service scape can be known as the tangibility of the service. Physical quality refers to make a good consumption during the delivering the service to the customer. Therefore, the tangibility is important to satisfy consumers with the service that have been provided to them.

Hypothesis 1. The tangible dimension is positively related to passenger's satisfaction at Rapid Kuantan.

#### 2.1.2 Reliability

Reliability of public transport is regarded as the ability to perform the promised service dependably and accurately. Reliability focuses on punctuality and frequency of public transport which shall be able to meet the requirements of the customers. Hence, it could be stated that unreliability in public transport drives away existing and potential passengers, because passengers are affected by the consequence associated with unreliability such as delay or early arrival at destination, missed connection and additional waiting period, which may increase their anxiety and discomfort for the services(Bates et al.2001; Reitveld et al.,2001).

Hypothesis 2. The reliability dimension is positively related to customer satisfaction at Rapid Kuantan.

#### 2.1.3 Responsiveness

Responsiveness refers to the willingness to help customers and provide them without delaying the schedule of travel time to the customer. Thompson and Schofield (2002) stated that if the responsiveness is not applied in the quality service it will lead to a bad perception and expectation from the consumer. Thus, employee's behavior is related to the consumers' perception and satisfaction.

Hypothesis 3. The responsiveness dimension is positively related to customer satisfaction at Rapid Kuantan

#### 2.1.4 Assurance

Assurance refers to the knowledge and courtesy of employees and the ability to inspire trust and confidence. (Buttle, 1996) claimed that the employee can be regarded as a driver of corporate marketing and financial performance. If customers are not comfortable with the employee, higher possibility is that the customer will

not return to the company again. Thus, if employees are not able to deliver better service to consumers or failed to inspire trust and confidence, it will have an adverse effect on the company.

Hypothesis 4. The assurance dimension is positively related to customer satisfaction at Rapid Kuantan

### 2.1.5 Empathy

Empathy refers to how the company cares and gives individualized attention to their customers, to make the customers feel extra valued and special. If the customers feel that they get individualized quality attention, more probably, they will return to the company for the service again. The less empathetic skills service providers, the more favorable behavioral intentions of customers towards the service provider.

Hypothesis 5. The empathy dimension is positively related to customer satisfaction at Rapid Kuantan

## 2.2 Customer Satisfaction

Consumer satisfaction, in its widest sense, is seen as being a complex process balancing consumer expectations with perceptions of the service or product in question. For service providers, consumer satisfaction leads to favourable results, such as higher rates of customer retention, positive word of mouth and higher profits (Zeithaml, 2000).

However, the definitions of satisfaction and service quality are not always clearly distinguished in the services marketing literature (Tomruk, 2000). In an attempt to provide conceptual and operational distinctions between the two, Boulding et al. (1993) propose that the ideal expectation (or should) be used as the referent in the case of service quality and the desirable expectation (or will) as the referent in the case of satisfaction.

A dominant view on this issue is that service quality represents a cognitive judgment, whereas satisfaction is a more affect-laden evaluation (Gooding, 1995). For instance, Tse and Wilton (1988) defines satisfaction as the consumer's response to the evaluation of discrepancy between prior expectations and the actual performance of the product as perceived after its consumption. Consequently, it suggests a causal order consistent with the traditional multi-attribute attitude model framework (Wilkie, 1986), that positions service quality as an antecedent to satisfaction. Cronin and Taylor (1992) suggested that quality of specific services has a significant effect on customer satisfaction. Other empirical evidence supporting this causal linkage between service quality and customer satisfaction include Woodside et al., (1989); Reidenbach and Sandifer-Smallwood, (1990); Bowers et al., (1994); etc. The first hypothesis of this study pertains to the causal link between service quality and passengers' satisfaction. Based on the predominant view in the literature, it is hypothesized that: perceived service quality will influence passengers' satisfaction. The derived conceptual framework is illustrated in Fig.1 where the perceptions of service quality are independent variables and passengers' satisfaction is dependent variable.

