

## UNDERSTANDING THE DETERMINANTS OF QUALITY ASSESSMENT OF IN ROAD PUBLIC TRANSPORTION-A SEVQUAL APPROACH

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### **Introduction**

Typically service is an element that is intangible in nature and can be delivered out of an interaction between the provider of service and the customer or through the technical systems of the service provider to the customer . Because of the inherent characteristics of the service, it varies from person to person and system to system. Hence, determining quality in service is indescribable for a particular person or system. According to Philip Kotler and Gary Armstrong 'service quality' is "the ability of a service firm to hang on to its customer”

### **Need and significance of the study**

Public transportation is of the important subsectors of the economy which directly as well as indirectly contributes to the growth of the economy as well as to achieve balanced regional development. One of the prime and important function of public transportation is to deliver the required quality in the service delivered to its clients(passengers). Service quality is directly proportional to the level of satisfaction. However, the increasing needs of the passengers provide the scope of enormous opportunities for public transport corporations to develop the passenger base and to retain. the existing passengers. Passenger service quality is growing importance now a day’s drawing the attention of practitioners, academicians and researchers.

Public transportation is the prime carrier of the mobility system in the developing economy like India. Focusing on service quality in public transportation is significantly important besides giving importance on infrastructure development, fleet development and cost effectiveness. In order to achieve high quality level, service providers must prioritize the requirements of the customers. Through this research, certain focused areas to deliver service quality such as Tangibility Reliability(Making the service reliable to the customers), Responsiveness(staff behavior, quick response), Assurance(solving passenger problems, punctuality),Empathy(considering passenger interests, concessions),Accessibility(Timings, complaint mechanism),Pricing, Communication systems will be identified.

## **Objectives of the study**

1. To examine and observe service quality in the public transportation sector
2. To generate a suitable model for minimizing the gap in service quality
3. To offer suggestions for better qualitative service delivery in public transportation sector.

## **Review of Literature**

An efficient transport system is prerequisite for the development of any country by integrating various geographical regions with the means of transporting goods and movement of people. Among all the means of transportation, bus transportation enables the frequent movement of people. Silcock(1981) in his study on public transport industry expressed that accessibility, reliability, comfort, convenience and safety are the major dimensions in evaluating the service quality. According to Middleton(1998), internal factors of the service provider and external factors related to the environment will have influence on perceived service quality. Mozulla and Laura(2006) through their research propounds the need to identify the importance of finding the attributes of service quality to reach the satisfaction at global levels.

Tripathi and others (2012) expressed that despite of increase in the travel demand, there is a decline in usage of public transport systems have to compete with para transport systems and private transport systems. Yaya, Fortia and others(2015) in their research on service quality assessment of public transport and the implication role of demographics expresses that while analyzing the service quality demographic factors play a crucial role in perceived service quality. According to Shreya Das and Debapratim(2015), assessment of Level of service(LOS) is an effective tool in understanding the customer service perception. The researchers have also established that there is a difference in the service quality perception between developed countries and developing countries.

Roberta Guglielmetti Mugion, Martina Toni and others(2018) have opined that public sector transport companies need to introspect sensitivity towards service quality from time to time and service quality has direct effect on tension to use public transport. De Ona J(2021) while investigating the mediating role of satisfaction in public transport found that the intermodal service transport with frequency, punctuality and speed are the attributes that appraise the service quality. Ranadheer, Motawa and others while measuring the commuters perception using SERVQUAL approach indentified that service providers can meet the expectations of the customers only when they are too sensitive to the customer issues.

## **.Determinants of service quality in public transportation system**

A service is an act or performance offered by one party to another. Services are economic activities which create value and provide benefits for customers. A service is a type of economic activity that is intangible, is not stored and does not result in ownership. Quality is an abstract term is an act of delivering a good or service which meets the expectations of the

customers. Service quality is the consumer's judgment about an entity's overall excellence or superiority. Service quality is determined by the differences between customers' expectations of service provider's performance and their evaluation of the services they received.

