# PASSENGER SATISFACTION ON AMENITIES PROVIDED BY SOUTHERN AND TIRUPUR AND COIMBATORE RAILWAY DIVISION- A COMPARITIVE STUDY

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## ABSTRACT

Indian railway is one of the largest network across the world were the southern railways play a major role in the growth of Indian railways. The main objectives of the study is to compare the satisfaction of passengers towards service provided by Coimbatore and Tirupur division. A total of 75 samples were taken for the study were Percentage analysis, Descriptive statistics, t-test, Kruskal Wallis test, Oneway Anova and SEM analysis. The conclusion is that with the quality of service is higher with Tirupur division when compared to Coimbatore and the punctuality of the officers was high with Coimbatore when compared to Tirupur and the respondents who are male have higher satisfaction towards service provided by Coimbatore division. The respondents who are female have higher satisfaction towards the responsibility of railway officers with Tirupur division.

**Keywords:** Southern Railways, Coimbatore division and Tirupur Division.

## INTRODUCTION TO THE STUDY

Public transportation systems provide the most efficient means for moving a large number of people, especially in densely populated rural and urban centres in a vast country like India. For this reason, providing services characterized by high levels of quality is very important to customize the users of the services and attract new users—critical literature review on the passengers' experiences and their satisfaction towards railway services offered in Indian railways. Service quality may be defined as passenger perception of how well a service meets or exceeds their expectations. Satisfaction from service quality is usually evaluated in terms of technical quality and functional quality. This paper is an attempt to put forth the role of service quality in affecting passenger satisfaction in the train, with special reference to South Indian Railways. The study is to compare the satisfaction of passengers in Tirupur and Coimbatore divisions. And for that purpose, a survey is conducted with passengers who are travelling in various trains of Tirupur and Coimbatore division.

## STATEMENT OF THE PROBLEM

Indian Railways is the major mode of transport in the country for passengers as well as freight due to its large network, number of trains and affordability. On the industry front, it is the only player. Hence, a monopoly has been created (which is legal). On the market front, the majorities of its passengers are illiterate, semi-educated and low or middle income with no/low consciousness for quality aspects of service. Railways provide them with a convenient, accessible, and affordable mode of transportation. The monopoly structure has created a typical situation where the service provider (Indian Railways) has no competition and can afford to ignore aspects such as quality of service, passenger satisfaction, and product promotion. The railway is the lifeline of the Indian economy and society, but it is far from healthy and satisfactory service offering. The focus of this study is to analyze the satisfaction of services provided by Tirupur and Coimbatore divisions. In this background, the following questions arise in the minds of the researcher.

Whether the passengers are satisfied with the services provided by the Indian Railways in Coimbatore and Tirupur divisions?

## OBJECTIVES OF THE STUDY
- To study the demographic profile of the passengers in Coimbatore and Tirupur division.
- To compare the level of satisfaction towards service provided by Coimbatore and Tirupur railways.
- To evaluate the level of satisfaction towards service provided by Coimbatore and Tirupur railways
- To compare the level of satisfaction of the passengers in Tirupur and Coimbatore division with facilities provided by Indian railways.

## SCOPE OF THE STUDY
This study is about analyzing and comparing the satisfaction of passengers (passengers) on the service given by Tirupur and Coimbatore divisions concerning Tirupur and Coimbatore. For this purpose, the factors assurance, tangibles, timeliness, responsiveness, information system, empathy, food and safety, reliability, and security were employed to measure the passenger's perceptions about the service quality of railways. The passengers are limited to Tirupur and Coimbatore divisions, and they are selected on a random basis.

The study aims to identify the factors for Passenger Satisfaction regarding facilities provided by Tirupur and Coimbatore divisions. Passenger Satisfaction has been commonly accepted as an indicator of Service Quality. The need for the study is to identify important factors determining service quality of Tirupur and Coimbatore divisions that lead to Passenger Satisfaction. The Scope of the Study is to help the Tirupur and Coimbatore divisions to compare the perception of Passengers towards the quality of services provided by them.

