## PASSENGERS' PERCEPTION TOWARDS PUBLIC ROAD TRANSPORT SECTOR IN TIRUNELVELI DISTRICT- AN ECONOMIC EVALUATION

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**ABSTRACT**

About 80% of the land passenger transport needs in India is met by the bus transport system. Primary and secondary data are used in the present study. A total of 140 sample passengers were selected conveniently using stratified random technique. Secondary data were collected from a wide spectrum of sources such as books, magazines, and government reports, records of TNSTC and websites of various transport organizations. In order to process the data, the tabular presentations and statistical techniques like mean, standard deviation, chi-square test and t test were extensively used.

The field survey was conducted by personal interview method during the period on October 2015 to January 2016. It is found that 34% of the respondents travel for official/business purposes, 10% of the respondents travel for tour/pilgrimage, 4% of the respondents travel for personal and medical purposes, 38% of the respondents for educational purposes and 14% of the respondents travel for vocational purposes. It is concluded that students and employees, being the regular commuters, the majority (38%) of the respondents selected for the study travel in bus for educational purposes. In order to find out the significant difference in satisfaction of travel among the sample respondents based on marital status, the 't' value was calculated and the calculated 't' value was found to be 0.7641 which is lower than the table value 1.97 which is significant at 0.05 level. Therefore, the null hypothesis is accepted and concluded that there is no significant difference in satisfaction of travel among the respondents between marital statuses. To conclude, it is clear from the study that the TNSTC Tirunelveli Division has been rendering good services to the rural commonalities in their operating area notwithstanding convinced restrictions. Still the commuters expect some more efficient and satisfactory bus services. So, the TNSTC Tirunelveli Division has still a long way to fulfil their prospects.
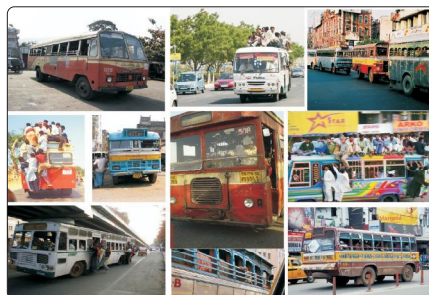
**KEY WORDS:** *passenger, Road Transport Undertakings, customer satisfaction, services quality, satisfaction*

### INTRODUCTION:

Transportation is the movement of people and goods with vehicles, which is, fast, convenient, easy, economical, and environmentally friendly. The vehicle segment is an imperative part of the economy affecting on advancement and the welfare of populaces. At the point when transport frameworks are productive, they give monetary and social open doors and advantages that outcome in positive multipliers impacts, for example, better availability to business sectors, livelihood and extra ventures(Jean-Paul Rodrigue). The public sector passenger road transport system in India is operated by 71 passenger Road Transport Undertakings owning 1,13,370 buses with individual fleet strength ranging from 5 to 17000 buses among these organisations under single management (Kulkarni, 1998). About 80% of the land passenger transport needs in India is met by the bus transport system (Kulkarni, 2000).

Transport has recorded an extensive growth over the years both in spread of network and in output of the system. Glimpses of several modes of transport such as rail, road, water ways, air and metro are included (Kanafani A. K. 1983). To measure and evaluate the quality of service for improvement, the only way is to find out the level of satisfaction the passengers derive from the services (Parasuraman, 1985). Government plays an important role in the process of planning and implementation of public transport policy in various aspects (Penalosa 2005). Quality in simple expression means the extent to which a product or a service meets the requirements and expectations of the customers (Taly et al. 1998). By and large, the travelers have different issues in going in open division transport administration and this study is engaged to quantify the different issues and to offer higher mindfulness, and in addition perceiving the level of passengers recognition towards administration quality in Tamilnadu state transport enterprise in Tirunelveli district.

