

Measuring Transportation Service Quality: A SERVQUAL-Based Review and Emerging Trends

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Abstract—Service quality is a critical determinant of customer satisfaction and operational success in the transportation sector. The SERVQUAL model was created by Parasuraman, Zeithaml, and Berry in 1988, and it is frequently used to assess the quality of services in five dimensions: assurance, responsiveness, tangibility, empathy, and dependability. This review paper examines how these characteristics affect customer satisfaction and service efficiency by reviewing the current state of research on the use of SERVQUAL in transportation services from the period of last five years. According to studies, passenger satisfaction is significantly impacted by responsiveness and reliability, whereas service perceptions are influenced by tangibility and assurance. The necessity of implementing sustainability, accessibility, and safety within SERVQUAL is highlighted by emerging trends. Future research on digital transformation, smart mobility, and post-pandemic service expectations is recommended by the review, which also identifies research needs. To improve service quality and the passenger experience, this review provides valuable information for researchers, transportation companies, and policymakers.

Index Terms—Service Quality, SERVQUAL Dimensions, Transportation Sector

I. INTRODUCTION

SERVICE QUALITY is becoming a key factor in determining both customer satisfaction and business success in today's fiercely competitive industry. Businesses in a variety of sectors aim to provide excellent services that either meet or beyond the expectations of their customers.

SERVICE QUALITY DIMENSIONS

(Zeithaml et al., 1988) created the SERVQUAL model, which is a popular framework for evaluating

service quality in a variety of businesses. Reliability, assurance, tangibleness, empathy, and responsiveness are its five main components, and each is essential in influencing how customers view the calibre of services. The importance of these characteristics has been confirmed by numerous studies in a variety of service industries, including retail, banking, healthcare, and hospitality (Ladhari, 2009), (Seth et al., 2005).

DIMENSION	DEFINITION
Reliability	The ability to perform the promised service dependably and accurately.
Assurance	The knowledge and courtesy of employees and their ability to convey trust and confidence.
Tangibility	The appearance of physical facilities, equipment, personnel and communication materials.
Empathy	The provision of caring, individualized attention to customers.
Responsiveness	The willingness to help customers and to provide prompt services.

Source: (Zeithaml et al., 1988)

RELIABILITY- Research indicates that reliability is frequently the most important factor in determining customer satisfaction, especially in sectors where accuracy and trust are crucial, such as banking and healthcare (Cronin & Taylor, 1992), (Kang & James, 2004).

ASSURANCE- It includes things like staff proficiency, courtesy, and the company's dedication to customer safety. In sectors like financial services, healthcare, and legal consultation where clients perceive significant risks, assurance is especially

important (Arasli et al., 2005). Customers feel more secure and become more devoted to the service provider when staff members exhibit professionalism and experience (Ladhari, 2009).

TANGIBILITY- According to Parasuraman et al. (1988), tangible dimensions of service delivery include infrastructure, tools, staff appearance, and communication materials. Consumers frequently equate the overall quality of the service experience with the calibre of the tangible components.

EMPATHY- Research indicates that when customers feel valued and understood, their satisfaction and loyalty increase significantly (Seth et al., 2005). Empathy is a reflection of the personalized attention and care that a service provider offers to its customers (Zeithaml et al., 2002). It includes factors such as understanding customer needs, offering individualized service, and ensuring customer convenience.

RESPONSIVENESS- According to research, responsiveness has a significant role in determining customer satisfaction in sectors like telecommunications, e-commerce, and customer assistance where efficiency and speed are crucial (Kang & James, 2004). Reduced customer retention rates and a bad reputation for the brand are common outcomes for companies that do not promptly resolve consumer problems (Arasli et al., 2005).

II. LITERATURE REVIEW

Sr. N o.	Author and Year	Title	Service Quality Dimensions
1	(Nyorak et al., 2024)	Application of the SERVQUAL Model to evaluate the service quality of Arunachal Pradesh State Transport Service	Tangibles, Reliability, Responsiveness, Empathy and Assurance
2	(Kumar Yadav et al., 2024)	Service Quality and Personal	Reliability, responsiveness,

		Attitudes as Predictors of Overall Satisfaction with Public Buses	assurance, comfort
3	(Alfarizi, 2023)	Assessing the Relationship Between Customer Satisfaction and Digital Service Retention: Evidence from Indonesian Islamic Banking	Ease of use, efficiency, interoperability, privacy/security, responsiveness, reliability, service cost, service portfolio
4	(Wisutwattanasak et al., 2023)	Examining the Impact of Service Quality on Passengers' Intentions to Utilize Rail Transport in the Post-Pandemic Era	Safety, hygiene, punctuality, reliability, service efficiency
5	(Rakibul et al., 2023)	Identifying Passengers' Satisfaction in Transportation Quality: An Empirical Study in Bangladesh	Vehicle condition, fare, staff service, security, schedule
6	(Manandhar, 2023)	Passengers' Satisfaction Towards Service Quality with Public Transport	Accessibility, comfort, cleanliness, safety