## RESEARCH METHODOLOGY
**Type of research :**
Descriptive research has been adopted towards the study.
**Type of data collected:**
**Primary data:** The primary data required for the study has been collected through an Interview Schedule which has been designed and distributed by the researcher to collect the necessary data.
**Secondary data:** The secondary data was collected through various articles, Journals, Websites etc. The study covered the satisfaction on service provided by Tirupur and Coimbatore divisions to their passengers.
**Sample size and sampling technique:**
As the study is based on passenger satisfaction towards Tirupur and Coimbatore divisions, the samples don't have criteria for choosing the samples Convenience sampling is used for the research. A total of 150 samples were collected and out of 150 samples 75 was collected from Tirupur division and 75 samples were collected from Salem division.
**Tools used for the study**
Percentage analysis, Descriptive statistics, t-test, Kruskal Wallis test, Oneway Anova and SEM analysis.

## LIMITATIONS OF THE STUDY
- The sample size of the study is limited to 150.

- Primary data collected from the respondents may be biased.
- The study area is restricted to Tirupur and Coimbatore.

## ANALYSIS AND INTERPRETATION
## DEMOGRAPHIC VARIABLES

| Demographic variables | Particulars | Coimbatore | | Tirupur | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Frequency | Percent |
| Gender | Male | 60 | 80 | 175 | 70 |
| | Female | 15 | 20 | 75 | 30 |
| | Total | 75 | 100 | 250 | 100 |
| Age | Below 18 | 1 | 1.3 | 7 | 2.8 |
| | 18-25 | 25 | 33.3 | 90 | 36 |
| | 26-35 | 18 | 24 | 76 | 30.4 |
| | Above 35 | 31 | 41.3 | 77 | 30.8 |
| | Total | 75 | 100 | 250 | 100 |
| Educational qualification | 10th | 2 | 2.7 | 7 | 2.8 |
| | Higher secondary | 1 | 1.3 | 7 | 2.8 |
| | UG | 38 | 50.7 | 141 | 56.4 |
| | PG | 34 | 45.3 | 95 | 38 |
| | Total | 75 | 100 | 250 | 100 |
| Place of living | Semi-rural | 5 | 6.7 | 20 | 8 |
| | Rural | 18 | 24 | 84 | 33.6 |
| | Urban | 49 | 65.3 | 126 | 50.4 |
| | Semi urban | 3 | 4 | 20 | 8 |
| | Total | 75 | 100 | 250 | 100 |
| Occupational income | Below 5000/month | 2 | 2.7 | 10 | 4 |
| | 5000-10000/month | 16 | 21.3 | 61 | 24.4 |
| | 10000-20000/ month | 20 | 26.7 | 87 | 34.8 |
| | Above 20000/month | 37 | 49.3 | 92 | 36.8 |
| | Total | 75 | 100 | 250 | 100 |

The above table depicts that the 80% of the passengers taken for the study are male and 20% are female with Coimbatore railway division and 70% of the passengers are male and 30% of the passengers are female with Tirupur division. Only 1.3% of the passengers are less than 18 years of age, 33.3% are between 18-25 years of age, 24% are between 26-35 years and maximum 41.3% are more than 45 years of age with Coimbatore division. Meanwhile, 2.8% are less than 18 years of age, 36% are between 18-25 years of age, 30.4% are between 26-35 years of age and 30.8% are more than 35 years of age with Tirupur division. Maximum of the respondents taken for the study have completed them Under Graduation with both Coimbatore (50.7%) and Tirupur (56.4%). Majority of the respondents taken for the study are from an urban area with both Coimbatore (65.3%) and Tirupur (50.4%) division. Maximum of the respondents taken for the study are earning income more than Rs20000/month with both Coimbatore (49.3%) and Tirupur (36.8%) division.