### Performance of SRTU

During the 10th plan central budgetary support to the sector was `210 crore, showing a large increase over 9th plan outlay of `60 crore. State budgetary support to the sector increased from `7355 crore during the 9th plan to `9207 crore, during the 10th plan, showing an increase of `1852 crore over the ninth plan outlay. State plan outlay forms about 99% of the total plan outlay for the sector. Utilisation of funds under central plan increased from 71% in the IX plan to 85% in the X plan. Utilisation of funds under state plan decreased from 81% in the IX plan to 60% in the X plan. The total capital invested for SRTU's increased from `8200 crore to `13821 crore, at a CAGR of 7.7% during 2001- 2008. Total cost of operation of SRTU's is higher than total revenue during 2001-2008.
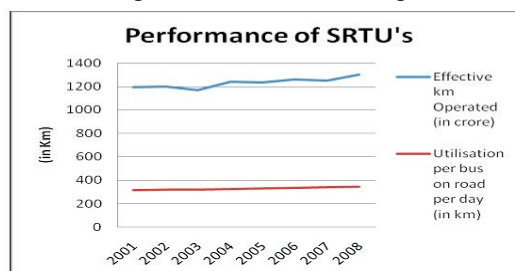
Both passenger and freight tonne kilometre performed by road transport show significant growth during 2001-2007. Passenger km performed increased from 2075.5 billion to 4251.7 billion during 2001-2006, showing a CAGR of 15%. Freight tonne km performed increased from 494 billion to 766 billion during 2001-2007, showing a CAGR of 7.6%. Utilisation per SRTU bus on road per day increased from 313 km in 2001 to 344 km in 2008.

## OBJECTIVES OF THE STUDY

The study has the following specific objectives:

1. To know the socio economic characteristics of the commuters in Tirunelveli district
2. To analyse the factor influencing passengers' perception of the quality of service provided by the Tamilnadu state transport corporation in Tirunelveli district.
3. To examine the problems of the bus passengers that they encounter while traveling in the buses in Tirunelveli district
4. To study the level of satisfaction of passengers on services provided by the public road transport system

## METHODOLOGY

The present study is an empirical research based on survey method. The present study is confined to Tirunelveli district. Convenient sampling technique is used to draw sample passengers. The sample passengers are mobile population. Hence, sample size is chosen as 140 and it is considered to be adequate and representative. Primary and secondary data are used in the present study. The required primary data are collected using pre-tested and well-structured interview schedule. A well conscripted in English, pre-tested for the cogency was administered for the purpose of data collection. The respondents provided their valued views out of their recollection and memory may be subjected to memory loss. From the lists of bus routes from the 10 selected branches of the TNSTC Tirunelveli Division 14 routes were selected at random. 10 passengers were selected at random in each route giving due weightage to different age groups. Thus, a total of 140 sample passengers were selected conveniently using stratified random technique. Secondary data were collected from a wide spectrum of sources such as books, magazines, and government reports, records of TNSTC and websites of various transport organizations. In order to process the data, the tabular presentations and statistical techniques like mean, standard deviation, chi-square test and t test were extensively used. The field survey was conducted by personal interview method during the period on October 2015 to January 2016.

## REVIEW OF LITERATURE

Gatersleben and Uzzell (2007) suggest that public transport is stressful due to unpredictability and longer travel times. This study also acknowledges some sources of pleasure for public transport users. Attributes relating to pleasurable feelings were as the possibility to read during the trip, to listen to music, to interact with other people, and to look at the passing scenery. Andreessen (1995) reported that public services are offered to the public based on the principle of quality. He concluded that the transport industry, overall, as a low customer satisfaction. Jen, To Lu (2011) in their paper sought to improve understanding of passengers' behavioural intention through a causal relationship model that considers service quality and satisfaction as study parameters. Yuan-Chih Huang, Chih Wu and Jovan Chia-Jung HSU (2006) in their research paper they have discussed the relationship among customers characteristics, the customers travelling characteristics and service quality. Disney, J. (1999), received

generic issues concerning customer satisfaction and loyalty in UK and illustrated trends in customer behaviour. He also concluded that, customer expectations are rising while transport operators becoming more innovative in their attempts to attract and retain customers.

**ANALYSIS OF THE STUDY**

In order to achieve the objectives of the study an analysis is made to understand the level of satisfaction of the respondents on services offered by the public road transport sector. Academicians, advocates, business persons, travellers, working force, students, and housewives were covered and valuable data has been collected.