### **Service quality measurement**

Many researchers have recognized the need to develop distinct and valid measures of service quality. In management literature, different models, technical and functional quality model by Grönroos (1984); GAP model by Parasuraman et al. (1985); attribute service quality model by Haywood-Farmer (1988); synthesized model of service quality by Brogowicz et al. (1990); attribute and overall affect model by Dabholkar (1996); the P-C-P attributes model by Philip and Hazlett (1997); internal service quality model by Frost and Kumar (2000); a three dimensional approach comprising of physical quality, interactive quality, and corporate quality by Lehtinen and Lehtinen (1991) have been developed in order to find the determinants of the concept of service quality as well as the appropriate quality measurement techniques.

In this study, a model is proposed with 09 dimensions (36 variables) to measure the service quality in road public transportation.

### **Dimensions of service quality with reference to public road transportation system**

Service quality determines the efficiency of the system in which services are organized and delivered. Customer satisfaction and retention are the outcomes of service quality. There is always a proportionate relationship between service quality and customer satisfaction. At any point in time in a firm, service performance determines the customer satisfaction and Service quality is its driver. Parasuraman, Valarie Zeithaml, and Leonard Berry identified five specific dimensions of service quality that apply across a variety of service contexts. Originally Ten dimensions were proposed under 44 items, and later, these dimensions were pooled to Five dimensions. Further in order to understand the significance of the service quality in public transportation sector, Four more dimensions are considered. Finally, in order to propose a model to evaluate the service quality in public transportation, Nine dimensions are defined viz., Tangibility, Reliability, Responsiveness, Assurance, Empathy, Pricing, Accessibility, Competency and Technology.

### **Tangibles: Representing the Service Physically**

Tangibles are defined as the appearance of physical facilities, equipment, personnel, and Communication materials. Tangibles provide physical representations or images of the service that customers, particularly new customers, will use to evaluate quality. In public transportation elements such as well maintenance of buses, having good infrastructural facilities such as good bus stations, well maintenance of bus stops, providing comforts and amenities while travelling and neat, professional appearance of staff will play an important role in delivering quality in service.

### **Reliability: Delivering on Promises**

Reliability is defined as the ability to quickly and accurately execute the promised service. Reliability, in its broadest sense, means that the company fulfills its promises in delivery, provision of services, problem-solving, and Pricing. Reliability reflects the speed of service and accuracy of service delivery. Reliability in public transportation can be seen in providing accurate information about bus service, making the buses available to every nook and corner, availability of bus services during peak hours, frequency of buses in high priority routes, centralized reservation systems. Reliability plays an important role in service delivery.

### **Responsiveness: Being Willing to Help**

Responsiveness is nothing but a willingness to help customers and provide prompt service. This aspect emphasizes to deal with customer requests, questions, grievances and issues with care and timeliness. Responsiveness is conveyed to consumers by the length of time they have to wait for help, the way the questions answered or the way how issues are taken care of. Having courteous bus staff, responding immediately to the passenger problems if any, communicating information through SMS and mails, most importantly an attitude to help customers. Finally spontaneous responsiveness from the staff in case of service failures such as bus breakdowns, cancellation of services. Responding to the issues of passengers during the journey plays an important role in transport service quality.

### **Assurance: Inspiring Belief and Self-Assurance**

Assurance is defined as employees' courtesy towards customers and the capability of the organization and its employees to stimulate trust and self-confidence. This dimension is predominantly significant for services that customers perceive as high risk and in which they have a dilemma on outcome like waiting for longer periods for a bus service. Assurance includes instilling confidence in customers, prioritizing the passenger safety during the journey, consistency in operating bus services in various routes, maintenance of safety precautions like sanitization and first aid facilities and well trained drivers to ensure safety of passengers. It is important in service quality that the assurance function must be positively perceived by the customers.