**Comparison between the level of satisfaction towards service provided by Coimbatore and Tirupur railways**

Ho1: There is a difference with a satisfaction level of passengers from Coimbatore and Tirupur Railway division

| | | Coimbatore | Tirupur | |
|---|---|---|---|---|

| Particulars | N | Mean | SD | Mean | SD | t | Df | Sig |
|---|---|---|---|---|---|---|---|---|
| V1 | 75 | **2.53** | .723 | 2.46 | .777 | .510 | 74 | .011 |
| V2 | 75 | **2.77** | .815 | 2.68 | .847 | .559 | 74 | .000 |
| V3 | 75 | 2.71 | 1.217 | 2.72 | 1.105 | -.392 | 74 | .696 |
| V4 | 75 | 2.49 | 1.167 | 2.50 | 1.127 | .065 | 74 | .948 |
| V5 | 75 | 3.05 | 1.423 | 3.37 | 1.429 | -1.388 | 74 | .169 |
| V6 | 75 | 2.97 | .972 | 3.06 | 1.121 | -.435 | 74 | .665 |
| V7 | 75 | 2.35 | .908 | 2.67 | 1.071 | -1.975 | 74 | .052 |
| V8 | 75 | 2.77 | 1.203 | 2.99 | 1.212 | -.676 | 74 | .501 |
| V9 | 75 | **2.92** | 1.302 | 2.88 | 1.112 | .306 | 74 | .003 |
| V10 | 75 | 2.91 | 1.129 | 2.92 | 1.175 | -.170 | 74 | .865 |
| V11 | 75 | 2.72 | 1.122 | **2.92** | 1.087 | 1.045 | 74 | .030 |
| V12 | 75 | 2.47 | .811 | 2.61 | .815 | .065 | 74 | .948 |
| V13 | 75 | **3.12** | 1.127 | 2.97 | 1.066 | 1.326 | 74 | .042 |
| V14 | 75 | **3.04** | 1.032 | 2.91 | .986 | .954 | 74 | .043 |

It reveals that the there is no relationship between the satisfaction level of passengers from Coimbatore and Tirupur Railway division with the behaviour of clerks at the booking centre (0.696), clarity of various announcements given by at the stations (0.948), keeping the toilets clean with the stations (0.169), satisfaction on service provided by unauthorized vendors (0.665), maintaining the railways platforms clean (0.052), type of ambience at restrooms and waiting rooms of the stations (0.865) and cost of food with stations (0.948).

A relationship exists between Coimbatore and Tirupur division with the satisfaction of passengers related to illumination & signage's of passengers (0.011), frequent availability of porters at the stations (0.000), punctuality of the stations (0.003), water facility, seating and trolley facilities provided by the stations (0.030), cleanliness of bedroll with the stations (.042) and fan and light facilities inside the trains (.043).

The level of satisfaction was higher with Coimbatore division when compared to Tirupur division towards illumination & signage's of passengers (2.53), frequent availability of porters at the stations (2.77), punctuality (2.92), cleanliness of bedroll with the stations (3.12) and fan and light facilities inside the trains (3.04). The satisfaction level of higher with Tirupur when compared to Coimbatore towards water facility, seating and trolley facilities provided by the station (2.92).

**The satisfaction of passengers towards the responsibility of railway officers with Coimbatore and Tirupur division**

Ho2: Satisfaction of passengers towards the commitment of railway officers ho relation with the satisfaction of passengers on officers with Tirupur division