**Socio-personal characteristics of respondents (n=140)**

| Variable | Categories | Percentage |
|---|---|---|
| Area of Residence | Urban | 27 |
| | Rural | 73 |
| Gender | Male | 51 |
| | Female | 49 |
| Age | Young (25-35) | 24 |
| | Middle (35-45) | 48 |
| | Old (45-60) | 28 |
| Marital Status | Married | 74 |
| | Unmarried | 26 |
| Education | Secondary | 20 |
| | Hr. Sec | 26 |
| | Graduate | 18 |
| | Diploma | 36 |
| Housing | Own | 15 |
| | Rent | 85 |
| Family Size (members) | Less than 3 | 25 |
| | 3-5 | 60 |
| | 5-7 | 15 |
| Family Type | Nuclear Family | 90 |
| | Joint Family | 10 |
| Religion | Christians | 22 |
| | Hindus | 78 |
| Community | Most Backward | 16 |
| | SC/ST | 12 |
| | Backward Classes | 72 |
| Distance Travelled | less than 5 Kilo meters | 38 |
| | 5-10 Kilo meters | 30 |
| | 10-15 Kilo meters | 20 |
| | Above 15 Kilo meters | 12 |

| | | |
|---|---|---|
| Purpose of travel | Education | 38 |
| | Vacation | 14 |
| | Official/business | 34 |
| | Personal | 4 |
| | Tour/pilgrimage | 10 |
| Monthly Income (Rs.) | Below 10000 | 4 |
| | 10000-20000 | 20 |
| | 20000-30000 | 10 |
| | Above 30000 | 66 |
| Satisfaction of travel | Very satisfied | 23 |
| | Satisfied | 58 |
| | To some extent | 12 |
| | Not at all | 7 |
| Problems of travel | Most rash and negligent driving | 8 |
| | Inadequate services | 43 |
| | Poor conditions of buses | 27 |
| | Unreasonable waiting time at bus stops | 19 |
| | Worse seating arrangement | 3 |
| | Total | 100 |

Source: Primary Data

**RESULTS AND DISCUSSION**

The socio-economic characteristics of respondents were analysed and presented in the above table. The study aims to studying commuters' satisfaction. It is evident from the results that 73% of the respondents reside at rural area and 27% of the respondents reside at urban area. Out of the total respondents, 51% belong to male category and the rest of the respondents i.e. 49% belong to female category.

Further, results revealed that the percentage of middle age respondents is more i.e., 48%. As per the survey middle age respondent's involvement is higher than that of old and young aged groups and mean size of the family worked out to be 32.63 years and standard deviation was 27.13 in the study area. Regarding the marital status 74 per cent are married. Besides, results revealed that 20% of the respondents had high school education, about 26% had higher secondary level education and only about 18% had pursued degrees. Further, 36% of the respondent's educational qualification is diploma. From the table, it is revealed that almost all the sample respondents are residing rental houses (85%). Results on family size categories indicate that majority of the respondents i.e., 60 percentage of families are having 3-5 size ranging from members and mean size of the family worked out to be 4.01 years and standard deviation was 7.214. Results on family type revealed that 90 percent of the respondents belonging to the nuclear family. This clearly indicates the declining of the joint family system.

The study showed that majority of them, about 78%, was Hindus and about 22% were Christians. Generally, the study area is dominated by Hindus. Majority of the respondents belong to backward classes and their percentage is 72%. It has been inferred that 38 per cent of the total passengers travel a distance of less than 5 Kilo meters. Moreover, 30, 20 and 12 per cent of the passengers travel a distance of 5-10 Kilo meters, 10-15 Kilo meters and above 1538 per cent of the total

passengers travel only a distance of less than 5 Kilo meters respectively. The average distance travelled per passenger is 8.73 km only.

It is found from table that 34% of the respondents travel for official/business purposes, 10% of the respondents travel for tour/pilgrimage, 4% of the respondents travel for personal and medical purposes, 38% of the respondents for educational purposes and 14% of the respondents travel for vocational purposes. It is concluded that students and employees, being the regular commuters, the majority (38%) of the respondents selected for the study travel in bus for educational purposes.

The study disclosed that 4% of the respondents are earning an income up to Rs.10000, 20% of the respondents are earning Rs.10000-20000 monthly, 10% of the respondents are earning Rs.20000-30000 monthly, and the others 66% of the respondents are earning above Rs.30000 respectively. The average monthly income of the respondent's family is Rs.28400.

It is clear that 81% of sample respondents are satisfied with their travel, 12% of respondents are not fully satisfied they need some extent in their travel, and 7% of respondents are fully not satisfied with their travel. The problems with respect to the public transport sector include the problems of inadequate services, poor conditions of buses, unreasonable waiting time at bus stops, most rash and negligent driving and worse seating arrangement and their percentage are 43, 27, 19, 8 and 3 respectively.

