

A STUDY ON QUALITY AND SERVICE FOR PASSENGERS OF SOUTHERN RAILWAY AT COIMBATORE CITY

Dr.RACHEL NANCY PHILIP¹ & D.DHIVYA²

¹ Principal, Tirupur Kumaran College, Tirupur.

² Research Scholar, Department of Commerce, Tirupur Kumaran College, Tirupur.

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ABSTRACT: Indian railway is historical legacy, is a vital force in Indian economy. Railways are important part of central transport. Railways are public transport modes having unique characteristics. It has large capacity, high safety level and free from traffic jam. It is suitable for (upper, middle, lower class) peoples because for moderate comparing to other transport. Indian railways are an Indian state-owned and operated by the government of India through ministry of railways. It is one of the world's largest railway networks comprising 1,15,000 Km (71,000 miles) of track over a route of 65,808 Km (40,891 meters) and 7,112 stations. Tamilnadu is one of the 17 zones of Indian Railways. It is earliest of the 17 zones of Indian Railways created in the independence India. Southern Railway divisions has its head quarters in Chennai and has the following six divisions are Chennai, Madurai, Tiruchurappalli, Salem, Palakkad, Trivandrum. It covers the states of Tamilnadu, Kerala, Pondicherry and small portions of Andhrapradesh and Karnataka. More than 500 million passengers travel on the network every year.

In India passenger's trains is the cheapest and comfortable mode of travelling especially for long distances. This paper aims to investigate the passengers perceptions about the services quality of rail transport system

Key Words:

Introduction:

The passenger's services face long term competitive threats from airlines, luxury buses, personalized transport and improve public transport. Low cost airlines are giving stiff competition to upper class segments of passenger services. Though there are competitions from various modes of transport, the railways have its own unique features and provide more services to the passengers. In order to compete with other mode of transport it is inevitable for railways to accelerate the growth of passenger's organization. This can be done by providing more quality services to them. Indian Railway is a principal mode of transportation for long haul freight movement in bulk, long distance passenger traffic, and mass rapid transit in suburban area. It occupied a unique position in the socio- economic map of the country and is considered as a vehicle and barometer of growth. Indian Railways lost its market share in freight and passenger segment due to lack of customer responsiveness and poor public perception.

Review of Literature

Y.Lglenda (2007) analyzed to develop and empirically test an extension to the three-column format. SERVQUAL instrument to evaluate passenger rail service quality. They concluded that few empirical applications of the three-column instrument and extended it to make more suitable for evaluating rail passenger service quality.

Nudit Kulsreshtha & barna liag (2000) examined the demand for the Indian railways they found that growing demand for passenger transport was directly related to growth in the economy. They suggested that any dis equilibrium in the short run can be corrected with adjustment in passenger transport demand and price variable.

Nudit Kulsreshtha & barna liag (2000) "structure & dynamic of non-sub urban passenger travel demand in Indian railway" transportation journal vol.27 no.2pp-221-241.

Germa Bel (1997) had undertaken changes in travel time across modes and its impact on the demand for inter-urban rail travel. He observed that an explanatory model to evaluate the impact of travel time changes on inter-urban rail demand. The change in rail passenger traffic between two periods on various routes i.e it is a model estimated on the change in cross-selection traffic volumes between the two periods. The empirical analysis confirms the explanatory power of changes in the inter-model structure of travel times and shows the need to introduce the impact of these changes when studying the demand for inter-urban travels.

Dimitrios A.Tsamboulas & Anastasios Nikoleris (2008) Observed that passengers are willing to pay a premium to reduce the travel time in particular when the trip has to be made. This paper aims to provides insight into factors that determine passengers willingness to pay to reduce travel time for their access to rail transport. It has been found that a high percentage of passengers have zero willingness to pay and of the remaining one those using public transport have significant willingness to pay to reduce access travel time. The methodology and models are structured in such way that their transferability to any rail environment is possible, thus providing a useful tool for decisions relating to rail transport access measures.

Statement of the problem

Indian Railway provides the most efficient and economical mode of transportation in India. Now a days peoples are mostly prefer to the rail transport but in spite of this, Indian Railways lost its market share in freight and passenger segment due to lack of customers satisfaction and poor public perception on passenger service. The passenger's expect a lot of services from the Indian Railways but the railway providing few of the service in good quality and many of it service not good. when the Indian Railway is not fulfill the passenger expectation, the passengers are immediately switch over to another mode of transportation services. The Southern Railway operating in the southern states where also satisfy the passengers requirements. The study was focused to know the srvcies provided by Southern Railway and also to know the satisfaction level of the selected respondents.