### **Empathy: Treating Customers as Individuals**

Empathy is ability to think from other person's point of view. The crux of Empathy is to express that customers are special and unique and that their needs are understood utilizing tailored or differentiated service. Empathy in public transportation includes designing buses according to the needs of customers , prioritizing safety to female passengers, Signage and display in the bus to communicate the customers about the stoppages, operating special services as and when needed by the customers and availability of advance reservation systems

### **Competency: The abilities of service providers**

Competency is the extent to which service providers are capable enough in delivering services to the customers. This dimension is vital in passenger public transport. It includes competency of bus staff in discharging their duties, reaching destination on time, the ability to deal with difficult passengers, ability to incorporate technology and innovation in bus service. Also it is important how effectively staff will manage difficult customers and their problems. Competency levels of staff members is a key factor in service delivery.

### **Pricing: Monetary value to the customer**

Pricing is an important element in service delivery process through which the service provider needs to deliver value to the money paid by the customer. Value is an abstract concept which can be understood through comfort what extent service provider deliver. Value can also be interpreted through the psychological comfort what a consumer feels. In public transportation, Pricing component can be better understood through reasonable ticket fare, competitive price vis-à-vis private operators, concessional fare for students and senior citizens. Also to what extent, the fare is dynamic in addition to the luggage charges. Passenger transport is a competitive market where private operators are competing with public transportation providers directly with the price. Passenger transport market is a highly price sensitive market. In addition to this, online apps such as Redbus, Abhibus, Make my trip are providing direct monetary benefits to the customers.

### **Accessibility: The extent to which the services are accessible to customers**

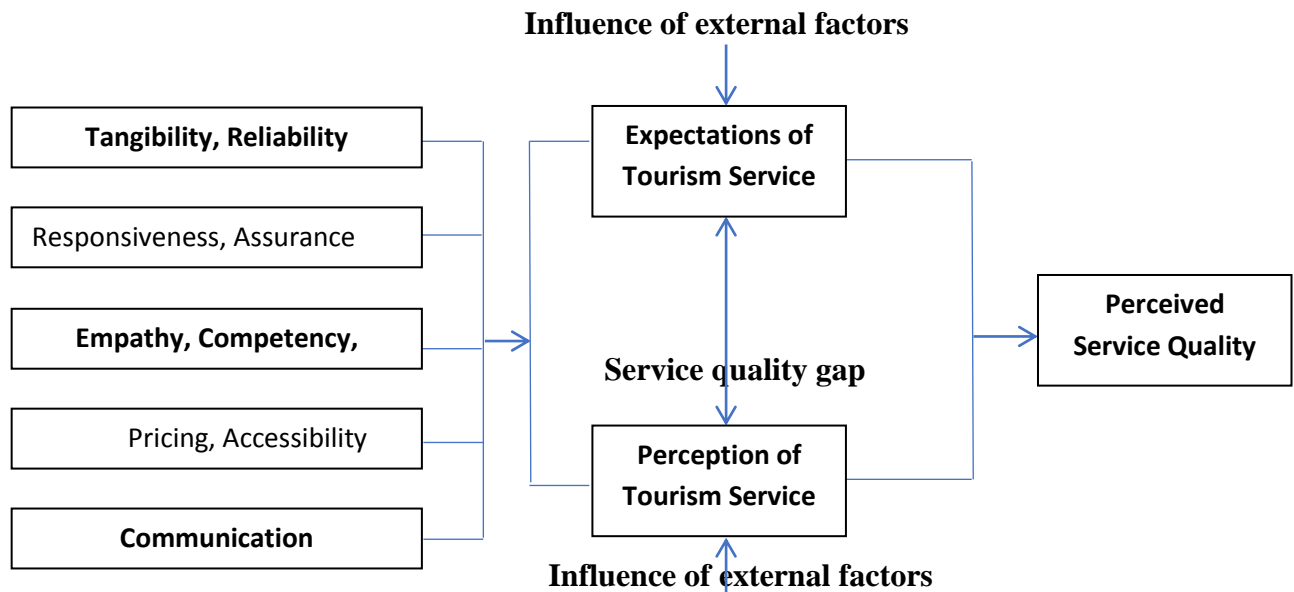
Generally services are made available for the customers by the service providers. But, the extent to which services are made accessible to the customers will become a key factor in service quality. Similarly in public transportation, accessibility is an important element. It includes accessibility of bus stops to the passengers, accessibility of bus timing to the needs of the customers. Also availability of multiple booking points to purchase the bus tickets rather than going to the bus station to buy the tickets is also an important element. Along with this, with the advancement in the usage of smart phones by everyone, making the bus tickets available on e commerce websites such as Redbus, Abhibus and Paytm will make the public transportation more closer to the customer. Apart from these elements, arrangements of complaints and suggestion boxes at bus stops, bus stations and even in buses may enable customers to share their feed back if any. These areas will make the service provider to deliver the services effectively to the target customers.

