



## SIGNIFICANCE OF SERVICE QUALITY IN TNSTC WITH SPECIAL REFERENCE TO TIRUNELVELI AND NAGERCOIL, MADURAI DIVISION.

Dr. C. Eugene Franco<sup>1</sup> and J. Shyla<sup>2</sup>

<sup>1</sup>Associate Professor of Commerce, St.Xavier's College, Palayamkottai.

<sup>2</sup>Research Scholar & Head, Dept. of Commerce, Malankara Catholic College, Mariagiri.



### ABSTRACT:

A service is any act or performance that one part can offer to another that is essentially intangible and does not result in the ownership of anything. Service Quality is an assessment of how well a delivered service conforms to the client's expectation. In India about half of the economy is now in the services sector. In service marketing, managing service quality is very important. The main objective of this research is to study the significance of Service Quality in Tamilnadu State Transport Corporation with reference to Tirunelveli and Nagercoil, Division. Generally passenger compare the perceived service with the expected service. If the perceived service falls below te expected service, passengers are disappointed. If the perceived service meets or exceeds their expectations passengers will continue of use the same service provider.

**KEYWORDS :** Service Quality, Public Transport, Quality criteria, Significance .

### INTRODUCTION:

It is a fact that no bus transport business can exist without passengers. In every bus transport service related businesses, there is a need to develop relationship with the passengers and with the service providers to satisfy passengers' day-to-day service quality requirements. The owners of the different bus transport industries compete with each other to offer maximum satisfaction to passengers. Thus passengers' satisfaction, a business term is a measure of how services are supplied by an industry to meet passengers' expectation. Further, it focuses on the measures taken by the bus transport industries to improve the level of satisfaction of passengers and to avert their problems to retain the loyalty of the passengers. The main aim of this study is to compare the services provided by public and private sector bus transport industries and to evaluate their efficiency to satisfy the needs of the passengers in an effective way. Also this study attempts to elicit the opinion of the passengers about the quality and types of services provided and grievances if any.

However, so far in developing countries, public transport services have provided a substandard quality and limited capacity. A lack of awareness for the perceived quality and the missing quality management system are main causes of the poor quality of public transport services and the rapid growth of individual motorized traffic in these cities. Several developing cities are facing a declining trend of public transport share (Parikesit and Susantono, 2013). For examples, bus shares in Jakarta (Indonesia) and Bangkok (Thailand) have decreased from 50% to 20 and 30%, respectively, for the past decade. In Hanoi and Hochiminh City (Vietnam), despite service improvements and continuously increased subsidies, bus shares increased modestly from 3% to 10% during the same period (Parikesit and Susantono, 2013; Tuan, 2012). While there is a lot of emphasis on new and expensive infrastructure development to meet the supply gap in public transport, softer and often low-cost interventions like improving service quality and carefully considering customer perception are totally neglected. There is no mechanism that exists to assess if the available pubic modes are fulfilling their expected roles and meet various the standards regarding

accessibility, affordability, convenience, enjoyment, integration, reliability, safety, comfort and so on. In most cases, there are no standards (Chhavi Dhingra, 2011). Experiences from developed countries show that to compete against private transport, public transport must continuously improve its quality and enhance the service it offers to regain passengers (Morichi and Acharya, 2013). This means that public transport service must safeguard commuters' interest by standards. From transport authority perspective the quality standard is a guideline for securing the provision of public transport services. Understanding public transport users' behavior and their meet and expectation for public transport service is an essential issue for establishing quality standards. Both transport operators and authorities need to understand which quality attributes are the most important that are perceived by current and potential users. However, the specification of a set of quality attributes for all developing cities is impossible as the needs and expectations of users vary significantly among different countries as well as different segments of the market (Quattro, 1998).

## 2. THEORETICAL FOUNDATION AND REVIEW OF LITERATURE

Service quality for public transport is measured by qualitative and quantitative criteria. When dealing with public transport service quality, EN 13816:2002 developed a set of quality criteria which were organized into eight categories: the first two categories, availability and accessibility, mentioned the public transport provision in more general terms, while the next five present the service quality in detail, the last category describes the environmental impact on the community at large (EN 13816:2002). Recently, quality criteria from EN 13816:2002 have been widely applied in almost public transport systems.

Eboli and Mazzulla (2011) investigates that the aspects mainly characterizing public transport service, especially bus service, are service availability, service reliability, comfort, cleanliness, safety and security, information, customer care and environmental impacts.

