



Customer Perception of Service Quality in Public Transportation

Keerthana K¹ and S V Praveen²

¹MBA student, Jerusalem College of Engineering, Chennai-600100, India

²Assistant Professor MBA, Jerusalem College of Engineering, Chennai-600100, India

DOI : <https://doi.org/10.55248/gengpi.5.1024.3023>

ABSTRACT:

This study explores consumer perceptions of service quality in public transport, focusing on key factors such as reliability, safety, comfort, and accessibility. Using a mixed-method approach, data were collected through surveys and analyzed using statistical tools like Chi-Square Test, ANOVA, and Regression Analysis. The study aims to identify the determinants of service quality and their impact on user satisfaction and the likelihood of continued usage. Findings will help transport authorities improve services and enhance public transport usage.

Keywords: Consumer Perception, Service Quality, Public Transport

Introduction:

Public transport is a vital part of the urban infrastructure, providing millions of people with a cost-effective and eco-friendly means of travel. However, its effectiveness and success are significantly influenced by the perceptions of its users regarding the quality of services it offers. Service quality in public transport is a multi-dimensional concept that encompasses various factors like reliability, safety, comfort, accessibility, punctuality, and customer satisfaction. Ensuring high service quality is critical for attracting more users and retaining existing ones, thus making the system sustainable in the long run.

In recent years, the growing urbanization, increasing environmental concerns, and congestion in cities have emphasized the importance of efficient public transport systems. However, many public transport systems face challenges such as overcrowding, delays, and inadequate facilities. As a result, consumers may perceive the quality of service negatively, which can lead to dissatisfaction and reluctance to use public transport.

This study aims to explore how consumers perceive the service quality of public transport and to understand the factors influencing their perception. A detailed analysis will help identify the gaps in service delivery and provide insights into areas for improvement. By focusing on consumer perception, public transport providers can enhance their service offerings, which could lead to higher satisfaction, increased usage, and overall better urban mobility.

Literature review:

Sinha, S., Swamy, H. S., & Modi, K. (2020) : The study aimed to identify the key factors that influence how consumers perceive the quality of public transport services, with a focus on attributes such as reliability, comfort, safety, and accessibility.

Raoniar, R., Rao, A. M., & Velmurugan, S. (2015) : This paper presents the definition and literature in respect of different measurement models towards the public transit performance.

Yaya, L. H. P., Fortià, M. F., Canals, C. S., & Marimon, F. (2015): Identify the demographic characteristics factors that may influence customer perceived service quality and as well as to identify any customers' perceptions differences between the subcategories.

Grujičić, D., Ivanović, I., Jović, J., & Đorić, V. (2014) : The goal of this paper is to identify the public transport system's service quality elements that should be primarily acted on, in order to increase the level of service quality from transport system users' (public transport users' and non-users') point of view, with minimal investment.

Fonseca, F., Pinto, S., & Brito, C. (2010) : The objective of the paper is to identify the determinants of service quality as well as its impact on the satisfaction of public transport commuters

Methodology:

This study combines both primary and secondary data sources. Primary data were collected through a well-structured questionnaire, employing a convenience Sampling Method to select 131 respondents. Secondary data were gathered from various reference materials, including books, journals, research articles, magazines, and websites. The research is classified under a descriptive research design, which focuses on describing the characteristics or behaviours of a phenomenon without manipulation or control. Descriptive research aims to provide an accurate representation of the subject under investigation and is commonly used to address questions such as "what," "who," "where," "when," or "how" about a specific topic.

Objectives:

1. To find the association between gender and frequency of using public transport.
2. To investigate the determinants of service quality
3. To find the likelihood to choose public transport

Data Analysis and Interpretation

Percentage analysis

Percentage analysis for the level of education.