		on in Kathmandu Valley	
7	(Ikemefuna Njelita & Chika Opara, 2023)	Influence on Reliability and Responsiveness in Service Quality	Reliability, responsiveness, commuter satisfaction
8	(Jeremy Bagwell, 2023)	Factors Affecting Service Quality in Public Bus Transportation in Sri Lanka	Vehicle safety, travel time, frequency, fare level, accessibility
9	(Muhtasim et al., 2022)	Customer Satisfaction with Digital Wallet Services	Transaction speed, authentication, encryption, software performance, privacy, information provided
10	(Demirel, 2022)	The Effect of Service Quality on Customer Satisfaction in Digital CRM	Reliability, enthusiasm, sensitivity, trust, tangibles
11	(Dhevi Tharmalingam et al., 2022)	Customer Satisfaction on Public Transportation in Penang, Malaysia	Reliability, accessibility, safety, security
12	(Sridevi, 2021)	A Study of Service Quality and Customer Satisfaction	Late-night service, reliability, customer perception

		in Public Transport with Special Reference to Coimbatore	
13	(Hasan et al., 2021)	Public bus transport service satisfaction: Understanding its value to urban passengers towards improved uptake	Value for Money (VfM), Level of Service (LoS), Mode Choice
14	(E. et al., 2021)	Service Quality and Passengers' Loyalty of Public Transportation Companies	Safety, Comfort, Drivers competence, Travel time, Vehicle cleanliness
15	(Laisak et al., 2021)	The Effect of Service Quality on Customers' Satisfaction of Inter-District Public Bus Companies in Sarawak, Malaysia	Tangibility, Reliability, Responsiveness, Assurance, Empathy
16	(Eboli & Mazzulla, 2021)	Customer Satisfaction as a Measure of Service Quality in Public Transport Planning	Accessibility, reliability, comfort, safety
17	(Zouari & Abdelhedi, 2021)	Customer Satisfaction in the	Confidence, compliance, digitalization

		Digital Era: Evidence from Islamic Banking	, tangibles, human skills
18	(Kaur et al., 2021)	Digital Banking in Northern India: The Risks on Customer Satisfaction	Reliability, tangibility, responsiveness, assurance, empathy
19	(Vasilenko et al., 2021)	Digital Technologies in Quality and Efficiency Management of Transport Service	Digitalization, efficiency, safety, reliability, service integration
20	(Atombo & Dzigbordi Wemegah, 2021)	Indicators for Commuter's Satisfaction and Usage of High Occupancy Public Bus Transport Service in Ghana	Affordability, availability, security, reliability
21	(Joseph Enimola et al., 2021)	Analysis of Public Transport Service Quality and Satisfaction of Customers in Kogi State	Reliability, service frequency, fare level, safety
22	(Atuk, 2021)	Service Quality and Passenger Satisfaction of Public Road	Reliability, responsiveness, empathy, assurance

		Transportation Firms	
23	(Hashim et al., 2020)	Assessing the Service Quality and Passenger Satisfaction towards SMART Selangor Buses Using SERVQUAL Model	Tangibles, Reliability, Responsiveness, Empathy and Assurance
24	(Alcura et al., 2020)	Impact Score Technique And Servqual Comparison For Public Transportation Service Quality	Tangibles, Reliability, Responsible behaviors, Confidence, Empathy
25	(Naveen & Gurtoo, 2020)	The Cause Effect Relationship Model of Service Quality in relation with overall satisfaction	Empathy, Information Reliability, Luggage Assurance, Responsiveness, Service Time Reliability, External Tangibles, Tangibles
26	(Żebrucki Et Al., 2020)	Customer Satisfaction Survey of Urban Public Transport	Frequency, punctuality, technical condition, seating availability, air conditioning
27	(Olsson et al., 2020)	Travel and Life Satisfaction - From Gen	Public transport quality, security/safe

		Z to the Silent Generation	ty, travel satisfaction
28	(Munim & Noor, 2020)	Young People's Perceived Service Quality and Environmental Performance of Hybrid Electric Bus Service	Tangibles, empathy, perceived environmental performance
29	(Frinaldi et al., 2020)	The Effect of Driver Service Quality on Passenger Satisfaction in Public Transportation	Driver behavior, service quality, traffic rules, safety, reliability
30	(Henmaidi et al., 2020)	Evaluation of Service Quality of Public Transportation	Punctuality, reliability, safety, comfort, accessibility

III. CONCLUSION

SERVQUAL is a popular and useful methodology for evaluating service quality in the transportation industry, according to the literature review. Customer satisfaction and service perceptions are regularly found to be influenced by the qualities of responsiveness, tangibility, empathy, assurance, and reliability. According to the results from various studies, passenger satisfaction is primarily influenced by responsiveness and reliability, whereas perceptions of service quality are significantly influenced by tangibility and assurance. Although the model offers insightful information, some studies recommend changes to better-fit transportation services, such as adding factors for environmental sustainability, safety, and accessibility. Future studies should examine these adjustments and take into account new issues facing

the industry, like digitalization, smart transportation solutions, and service expectations following a pandemic. Policymakers and transportation service providers can use the relevant information from this structured study to improve customer experience, guarantee long-term customer retention, and improve service delivery.

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