According to Vuchic (2005), there are several areas of concern of public transport to customers, namely availability, accessibility, information, travel time and reliability, comfort and convenience of service, safety and security, and environmental impact. This author proposes an enough comprehensive classification of performance criteria: transport quantity or volume; system and network performance; transport work and productivity; system efficiency criteria; consumption rates and utilization criteria.

In accordance with eight quality categories in EN 13816:2002, the TRB (2003) proposes 31 criteria and more than 400 performance indicators. TRB (2003) also considers the needs of data collection, potential strengths and weaknesses for particular applications. At the earlier efforts, the TRB (1999) suggests a range of simple disaggregate performance measures which can be used for measuring the ability of a public transport agency to offer services that meet customer expectations. These performance measures are quantitative measures expressed as a numerical value, which provides no information by itself about how "good" or "bad" a specific result is, and for this reason it must be compared with a fixed standard or past performance.

Although someone may not be so happy with quality standards defined by EN 13816:2002, but almost people agreed that these quality criteria are suitable not only for a developed countries, like European countries, but they can be properly applied in any country, including developing countries. Therefore, these criteria are firstly invited for further works in establishing quality standards for public transport in developing countries. These criteria can refer to the user, transport operator, and transport authority's perception. User's viewpoint reflects the user's perception of the received service. Transport operator point-of-view reflects performance of public transport in normal operating conditions. Meanwhile, transport authority's point-of-view measure public transport quality in both aspects: (i) the level of quality that is achieved in normal operation conditions, and (ii) public transport's role in meeting broad community objectives.

Assessment of public transport quality from user viewpoint includes a number of qualitative attributes (parameters). Table 1 illustrates a list of quality attributes that recommended by TRB (1999) in

light of the eight categories of quality of service determined by the EN 13816:2002. Meanwhile, in order to measuring and ensuring continuous improvement of public transport quality, performance criteria are an essential tool for transport operator and on focusing their strategic objectives.

### **PUBLIC TRANSPORT SYSTEM IN INDIA**

After the Independence of India, transport became an important element for the country's economic development. Due to liberalization of economy, in the year 1990, the country's internal infrastructural growth has developed in a quicker pace. The result of infrastructural development is the tremendous growth of different modes of transport by land, water and air. The automobile industries are also highly developed. The public transportation is the primary mode of transportation for the majority of the Indian population. Public transport systems in India are among the most frequently and widely used transports system in the world.

In spite of these developments in transportation sector, the public and private sector bus transport service industries are still facing many challenges with a lot of hurdles because of outdated infrastructural system, lack of supervision, and population explosion. The demand for public transport, its infrastructural development and services are increasing day-by-day. But the infrastructural facilities are not sufficient to meet the demands of the country's population.

### **TAMIL NADU STATE TRANSPORT CORPORATION (TNSTC)**

Tamil Nadu State Transport Corporation (TNSTC) is a government owned bus transport unit. Cheran Transport Corporation Limited was incorporated as a Company in 1972 and it commenced its services from 1972 with 110 buses. Tamil Nadu State Transport Corporation (Coimbatore Division III) Ltd., has been merged with Tamil Nadu State Transport Corporation (Coimbatore Division I) Ltd., with effect from 2000. The Tamil Nadu State Transport Corporation has been divided into seven divisions with effect from 6th January 2004. Each divisional office has been divided into some Regional offices.

### **TAMIL NADU STATE TRANSPORT CORPORATION (TNSTC)**

Tamil Nadu State Transport Corporation (TNSTC) is a government owned bus transport unit. Cheran Transport Corporation Limited was incorporated as a Company in 1972 and it commenced its services from 1972 with 110 buses. Tamil Nadu State Transport Corporation (Coimbatore Division III) Ltd., has been merged with Tamil Nadu State Transport Corporation (Coimbatore Division I) Ltd., with effect from 2000. The Tamil Nadu State Transport Corporation has been divided into seven divisions with effect from 6th January 2004. Each divisional office has been divided into some Regional offices.

#### **Formation of TNSTC (Madurai) Ltd.**

TNSTC (Madurai) Ltd has been created with effect from 6th January 2004 by integrating the existing five regions which were operated in southern districts and they are renamed as follows:

1. Madurai I
2. Tirunelveli II
3. Nagarcoil III
4. Dindigul IV
5. Virudhunagar V

### **STATEMENT OF PROBLEM**

In the modern period, public bus transport services, being the most indispensable, help the people for mobility. Every human being or a passenger wants to avail better and comfortable travel. In order to know the prevailing service related problems with regard to TNSTC services this study have undertaken as

“The Significance of Service Quality in TNSTC with special reference to Tirnelveli and Nagercoil, Madurai Division. and bring the valuable suggestions to make this services as equal to developed countries.