| | | Coimbatore | | Tirupur | | | | |
|---|---|---|---|---|---|---|---|---|
| Particulars | N | Mean | SD | Mean | SD | t | Df | Sig |
| ROR1 | 75 | 2.68 | 1.264 | 2.67 | 1.147 | -.129 | 74 | .898 |
| ROR2 | 75 | 3.00 | .838 | 3.02 | .967 | -.085 | 74 | .933 |
| ROR3 | 75 | 2.69 | .822 | 2.70 | .928 | -.346 | 74 | .730 |
| ROR4 | 75 | 3.32 | 1.264 | 3.54 | 1.236 | -1.014 | 74 | .314 |
| ROR5 | 75 | 3.45 | 1.044 | 3.52 | 1.027 | -.071 | 74 | .943 |
| ROR6 | 75 | 3.20 | 1.078 | 3.32 | 1.155 | -.847 | 74 | .400 |

| ROR7 | 75 | 2.71 | .835 | **2.72** | .845 | .276 | 74 | .004 |
|------|----|------|------|----------|------|------|----|------|
| ROR8 | 75 | **3.00** | 1.139 | 2.99 | .974 | .207 | 74 | .006 |

It was found that no relation exists between the satisfaction of passengers towards railway officers booking as per their needs (0.898), Quality of announcement made by the officers (0.933), clarity of speech given by the officers at railway stations (0.730), Query on the complaints made by the passengers (0.314), handling of theft cases by the officers (0.943) and handling of tickets and issues (0.400) with Coimbatore and Tirupur division.

Meanwhile, relationship exists between the junctions with the overall quality of service provided (0.004) and punctuality of the officers (0.006) with Coimbatore and Tirupur division. It was found that the quality of service is higher with Tirupur division (2.72) when compared to Coimbatore and the punctuality of the officers was high with Coimbatore (3.0) when compared to Tirupur.

**Comparison between gender and satisfaction of passengers with Coimbatore junction**
Ho3: No relation exists between gender of the passengers and satisfaction of passengers with Coimbatore junction

| Particulars | Gender | N | Mean Rank | Chi-square value | Sig |
|-------------|--------|---|-----------|------------------|-----|
| Level of satisfaction towards service provided by Coimbatore | Male | 60 | 38.86 | 1.470 | .000 |
| | Female | 15 | 34.57 | | |
| | Total | 75 | | | |
| Satisfaction of passengers towards responsibility of railway officers with Coimbatore | Male | 60 | 36.34 | .493 | .185 |
| | Female | 15 | 44.63 | | |
| | Total | 75 | | | |

No relation exists between gender and satisfaction of passenger towards responsibility of railway officers with Coimbatore (0.185).

Relationship exists between gender and satisfaction towards service provided by Coimbatore (.000). It reveals that the respondents who are male (38.86) have higher satisfaction towards service provided by Coimbatore division.

**Comparison between gender and satisfaction of passengers with Tirupur junction**
Ho4: No relation exists between gender of the passengers and satisfaction of passengers with Tirupur junction

| Particulars | Gender | N | Mean Rank | Chi-square value | Sig |
|-------------|--------|---|-----------|------------------|-----|
| Level of satisfaction towards service provided by Tirupur | Male | 51 | 35.29 | 2.467 | .116 |
| | Female | 24 | 43.75 | | |
| | Total | 75 | | | |
| Satisfaction of passengers towards responsibility of railway officers with Tirupur | Male | 51 | 34.35 | 4.497 | .034 |
| | Female | 24 | 45.75 | | |
| | Total | 75 | | | |

No relation exists between gender and satisfaction of passenger towards the responsibility of railway officers with Tirupur (0.116).

Relationship exists between gender and satisfaction towards the responsibility of railway officers with Tirupur (.034). It reveals that the respondents who are female (45.75) have higher satisfaction towards commitment of railway officers with Tirupur division.