Objectives:

1. To analyze the passengers satisfaction on various services of Indian Railways.
2. The study aims to identify socio economic factors of the respondents.

Research Design:

The descriptive research was applied in the research methodology of the study. The study aims at evaluating the railway passengers satisfaction and services quality of Southern Railway established by using 33 items about passengers expectation of railway passenger service quality.

i) Selection of the district: Coimbatore is selected purposively owing that second biggest city in Tamilnadu next to Chennai. Most of the people residing in Coimbatore are businessmen, employee, and educanalist and so on.

ii) Selection of the passengers: The passengers are selected conveniently. The passengers were interviewed through questionnaires while they are in travelling. 80 respondents were selected for this study.

Analysis and Interpretation:

Table No 1
Distribution of respondents- Personal Profile

Variables	Groups	No	%
Gender	Male	48	60.0
	Female	32	40.0
Age	Up to 25 yrs	40	50.0
	26-35 yrs	14	17.5
	36-45 yrs	11	13.8
	46-55 yrs	7	8.8
	Above 55 yrs	8	10.0
Educational qualification	Graduate & post graduate	62	77.5
	Professional	18	22.5
Occupational status	Student	35	43.8
	Employed	17	21.3
	Professional	19	23.8
	Business	5	6.3
	Others	4	5.0
Annual income	Individual	25	31.3
	Family	55	68.8

The table shows that males are 60 percent which is higher than the female respondents (40 percent).The age of respondents shows that the 50 percent of the passengers come under the age group of

25 years followed by 17.5 percent are in the age of 26-35 years only 8.8 percent are in the age group of 46-55 years. 77.5 percent of the passengers are graduates and post graduate and 22.5 percent of the passengers are professionals. The occupational status of the selected respondents are students 43.8 percent which is followed by professional 23.8 percent, employed 21.3 percent, business men 6.3 percent and others 5 percent respectively. 68.8 percent of the respondents have family income where as 31.3 percent of the respondents have only individual (single) income.

Table No-2
Distribution of respondents- Based on travels

Variables	Groups	No	%
Frequency of travel	Daily	7	8.8
	Weekly	8	10.0
	Monthly	24	30.0
	Half-yearly	13	16.3
	Yearly	11	13.8
	Occasionally	17	21.3
Average distance travelled	Less than 250 kms	45	56.3
	250-500 kms	21	26.3
	500-1000 kms	11	13.8
	More than 1000 kms	3	3.8
Class travelled	AC seater/ sleeper	22	27.5
	Second class Seater/sleeper	26	32.5
	General class	32	40.0
Average time travel	Less than 1 hour	22	27.5
	1-5 hour	24	30.0
	More than 5 hour	34	42.5
Nature of ticket	Season ticket holding	15	18.8
	Unreserved ticket holding	26	32.5
	Reserved ticket holding	39	48.8

30 of the passengers travelled by train monthly once and 21.3 percent of the passengers travelled occasionally followed by 16.3 percent, 13.8 percent, 10 percent and 8.8 percent are travelled half early, early, weekly and daily respectively. 56.3 percent of the passengers travelled less than 250 kms and 26.3 % of passengers travelled usually 250-500 kms, 13.8 percent of the passengers travelled upto 1000 kms and only 3.8 percent of the passengers travelled more than 1000 kms in a month. 40 percent of the passengers chose to travel by general class and followed by 32.5 percent and 27.5 percent of the passengers travelled in second class seater/ sleeper, A/C seater/ sleeper classes respectively. Average time of travel per journey of the passengers is more than 5 hrs for 42.5 percent of the passengers followed by 30 percent and 27.5 percent of the respondents travel time of up to 5 hrs, less than one hour respectively. 48.8 percent of the passengers travelled by train by reservation tickets, 32.5 of the passengers travelled with unreserved tickets and 18.8 percent of the passengers travelled with season tickets.

Satisfaction level :

Respondents were asked to express their opinion regarding satisfaction of the services provide by Indian railways on a 5 point Rating scale. The scale consisted of 33 items with ratings ranging from highly dissatisfied (1) to highly satisfied (5). Higher the ratings more will be the satisfaction on the respective items. Mean ratings were found out for all the items which are given in the following table.