### OBJECTIVES OF THE STUDY

The main aim of this study is to light on the Significance of Service Quality towards TNSTC transport service particularly from the study area and to know the ways and techniques followed by bus transport service industry to provide modest service to the public. The objectives of this research are given below:

- To identify the role of Service quality prevails in the TNSTC of the study area.
- To highlight the needs and existing service system of TNSTC services.
- To study the code of standards and the significance of Service Quality.

### METHODOLOGY AND DATA COLLECTION

This paper aims to establish quality standards which are needed to ensure the quality of public transport provision and create a fully customer oriented public transport network in developing countries. In order to gain its objective, the basic approach of this study involved a comprehensive analysis of public transport users' behavior which is conducted through customer survey.

#### Quality criteria categories

Categories	Customer's point-of-view*	Operator's point-of-view
Availability	Having station/stop near origin/destination Span of service	<ul style="list-style-type: none"> <li>• Network coverage</li> <li>• Stop spacing</li> </ul>
Accessibility	<ul style="list-style-type: none"> <li>• Ease of getting on/off train/bus</li> <li>• Physical condition of stations</li> </ul>	<ul style="list-style-type: none"> <li>• Walking distance</li> <li>• Vehicle accessibility</li> </ul>
Information	<ul style="list-style-type: none"> <li>• Clear and timely announcements of stops</li> <li>• Displaying of customer service</li> </ul>	<ul style="list-style-type: none"> <li>• Information availability</li> <li>• Real-time data</li> </ul>
Time	Frequency of delays for emergencies <ul style="list-style-type: none"> <li>• Reliable train/buses that come on schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Punctuality</li> <li>• Travel time/speed</li> </ul>
Customer care	<ul style="list-style-type: none"> <li>• Explanations and announcement of delays</li> <li>• Friendly, courteous, quick service from staffs</li> </ul>	<ul style="list-style-type: none"> <li>• Driver behavior</li> <li>• Customer complaint</li> </ul>
Comfort	Comfort of seats on train/bus <ul style="list-style-type: none"> <li>• Temperature on train/bus</li> </ul>	<ul style="list-style-type: none"> <li>• Comfort on board</li> <li>• Cleanliness</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Safe and competent drivers</li> <li>• Safety from crime on board and at station</li> </ul>	<ul style="list-style-type: none"> <li>• Safety on board/station</li> <li>• Security on board/station</li> </ul>

(\* A list of quality criteria above is only used for illustration, it does not reflect total quality criteria that mentioned in EN 13816:2002)

Source: Adopted from EN 13816:2002

Regarding quality measurement, Level of Service (LOS) is considered as a qualitative measure used to relate the quality of public transport service. LOS is originally developed in 1965 and commonly used to analyze highways by categorizing traffic flow and assigning quality levels of traffic based on performance measure. Belonging to this concept, the potential values for a performance measure are divided into six

ranges denoted by the capital letters from A (the best level) to F (the worst level). In Germany and America, six ranges of values for a particular service measure are also used for measuring passenger's perception of public transport service. Because LOS letter grades are already familiar, the LOS concept was invited in this study to describe passengers' perceptions of the quality of public transport service in developing countries.

### Significant factors and Discussion for Ensuring the Service Quality:

#### 1. Security

Several surveys were conducted in the past showing that passengers did not feel a security due to increase of pickpocket and lack of additional supports on board as well as station

1. Good lighting at stops or in station buildings
2. Presence of other passengers
3. Having well-marked emergency phones or help points available
4. Absence of vandalism
5. Low risk of accidents and injuries
6. Official response to perceived risks
7. Low number of reported security incidents

#### 2. Safety

Passenger safety reflects the probability of being injured in relation to passenger movement while using public transport

#### 2. Span of service

This criterion measures the length of service that is provided during a day. It impacts the convenience of public transport for passengers and can constrain the types of trips that can be made by public transport.

#### 3. Stop comfort

Comfort at bus stops is important for potential public transport users (motorcycle users), both the physical comfort and comfort regarding ambient conditions at stops

#### 4. Waiting Time:

Waiting time is the time measured from the arrival of passenger at the bus stop to the departure of means of transport.