**Comparison between age and satisfaction of passengers with Coimbatore and Tirupur junction**

Ho5: Significant difference is there between age and satisfaction of passengers with Coimbatore and Tirupur junction

| Particulars | Age | Coimbatore | | | | | Tirupur | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | Mean | SD | F | Sig | N | Mean | SD | F | Sig |
| Level of satisfaction towards service provided by Coimbatore | Below 18 | 1 | 3.06 | . | | | 2 | 3.06 | .000 | | |
| | 18-25 | 25 | 2.50 | .39112 | | | 27 | 2.46 | .410 | | |
| | 26-35 | 18 | 3.39 | .37324 | 17.61 | .000 | 23 | 3.37 | .329 | 25.35 | .000 |
| | Above 35 | 31 | 2.59 | .49171 | | | 23 | 2.5 | .443 | | |
| | Total | 75 | 2.76 | .55973 | | | 75 | 2.79 | .557 | | |
| Satisfaction of passengers towards responsibility of railway officers with Coimbatore | Below 18 | 1 | 3.88 | . | | | 2 | 3.8800 | .000 | | |
| | 18-25 | 25 | 2.98 | .40774 | | | 27 | 2.9185 | .532 | | |
| | 26-35 | 18 | 3.35 | .53145 | 4.65 | .005 | 23 | 3.3722 | .506 | 5.66 | .002 |
| | Above 35 | 31 | 2.80 | .65714 | | | 23 | 2.8452 | .627 | | |
| | Total | 75 | 3.00 | .59305 | | | 75 | 3.0608 | .602 | | |

Relationship exists between age and satisfaction towards service provided by Coimbatore (.000) and Tirupur (.000) and passengers satisfaction towards responsibility of railway officers with Coimbatore (.000) and Tirupur (.002).

It reveals that the respondents from the age group less 18 years and the respondents from the age group between 26-35 are satisfied towards service provided with Coimbatore and Tirupur division. Meanwhile, the passengers from the age group between 18-25 and more than 35 years of age are dissatisfied towards ice provided with Coimbatore and Tirupur division.

**IMPACT OF ATTRIBUTES RELATED TOWARDS LEVEL OF SATISFACTION TOWARDS SERVICE PROVIDED BY COIMBATORE**

The model revealed that there GFI value (0.835) and AGFI (0.826) are between 0.8 to 0.89 and it is perfectly fit and can proceed for analyzing the relationship between the variables.

Table R estimates for the compared factors

| | | | Estimate | S.E. | C.R. | P |
|---|---|---|---|---|---|---|
| VAR00008 | <--- | VAR00001 | .174 | .066 | 2.622 | .009 |
| VAR00008 | <--- | VAR00002 | -.064 | .085 | -.750 | .453 |
| VAR00008 | <--- | VAR00003 | .183 | .078 | 2.341 | .019 |
| VAR00008 | <--- | VAR00004 | .019 | .040 | .473 | .636 |
| VAR00008 | <--- | VAR00005 | .167 | .075 | 2.238 | .025 |
| VAR00008 | <--- | VAR00006 | -.079 | .075 | -1.059 | .290 |
| VAR00007 | <--- | VAR00001 | .080 | .052 | 1.533 | .125 |
| VAR00007 | <--- | VAR00002 | .001 | .067 | .018 | .986 |
| VAR00007 | <--- | VAR00003 | .362 | .062 | 5.883 | *** |
| VAR00007 | <--- | VAR00004 | .102 | .031 | 3.261 | .001 |
| VAR00007 | <--- | VAR00005 | .149 | .059 | 2.541 | .011 |
| VAR00007 | <--- | VAR00006 | -.194 | .059 | -3.301 | *** |

Minimum was achieved (Chi-square = 214.528, Degrees of freedom = 16, Probability level = .000)

It reveals that basic facilities provided by Coimbatore railway division, safety and security, health service provided by them and punctuality with various aspects in Coimbatore division have a higher impact towards satisfaction on overall service provided. Meanwhile, the factors basic facilities provided, hygiene factors of Coimbatore railways, safety and security, health service provided by them and punctuality with various aspects in Coimbatore division have a higher impact towards satisfaction of the service supplied by railway officers.