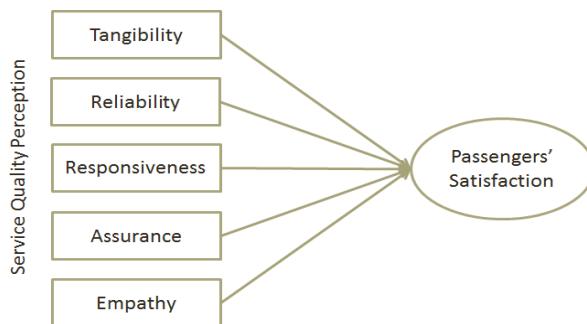


Fig.1 the Conceptual Framework

## 3 RESEARCH METHOD

### 3.1 Instrument

A structured questionnaire was developed to collect data. There are three parts. Part One is about demographic information of respondents, such as gender, age, nationality, race, highest educational level, the routes taken, etc. Part Two has five separate sections for the five independent variables respectively. Each section has 5 or 6 questions. Part Three consists of 5 questions measuring the dependent variable

customer satisfaction in service. The questionnaire provides dual languages (English and Bahasa Malayu). Respondents are required to complete all the answers. Participation is voluntary and anonymous. The feedbacks are promised to be kept confidential and the results are derived only for academic research. 5-point Likert scale is adopted with 1 “strongly disagree” and 5 “strongly agree”.

### 3.2 Sampling and Collection

The population are the passengers taking the three Rapid Kuantan routes: Route 100, Route 200 and Route 300. Permissions for survey were firstly obtained from the Rapid Kuantan. Then, early observations were conducted to assess the situation and to identify problems that may arise during the waiting time, traveling on the bus and the bus arrival in each destination. The preliminary data was also collected in all the aspects of the bus stop including the bus stop location, frequency of bus arrival at the bus stop to pick up passengers, the numbers of bus stop and the locations that have no bus stop. Then, the formal data collection was carried out by distributing the finalized questionnaires to the bus passengers who were waiting for the Rapid Kuantan at bus terminal and bus stops. Stratified random sampling technique was applied. After two weeks of collecting, 150 passengers, i.e. 50 from each route (Route 100, 200, and 300), participated in the survey.

### 3.3 Pilot Test

For this study, 20 samples of questionnaire had been distributed (pre-formal collection) 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 0.635 to 0.824, higher than 0.6 (Hair et al., 2006). Thus, all constructs are retained and reliable for further analysis.

Table 1: Pilot Test Results

Cronbach's Alpha	0.664	
Construct	Reliability	Item No.
Reliability	0.725	5
Tangibility	0.824	5
Responsiveness	0.805	6
Assurance	0.814	6
Empathy	0.762	6
Psg. Satisfaction	0.635	5

## 4 FINDINGS AND DISCUSSION

### 4.1 Demographics

Stradling et al. (2007) stated that transport patterns and choices vary with person's characteristics such as age, gender, etc. it can be seen in Table 2 that 57 (38%) male respondents participated the study while female 93 are female possessing 62%. Majority (76.6%) of the respondents is young at the age of 16-30 years old while the minority (5.4%) is over 40 years old. Almost all the respondents are local Malaysian (95.3%). Amongst all the respondents, more than half of them (53.3%) are Malay, 24.7% are Chinese and 28% are Indian. It also shows that 69 (46%) respondents are SPM/SPMV holders, 32 (21.3%) are Certificate holders, diploma 19.3%, and the rest 12.7% are Bachelor holders. In short, the respondents are mainly female, young in age, local, Malay and lower-than-diploma qualification.

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

Items	Frequenc y	%
Gender		
Male	57	38.0
Female	93	62.0
Age		
16 – 30 y	115	76.6
31 – 40 y	27	18.2

	41 and above	8	5.4
<b>Nationality</b>			
	Malaysian	143	95.3
	Others	7	4.7
<b>Race</b>			
	Malay	80	53.3
	Chinese	37	24.7
	Indian	28	18.7
	Others	5	3.3
<b>Qualification</b>			
	PhD	0	0
	Master	0	0
	Bachelor	19	12.7
	Diploma	29	19.3
	Certificate	32	21.3
	SPM/SPMV	69	46.0
	Others	1	0.7

## 4.2 Normality Test

Many of the statistical methods that will be applied require the assumption that a variable or variables are normally distributed. Thus to further test hypothesis, it is necessary to conduct normality test. Statistical methods include diagnostic hypothesis tests for normality, and a rule of thumb that says a variable is reasonably close to normal if its skewness and kurtosis have values between -1.0 and +1.0. Table 3 provides the results of normality test for the service quality dimensions and customer satisfaction. It demonstrates that all the skewness and kurtosis are within the criteria range which indicates that all the variables in the study are normally distributed. Figure 2 further illustrates the histograms of the distributions of the variables where a bell-shaped curve appears for each. Hence, it also witnesses the normal distributions of all the variables.