Table No 3

	N	Minimum	Maximum	Mean	S.D
Ticket buying facility	80	2.00	5.00	4.21	0.66
Personal security	80	1.00	5.00	3.55	0.84
Furniture availability	80	1.00	5.00	3.51	0.85
Cleanliness of platform	80	1.00	5.00	3.28	1.13

Provision of information about train timings	80	1.00	5.00	3.76	0.86
Toilet facility	80	1.00	5.00	2.92	1.24
Canteen facility	80	1.00	5.00	3.05	1.11
Cloak room facility	80	1.00	5.00	3.52	0.91
Porter facility	80	1.00	5.00	3.76	0.86
Public address system	80	1.00	5.00	3.61	0.77
Track worthiness of train	80	1.00	5.00	3.48	0.98
Tatkal system	80	1.00	5.00	3.62	0.94
Charger facilities for laptop and mobile phone	80	1.00	5.00	3.57	1.04
Book & refreshment stall	80	1.00	5.00	3.45	1.02
Connection with other modes of transport	80	1.00	5.00	3.47	0.94
Frequency of the train on the route	80	1.00	5.00	3.62	0.93
Ease of getting to/ from the station	80	1.00	5.00	3.60	1.01
Behaviour of staff	80	1.00	5.00	3.38	0.98
Enquiry facility	80	2.00	5.00	3.65	0.90
Touch screen facility	80	1.00	5.00	3.58	1.01
Reservation facility	80	1.00	5.00	3.96	0.80
Provision of berth	80	1.00	5.00	3.72	0.87
Ventilation & lighting	80	1.00	5.00	3.60	1.01
Travelling escort security	80	1.00	5.00	3.42	0.89
Space available for entrance & exit	80	1.00	5.00	3.55	1.01
Working condition of windows	80	1.00	5.00	3.33	1.03
Catering facilities	80	1.00	5.00	3.38	1.15
Behaviour of staff	80	1.00	5.00	3.42	1.05
Convenience of seating arrangement	80	1.00	5.00	3.71	0.88
Speed of the train	80	2.00	5.00	3.80	0.84
Special compartment for disabled / women/ army	80	1.00	5.00	3.83	0.92
Bed rolls in AC Compartment	80	1.00	5.00	3.36	1.02
Digital scrolling for time & destination	80	1.00	5.00	3.62	0.84

Descriptive statistics

It is seen from the above table that most of the items have ratings vary between a minimum of 1 (highly dissatisfied) to a maximum of 5 (highly satisfied) . The table shows that the mean ratings for most of the items fall between 3 and 4 i.e the average ratings range between “ neither satisfied” and “norsatisfied”. Ticket buying facility is found to have the highest mean rating of 4.21, i.e more than satisfied the lowest mean rating is 2.92 for ‘ Toilet facilities’ i.e “neither satisfied nor dissatisfied”.

Analysis of satisfaction scores

Satisfaction scores were found out by adding the ratings of all the 33 items given under the satisfactions scale. Higher the score more will be the overall satisfaction of the respondents. These scores were further analyzed based on personal and travel related variables.

Table 4
Mean satisfaction scores by Demographic characteristics

Variables	Groups	Mean	S.D	No	t-value	df	Table value	Sig
Gender	Male	117.85	15.40	48	0.315	78	1.991	Ns
	Female	116.75	15.28	32				
Educational qualification	Graduate & post graduate	116.84	15.59	62	0.621	78	1.991	Ns
	Professional	119.39	14.34	18				
Annual income	Individual	118.92	13.66	25	0.593	78	1.991	Ns
	Family	116.73	16.02	55				

The mean score of different groups of demographic characteristics were compared using t- test. The test result shows that the calculated t –values are less than the, table value at 5 **percent** level and hence it can be inferred that the mean satisfaction scores do not defer significantly among the groups pf demographic variables namely gender, educational qualification and annual income.