TABLE 1

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	61	46.6	46.6	46.6
	Female	69	52.7	52.7	99.2
	Prefer not to say	1	.8	.8	100.0
	Total	131	100.0	100.0	

INFERENCE

From the above data it is inferred that out of 131 respondents, 52.79% are female and 46.6% are male and 0.8% preferred not to say

TABLE 2

Frequency of public transport use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	42	32.1	32.1	32.1
	Several Times a week	17	13.0	13.0	45.0
	Weekly	16	12.2	12.2	57.3
	Monthly	26	19.8	19.8	77.1
	Rarely/Never	30	22.9	22.9	100.0
	Total	131	100.0	100.0	

INFERENCE

From the above table it shows that out of 131 respondents 32.1% of people use the public transport daily, 13% of people use it several times a week, 12.2% of people use them once in a week, 19.8% of people use them once in a month and 22.9% of people use them rarely/never

TABLE 3

How would you rate the friendliness and helpfulness of public transport staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	14	10.7	10.7	10.7
	Good	54	41.2	41.2	51.9
	average	50	38.2	38.2	90.1
	Poor	8	6.1	6.1	96.2
	Very poor	5	3.8	3.8	100.0
	Total	131	100.0	100.0	

INFERENCE

From the above table it shows that out of 131 respondents 10.7% of people finds the public transport staffs friendliness and helpfulness are excellent, 41.2% users finds good, 38.2% of users finds average, 6.1% of users finds it poor and 6.1% of users finds it very poor.

TABLE 4

How would you rate the punctuality of public transport service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Punctual	7	5.3	5.3	5.3
	Generally Punctual	44	33.6	33.6	38.9
	Sometimes Punctual	58	44.3	44.3	83.2
	Often Delayed	16	12.2	12.2	95.4
	Very Delayed	6	4.6	4.6	100.0
	Total	131	100.0	100.0	

INFERENCE

From the above table it shows that out of 131 respondents 5.3% of people feel the public transport as very punctual, 33.6% users feel generally punctual, 44.3% of users feel sometimes punctual, 12.2% of users feel often delayed and 4.6% of users feel it very delayed.

TABLE 5

How comfortable do you find the seating and overall environment during your journey

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Comfortable	8	6.1	6.1	6.1
	Comfortable	42	32.1	32.1	38.2
	Neither Comfortable nor Uncomfortable	57	43.5	43.5	81.7
	Uncomfortable	16	12.2	12.2	93.9
	Very Uncomfortable	8	6.1	6.1	100.0
	Total	131	100.0	100.0	

INFERENCE

From the above table it shows that out of 131 respondents 6.1% of users finds the seating and overall environment as very comfortable, 32.1% users feels it comfortable, 43.5% of users feels it neither comfortable nor uncomfortable, 12.2% of users feels it uncomfortable and 6.1% of people feels it very uncomfortable

TABLE 6

How safe do you feel when using public transport

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Safe	8	6.1	6.1	6.1
	Safe	57	43.5	43.5	49.6
	Neutral	57	43.5	43.5	93.1
	Unsafe	9	6.9	6.9	100.0
	Total	131	100.0	100.0	

INFERENCE:

From the above table it shows that out of 131 respondents 6.1% of users feels very safe 43.5% users feel safe, 43.5% of users feels neutral and 6.9% of users feel unsafe in the public transport.

CHI-SQUARE ANALYSIS

To find out the association between gender and frequency of using public transport.

H0: There is no association between gender and the frequency of using public transport

H1: There is an association between gender and the frequency of using public transport.

Test Statistics

	Gender	frequency of public transport use
Chi-Square	63.267 ^a	17.282 ^b
df	2	4
Asymp. Sig.	.000	.002

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 43.7.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 26.2.

Inference:

From the above table, we can find that the significant value less than table value 0.05, so the Null hypothesis is rejected and Alternative hypothesis is accepted.

Therefore there is an association between gender and frequency of using public transport.

REGRESSION ANALYSIS

To find out several independent variables such as friendliness, punctuality, comfort, safety, accessibility influence the overall satisfaction with public transport service quality

H0: Each independent variable does not significantly predict or influence overall customer satisfaction with the quality of public transport service.

H1: At least one independent variable significantly predicts or influences overall customer satisfaction with the quality of public transport service.