### **Communication- Connecting the service to customers**

Until and unless the services are communicates, service providers cannot reach the target customers. In public transportation, continuous announcements in the bus stations and bus stops relating to bus timings and stoppages are critical. Accordingly messaging the passengers about the reservation status, service timings is also a critical component. In addition to this, making information relating to bus services available in the websites and mobile apps is also a concern. Similarly external communications such as advertisements and

other social media is also a grave area of communication. At the same time, staff coordination in delivering the service to the passengers must be an important area in service delivery.

### A Model on Public transport service quality



### Suggestions and Managerial implications

Passenger road transportation increasingly concerned with not only retaining the existing passengers but the ways to make them happy and safe with their travel besides focusing on new customers. As alternative models of transportation also available besides own transportation, delivering quality in service is a growing concern. Delivering quality in service is a continuous journey from the assessment of current levels of service to deliver the service to the augmented levels. One of the key issues in front of the public road transport providers is that positioning their service as worthy enough in the market place. Because still it is believed in many parts that public road transportation is the transportation system for the poor person. Public transport service providers must understand which aspects or dimensions of service quality results to deliver greater value to the passengers and will improve the system of service delivery. People at the higher level must analyze the relationship between customer satisfaction and service quality as the former is the antecedent of the latter.

Any public transportation system should address the infrastructural needs, safety needs and social needs of the customers. The implications of this study may provide the elements upon which the service providers can build models to enhance the service delivery which can meet the expectations of the customers.

### References

1. Silcock, D.T. (1981), Measures of operational performance for urban bus services, *Traffic Engineering and Control*, Vol. 22 No12, pp. 645-8.

2. Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of marketing*.
3. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, 49(4), 41-50.
4. Middleton, W.D. (1998a). Why some voters say yes; why some say no. *Railway Age*, 199(2), G1-G2.
5. Eboli, L., & Mazzulla, G. (2008). A stated preference experiment for measuring service quality in public transport. *Transportation planning and technology*, 31(5), 509-523.
6. Randheer, K., Al-Motawa, A. A., & Vijay, P. J. (2011). Measuring commuters' perception on service quality using SERVQUAL in public transportation. *International journal of marketing studies*, 3(1), 21.
7. Tripathi, V., Kumar, A., & Nema, G. (2012). Measuring Service Quality in India Public Transport System: A Comprehensive review. *Asia-Pacific Marketing Review*, 1(1), 113-119.
8. Das, S., & Pandit, D. (2015). Determination of level-of-service scale values for quantitative bus transit service attributes based on user perception. *Transportmetrica A: Transport Science*, 11(1), 1-21.
9. Yaya, L.H.P., Fortià, M.F., Canals. (2015). C.S. et al. Service quality assessment of public transport and the implication role of demographic characteristics. *Public Transp* 7, 409–428
10. De Oña, J. (2021). Understanding the mediator role of satisfaction in public transport: A cross-country analysis. *Transport policy*, 100, 129-149.