Table 5
Mean Table

Variables	Group	Mean	S.D	No
Age	Up to 25 yrs	117.03	17.69	40
	26 -35 yrs	117.50	15.51	14
	36-45 yrs	114.73	13.51	11
	46-55 yrs	120.57	8.64	7
	Above 55 yrs	120.13	9.25	8
Occupational status	Student	117.31	17.19	35
	Employed	115.82	12.48	17
	Professional	119.00	16.39	19
	Business	120.80	6.72	5
	Others	113.25	14.66	4
Frequency of train travel	Daily	120.86	20.89	7
	Weekly	123.63	14.44	8
	Monthly	116.08	11.65	24
	Half-yearly	113.08	18.80	13
	Yearly	119.91	13.69	11
	Occasionally	116.65	16.47	17
Average distance travelled	Less than 250 kms	115.22	15.13	45
	250-500 kms	122.10	14.54	21
	500-1000 kms	116.73	15.49	11
	More than 1000 kms	120.00	22.52	3
Classes which travel normally	AC seater/ sleeper	117.18	14.76	22
	II class seater/ sleeper	115.88	16.10	26
	General class	118.81	15.28	32
Average time of travel per journey	Less than 1 hour	117.68	15.80	22
	1-5 hour	112.75	17.86	24
	More than 5 hour	120.53	12.29	34
Nature of ticket	Season ticket holding	119.13	18.68	15
	Unreserved ticket holding	117.81	14.97	26
	Reserved ticket holding	116.49	14.37	39

The table shows that mean satisfaction score for age group of 46-55 years is 120.57 which is higher than age group of 25 years (117.03). The mean score for occupational status were business travelers is 120.80 which is higher than the professionals (119) .When Frequency of train travel is considered the passengers travelling by weekly is having mean score of 123.63 which is higher than those who travelled daily(120.86). According to average distance travelled by the passengers in the table shows that the mean score for the distance of more than 1000 km is 120 which is higher than the distance travelled by the passengers of less than 250 kms. The table shows that the mean score for general class is 118.81 which is

higher than the second class seater/ sleeper mean and one of 115.88. The mean score for average time of more than 5 hours travel is 120.53 which is higher than the travel time upto 5 hours (112.75). The table shows that the mean score for season ticket holding is 119.13 which is higher than the reserved ticket holding mean score of 116.49.

Table 6
Comparison of mean satisfaction scores by demographic profile and travel ANOVA

Variables	Sources of variation	Sum of squares	df	Mean square	F	Table value	Sig
Age	Between groups	214.141	4	53.535	0.221	2.495	Ns
	Within groups	18199.246	75	242.657			
Occupational status	Between groups	217.824	4	54.456	0.224	2.494	Ns
	Within groups	18195.563	75	242.608			
Frequency of train travel	Between groups	757.108	5	151.422	0.635	2.338	Ns
	Within groups	17656.280	74	238.598			
Average distance travelled	Between groups	701.618	3	233.873	1.004	2.725	Ns
	Within groups	17711.769	76	233.050			
Classes which travel normally	Between groups	124.586	2	62.293	0.262	3.115	Ns
	Within groups	18288.802	77	237.517			
Average time of travel per journey	Between groups	853.644	2	426.822	1.872	3.115	Ns
	Within groups	17559.743	77	228.049			
Nature of ticket	Between groups	81.872	2	40.936	0.172	3.115	Ns
	Within groups	18331.515	77	238.072			

- **Ns-Notsignificant**

One way ANOVA was applied to test for significant differences in the mean satisfaction scores among groups of Age, Occupational status, Frequency of train travel, Average distance travelled, Classes which travel normally, Average time of travel per journey and Nature of ticket the ANOVA results shows that calculated F-ratio values are less than their respective table values at 5 **percent** level of signification for Age, Occupational status, Frequency of train travel, Average distance travelled, Classes which travel normally, Average time of travel per journey and Nature of ticket. Since the calculated values are less than the table values. It is inferred that the mean satisfaction scores do not differ significantly among the groups of all variables. However significant f- values was observed for nonsignificant.

Conclusion:

A customer satisfaction is one of the fastest growing areas of market research. Though Southern Railway is in the path of modernization it has to go a long way to secure its target. As regards catering service, there are some constraints prevailing in Southern Railway. In the fields of cleanliness, provision of water, accommodation in carriages and lavatory facilities still there is long way to go. The common man judges the operating efficiency of railways from the point of view of punctuality with which the passenger trains and goods trains leave a station and reach their destination including intermediary stoppages. On this aspect our railways are most vulnerable to criticism. Railway should take vigorous efforts to maintain high punctuality ratio. Most of the passengers choose to travel by general class and also travelled in second class seater / sleeper. The mean satisfaction score do not differ significantly among the groups of all variables. So satisfaction scores by demographic profile and travel is not significant.