**Perceptions of services quality**
**Null hypothesis:** There is no significant difference between services quality and their level of satisfaction.

**Relationship between passengers' perceptions of services quality and level of satisfaction (Percentage)**

| Services quality | Highly Satisfied | Satisfied | Neutral | Dissatisfied | Highly Dissatisfied |
|---|---|---|---|---|---|
| Comfort of boarding and landing | 16.43 | 42.14 | 10.00 | 18.57 | 12.86 |
| Less over loading | 8.57 | 22.86 | 32.86 | 13.57 | 22.14 |
| Ease of movement | 20.00 | 45.71 | 9.29 | 15.71 | 9.29 |
| Low probability to breakdowns / accidents | 51.43 | 16.43 | 15.00 | 11.43 | 5.71 |
| In time departure / arrival | 13.57 | 22.14 | 19.29 | 12.86 | 32.14 |

Source: Computed from Primary Data

It is learned from the above table that comfort of boarding and landing, 42.14% are satisfied, 16.43% are highly satisfied, 10% of the respondents are in neutral, 12.86% are highly dissatisfied and 18.57% are dissatisfied. It reveals that less overloading 22.86% are satisfied, 32.86% of the respondents are in neutral, 8.57% are highly satisfied, 22.14% are highly dissatisfied and 13.57% are dissatisfied. It noted that ease of movement, 45.71% are satisfied, 9.29% are in neutral, 20% are highly satisfied, 15.71% are dissatisfied and 9.29% are highly dissatisfied. It is learned that Low probability to breakdowns / accidents, 16.43 per cent are satisfied, 15 per cent of the respondents are in neutral, 51.43 per cent are highly satisfied, 11.43 per cent are dissatisfied and 5.71 per cent are highly dissatisfied. It noted from the above table that in time departure / arrival, 22.14 per cent are satisfied, 19.29 per cent of the respondents are in neutral, 13.57 per cent are highly satisfied, 12.86 per cent are dissatisfied and 32.14 per cent are highly dissatisfied.

In order to find out whether there is any correlation in the awareness of services quality of the respondents, chi-square test has been applied. The results of the Chi-square test are furnished below.

| | |
|---|---|
| Calculated value of Chi-square | = 178 |
| Table value at 5 per cent level | = 26.296 |
| Degrees of freedom | = 16 |

As the calculated value of Chi-square is greater than the table value at 5 per cent level of significance, there is a relationship in the awareness of services quality of the respondents in the study area.

**Significant differences in satisfaction of travel among the sample respondents based on Marital Status**

| Marital Status | N | Mean | S.D | 't'Value | Interpretation |
|---|---|---|---|---|---|
| Married | 104 | 31.86 | 17.15 | 0.7641 | Not Significant |
| Unmarried | 36 | 19.22 | 6.93 | | |

Source: Computed from Primary Data

In order to find out the significant difference in satisfaction of travel among the sample respondents based on marital status, the 't' value was calculated and the calculated 't' value was found to be 0.7641 which is lower than the table value 1.97 which is significant at 0.05 level. Therefore, the null hypothesis is accepted and concluded that there is no significant difference in satisfaction of travel among the respondents between marital statuses.

**CONCLUSION**

To conclude, it is clear from the study that the TNSTC Tirunelveli Division has been rendering good services to the rural commonalities in their operating area notwithstanding convinced restrictions. But the passengers in the study area were dissatisfied though not totally but to certain degree with the operating and service efficiency of TNSTC Tirunelveli Division. There exists a big gap between the expectations and perceptions of the passengers. Still the commuters expect some more efficient and satisfactory bus services. So, the TNSTC Tirunelveli Division has still a long way to fulfil their prospects.

The obedience to traffic rules, smooth speed and appropriate conservation of vehicles would help capture the threat of breakdowns and accidents thus pushing up the safety of the travel. The operators in Tamilnadu State Transport Corporation sector will have to stringently follow to the time schedules and avoid excessive en route stops to improve upon the consistency of the service. Moreover rendering service to the people by encompassing bus services to economically unfeasible routes, it should also effort to earn profit and to achieve the outlooks of its commuters and to importance more on passenger - friendly services.

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