**Chart for R estimates for the compared factors In Coimbatore division**
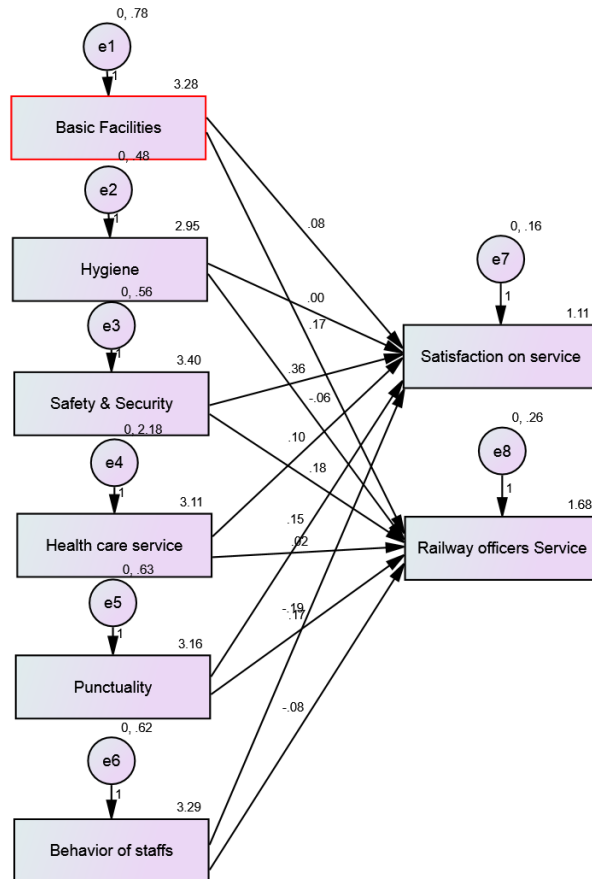


**FINDINGS**

- Most of the respondents are male.
- Maximum of the respondents are more than 35 years of age.
- Most of the respondents are undergraduates.
- Most of the respondents are from the urban area.
- Maximum of the respondents are earning more than Rs.20000/month.

The level of satisfaction was higher with Coimbatore division when compared to Tirupur division towards illumination & signage's of passengers, frequent availability of porters at the stations, punctuality, cleanliness of bedroll with the stations and fan and light facilities inside the trains. The satisfaction level of higher with Tirupur when compared to Coimbatore towards water facility, seating and trolley facilities provided by the station.

The respondents from the age group less 18 years and the respondents from the age group between 26-35 are satisfied towards service provided with Coimbatore and Tirupur division.

Meanwhile, the passengers from the age group between 18-25 and more than 35 years of age are dissatisfied towards ice provided with Coimbatore and Tirupur division.

The factors basic facilities provided, hygiene factors of Coimbatore railways, safety and security, health service provided by them and punctuality with various aspects in Coimbatore division have a higher impact towards satisfaction of service provided by railway officers.

**SUGGESTIONS**

The passengers don't have awareness about safety measures provided by the southern railway department. It shows that the railways will make the people aware about the various safety measures such as Railway Protection Force (RPF), Internet Protocol-based Close Circuit Television (CCTV) surveillance system with video analytics and recording facility, Access control, Personal and baggage screening system, Bomb Detection and Disposal System etc. (Indian railways, Fact sheet 2013).

The passengers in the train feel that they are dissatisfied on the handling of theft cases that happens in the train and the passengers are not aware of making a complaint about the theft. For this purpose the passenger shall complaint about this to GRP escort party(No. 98/TG-V/12/1, dated 11.9.1998) to make an FIR about the incident.

**CONCLUSION**

The conclusion is that with the quality of service is higher with Tirupur division when compared to Coimbatore and the punctuality of the officers was high with Coimbatore when compared to Tirupur and the respondents who are male have higher satisfaction towards service provided by Coimbatore division. The respondents who are female have higher satisfaction towards responsibility of railway officers with Tirupur division.

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