Table 3: Normality Test for Service Quality dimensions and Customer Satisfaction

	Reliability	Tangibility	Responsiveness	Assurance	Empathy	CS
Skewness	-0.475	-0.397	-0.558	-0.202	-0.026	-0.449
Kurtosis	0.749	0.571	0.631	-0.118	0.236	0.313

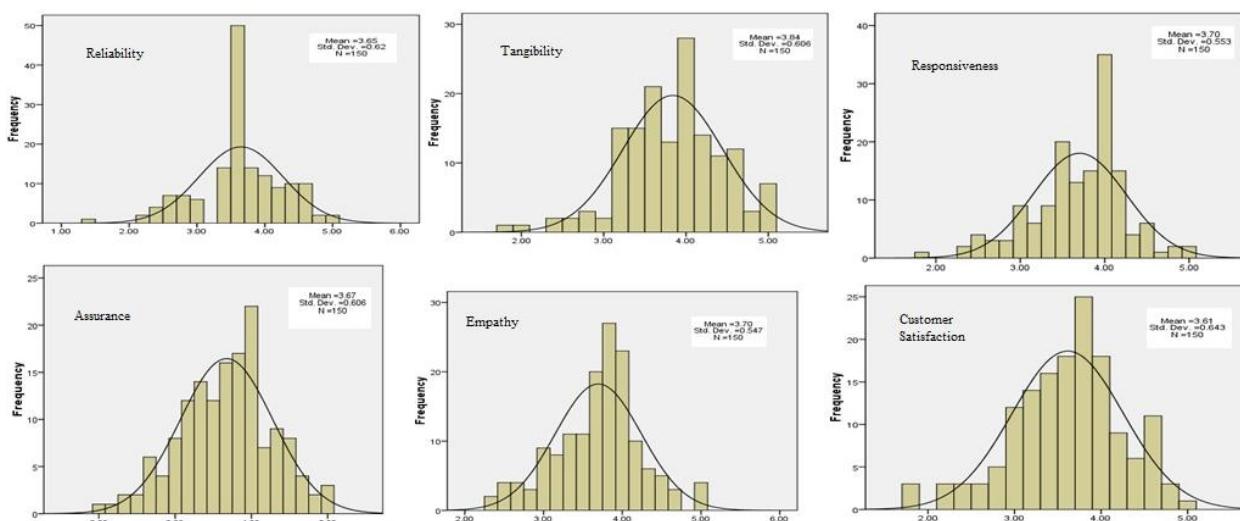


Fig. 2 Histogram of the Distribution of Service Quality Dimensions and Customer Satisfaction

#### 4.3 Hypothesis Testing (Correlation Analysis)

Pearson Correlation was carried out to investigate the relationship between, independent and dependent variables (Navidi, 2011). 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 4 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 Reliability ( $r=0.144$ ,  $\text{Sig.}=.079$ ) are significantly associated with the dependent variable at the significance level of 99%. Amongst those four, Empathy ( $r=0.525$ ,  $\text{Sig.}=.000$ ) is the strongest one that associates with the dependent variable, followed by Responsiveness ( $r=0.307$ ,  $\text{Sig.}=.000$ ), Assurance ( $r=0.305$ ,  $\text{Sig.}=.000$ ), and Tangibility ( $r=0.286$ ,  $\text{Sig.}=.000$ ).

Table 4: Correlations between the Service Quality Dimensions and Customer Satisfaction

		Reliability	Tangibility	Responsiveness	Assurance	Empathy
C S	Pearson Correlation r	.144	.286**	.307**	.305**	.525**
	Sig. (2-tailed)	.079	.000	.000	.000	.000

\*\*Correlation is significant at  $p<0.01$  (2-tailed)

#### 5 CONCLUSION

To conclude, this study attempted to measure the customer satisfaction from the service quality dimensions. By conducting survey questionnaire from 150 respondents from three routes of Rapid Kuantan---- a two-year-old public transport, the collected data was analysed by running SPSS 18.0. Based on the derived results, the service quality dimensions (reliability, tangibility, responsiveness, assurance and empathy) are verified to able to positively contribute to customer satisfaction at Rapid Kuantan, especially in the Route 100, 200 and 300. Thus, it implies that to enhance customer satisfaction, the Rapid Kuantan could exert more efforts on the five service quality dimensions, especially the weakest one Reliability. Thus, it also recommends studying the total effects of the five service quality dimensions towards customer satisfaction in the future which could enlighten more managerial implications.

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