5. **Passenger Environment:** Indicator passenger environment is measured in passenger environment survey in terms of customer information and equipment

6. **Punctuality:** is the most concern from passenger' point-of-view, a public transport vehicle is considered "on time" if it departs a location within a certain number of minutes after and/or before the scheduled time.

7. **Bus comfort** Comfort is a significant factor in assessing service quality

8. **Passenger environment** Similar to passenger environment at stops, factors evaluated for passenger environment on-board include

1. Information of trip itinerary
2. Information of span of service
3. Information of frequency
4. Information of fare
5. Information of stop name
6. Information of transfer name

7. Information of vehicle capacity Equipment
8. Air-condition system
9. Wheelchair lift
10. Press button
11. Announcement
12. Vending machine

### 9. Factors evaluated for cleanliness include

1. Organic smells (vomit, urine, sweat)
2. Smell of tobacco
3. Smell of gasoil
4. Stuffy or musty smell
5. Dirty body, advertising panel, lateral line panels
6. Traces of diesel leak near stopper
7. Outside of windows dirty
8. Traces of diesel fumes or soot
9. Presence of garbage on the floor
10. Presence of vomit
11. Greasy, slippery or sticky floor
12. Driver's protection window dirty, greasy or frosted
13. Inside of windows dirty, greasy but not scratched
14. Dirty handrail or handles
15. Dirty or dusty driver's cab
16. Dirty seats or rotunda
17. Damaged parts of body or lighting out of order
18. Torn doors or vestibule joints
19. Outside door opening command out of order
20. Internal visual aspect
21. Undulating floor, deteriorated step
22. Handrail, guardrail or handles broken, lacking or unusable
23. Damaged or ruined vestibule
24. Passengers seats torn to shreds

### CONCLUSION:

There is a need for more concentration on service efficiency, safety and security, maintenance, impact of hike in bus fare, effective time management system, level of comfort, attractive features, accessibility, convenience and response of service personnel's from both the sides of bus transport service sector authorities to enhance the services and service quality to attract the new passengers and to retain the existing passengers.

It is suggested that the equal priority should be given to various categories of passengers like children, student, officials, business people, professionals and others at different age groups. Both sectors of bus transport service industries should concentrate more on giving quality services in maintenance, bus fare, comfort, ticket purchase behavior of passengers, performance of service personnel's and effective time management to enhance the passengers' satisfaction at various levels.

### REFERENCE

- ❖ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany.
- ❖ Eboli, L, Mazzulla, G., 2011. Performance Indicators for an Objective Measure of Public Transport Service Quality. European Transport,
- ❖ Transporti Europei (2011) Issue 51, paper No 3, ISSN 1825-3997.
- ❖ EN 13816:2002. Transportation - Logistics and Services - Public Passenger Transport - Service Quality Definition, Targeting and Measurement. European Committee for Standardization.
- ❖ FGSV, 2001a. HBS – Handbuch für die Bemessung von Straßenverkehrsanlagen. FGSV-Nr. 299. Köln.
- ❖ Krithika, S., 2012. Development of Level of Service (LOS) Framework for Rural Feeder Service. Master thesis. Indian Institute of Technology Kharagpur.
- ❖ Morichi, S., Archarya, S.R., 2013. Transport Development in Asian Megacities – A New Perspective (Eds). Springer, 2013, p. 107-142.
- ❖ Parikesit, D., Susantono, B., 2013. Strengthening the Role of Public Transport. Morichi, S., Archarya, S.R., (Eds) Transport Development in Asian Megacities – A New Perspective. Springer, 2013, p. 107-142.

### BOOK & WEBSITES:

1. Advances in Services Marketing and Management, Vol.4, JAI Press, Green.

- 
2. Eugene, F. D. C., & Regi, S. B. Advantages and Challenges of E-Commerce Customers and Businesses: In Indian Perspective. *International Journal of Research—Granthaalayah*, 4(3), 7-13.
  3. Golden, S. A. R. (2017). *Recent Research in Social Sciences & Humanities*. EduPedia Publications (P) Ltd.
  4. Modern Marketing, Principles and Practices; R.S.N.Pillai, Bagavathi, S.Chand Publication.
  5. Regi, S. B., & Golden, S. A. R. (2014). A Descriptive Study On The Role Of Consumer Psychology And Behaviour In Product Purchasing. *Indian Streams Research Journal*, 3(12), 1-6.
  6. [www.tnstc.in](http://www.tnstc.in)