ANOVA ^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	48.722	5	9.744	22.213	.000 ^b
Residual	54.835	125	.439		
Total	103.557	130			

a. Dependent Variable: How satisfied are you with the overall quality of public transport service

b. Predictors: (Constant), How would you rate the accessibility of public transport, How would you rate the friendliness and helpfulness of public transport staff, How would you rate the punctuality of public transport service, How comfortable do

you find the seating and overall environment during your journey, How safe do you feel when using public transport

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.102	.244		.418	.676	-.381	.585		
	How would you rate the friendliness and helpfulness of public transport staff	.188	.076	.191	2.488	.014	.039	.338	.718	1.394
	How would you rate the punctuality of public transport service	.138	.087	.140	1.585	.116	-.034	.311	.547	1.829
	How comfortable do you find the seating and overall environment during your journey	.078	.082	.082	.945	.347	-.085	.240	.557	1.795
	How safe do you feel when using public transport	.317	.110	.254	2.875	.005	.099	.535	.541	1.848
	How would you rate the accessibility of public transport	.254	.113	.206	2.239	.027	.029	.478	.498	2.007

a. Dependent Variable: How satisfied are you with the overall quality of public transport service

INFERENCE:

From the above table, we find the significant value is less than 0.05, we reject the **null hypothesis (H₀)**, meaning at least one of the factors (friendliness, punctuality, comfort, safety, or accessibility) significantly affects overall customer satisfaction with public transport.

Results

The study examined customer perceptions of public transport service quality, focusing on factors such as staff friendliness, punctuality, comfort, safety, and accessibility, along with the association between gender and frequency of transport use. The Chi-Square test ($\chi^2 = 17.282$, $p = 0.002$) revealed a significant association between gender and public transport usage, indicating that gender influences how frequently individuals use public transport. The regression analysis showed that **friendliness of staff** ($B = 0.188$, $p = 0.014$), **safety** ($B = 0.317$, $p = 0.005$), and **accessibility** ($B = 0.254$, $p = 0.027$) were significant predictors of overall satisfaction, while **punctuality** ($B = 0.138$, $p = 0.116$) and **comfort** ($B = 0.078$, $p = 0.347$) were not statistically significant. This suggests that customer satisfaction is driven mainly by staff interactions, safety, and accessibility, rather than punctuality or comfort. These findings emphasize the importance of enhancing customer service, improving safety measures, and increasing accessibility to improve overall satisfaction with public transport services.

Conclusion

The research identified that **staff friendliness**, **safety**, and **accessibility** are the most critical factors influencing customer satisfaction, with statistical significance validated through regression analysis. Interestingly, while **punctuality** and **comfort** are often considered key performance metrics, this study found that they are less influential in shaping overall satisfaction.

Furthermore, the significant association between **gender** and the frequency of public transport use, as indicated by the Chi-Square test, highlights the need for a deeper understanding of gender-specific preferences and barriers. The findings suggest that to enhance public transport service quality and increase usage, service providers should prioritize improving staff-customer interactions, ensuring passenger safety, and enhancing accessibility. These

conclusions contribute to the growing body of research on public transport service quality and offer actionable recommendations for improving the customer experience.

References:

1. Grujičić, D., Ivanović, I., Jović, J., & Đorić, V. (2014). Customer perception of service quality in public transport. *Transport*, 29(3), 285-295.
2. Fonseca, F., Pinto, S., & Brito, C. (2010). Service quality and customer satisfaction in public transports.
3. Amponsah, C. T., & Adams, S. (2016). Service quality and customer satisfaction in public transport operations. *International Journal of Services and Operations Management*, 25(4), 531-549.
4. Yaya, L. H. P., Fortià, M. F., Canals, C. S., & Marimon, F. (2015). Service quality assessment of public transport and the implication role of demographic characteristics. *Public Transport*, 7, 409-428.
5. Sinha, S., Swamy, H. S., & Modi, K. (2020). User perceptions of public transport service quality. *Transportation Research Procedia*, 48, 3310-3323