



A STUDY ON SERVICE QUALITY AND PASSENGER SATISFACTION ON INDIAN RAILWAYS

AAKASH B¹, Ms. AKSHAYA SUDARSHANA²

REGISTER No: 212AK0833

²M.Com Assistant Professor

DEPARTMENT OF B.COM. PA

SRI KRISHNA ADITHYA COLLEGE OF ARTS ANF SCIENCE

INTRODUCTION:

Customer satisfaction and retention is one of the key determinants to measure the quality of products or services and hence the Indian Railway performance. Due to the growing importance of quality in our life, customers desire to enjoy a relatively better quality of products or availing superior quality services has been increased. India is the Second highly populated country of the world and its rapid population growth also contributes to an increase of people's travelling demands. In Indian Passenger trains is the cheapest and comfortable mode of travelling especially for long distances.

This paper aims to investigate the passengers' perceptions about the service quality of rail transport system in Indian Railways while travelling between the major cities especially from Kerala to Delhi, Mumbai and Delhi. A modified SERVQUAL instrument including eight service quality constructs: Reliability, assurance, tangibles, timeliness, responsiveness, information system, empathy, food and safety and security were employed to measure the passengers' perceptions about the service quality of railways.

STATEMENT OF PROBLEM

This study aims to investigate the customers (passengers) perceptions about the service quality of only available public rail transport system in India. Demand for public transportation is high due to its rapid population growth. Trains, a major public transport, in India hold a unique position in the transportation sector of country and are considered to be the key determinant for the national growth.

OBJECTIVES OF THE STUDY

- To study the service quality and passenger's satisfaction on Indian Railways.
- To study about the customer ideas, preference, attitude towards Indian Railways.
- To list out the problems which consumer face during the travel in Indian Railways.

SCOPE OF THE STUDY

- To examine and assess the quality of services delivered to the passengers by the Indian railways.
- To measure the passenger perceptions about the quality of services delivered during travelling or making travelling arrangements.
- To study the satisfaction of passengers in India. It includes the satisfaction of consumers about service provided, food, cost saving.

LIMITATIONS OF THE STUDY

- The study on service quality and consumer satisfaction on Indian Railways is limited to Coimbatore city only.
- This study is limited to 150 respondents.
- The customers may uncertain to provide necessary information.

REVIEW OF LITERATURE

Gomadheeswaran and Sivakumar (2014) entitled study on “passengers” satisfaction towards railway services with special reference to Coimbatore junction”. The main objectives of study are to analyze the passengers” satisfaction of various services provided by the Indian railways. There are 100 respondents have been used this study. ANOVA, coefficient of correlation and simple percentage are the statistical tools used in this study. The study concludes or reveals that the respondents totally dissatisfied the railway service in Coimbatore junction. Such as unauthorized vendor, beggars, cleanness of compartment and food etc.

Vimal kumar and Jitin (2015) in their study, A study on passenger satisfaction towards Railway services with reference to Coimbatore Junction tells that transport is the movement of people, animals and goods from one location to another location. Transportation infrastructure assumes a great in developing countries because every sector depends on the suitable transportation.

D. Anbupriya, Dr. S. Subadra (2016) entitled study on “Passengers satisfaction towards railway services. Objective of the study is to identify the travel factors influencing the passengers of southern railways. There are 400 out of 460 respondents have been used this study satisfaction of service quality were analyzed using various tools and ANOVA was used to identify the significant difference concludes or reveals that the totally responds considered positivity, that would be a strong environment to the passengers and railways.

Maheswari and Dinesh kumar (2016) entitles study on „amenities provided by southern railways”. The objective of the study is to know the profile of Indian Railways and the facilities provided to them by the railway. The sample size decided for the study was 200 and analyzed using statistical tools like chi-square. The result of the study reveals that proper measures have been taken for the problems faced by the passengers.

COMPANY PROFILE:

The Indian Railways is a principal service provider in the transport sector in the country. It has already crossed 150 years of its existence. The first train was introduced in India on 16th April, 1853 between Boribandar (Mumbai V.T.) and Thane. The Indian Railways has successfully adapted itself to the changing needs of travel and transport in the country. It has also absorbed various advancements in the field of railway technology and kept itself equipped continually to meet the growing requirements of passenger and freight traffic.



VISION

To be a leading organisation in the field of development, operation and maintenance of railway stations eith passenger amenities of international standards.

MISSION

To develop self-sustainable railway stations in the country with high standards of safety, comfort, user friendly passenger amenities, value added services and efficiency by adopting the best technological practices, sound financial strategy and optimum utilization of resources.

HISTORY OF INDIAN RAILWAYS

The first railway proposals for India were made in Madras in 1832. India's first railway line was named Red Hill Railroad and was built by Arthur Cotton to transport granite for road-building. It ran from the Red Hills in Chennai to the Chintadripet bridge in Madras and was opened on 12 September 1837. This railway, the first on the Indian Subcontinent, was only used for freight transport. In 1845, the Godavari Dam Construction Railway was built by Cotton at Dowleswaram in Rajahmundry, to supply stone for the construction of a dam over the Godavari River. In 1851, the Solani Aqueduct Railway was built by Proby Cautley in Roorkee to transport construction materials for an aqueduct over the Solani River. These railway tracks were dismantled after each project was completed and no longer exist.

ANALYSIS AND INTERPRETATION OF DATA

PERCENTAGE ANALYSIS

Percentage analysis involves the examination and interpretation of data by expressing values as percentages of a whole. It aids in understanding the relative proportions of different components within a dataset, facilitating comparisons and identifying trends or patterns. This method is commonly used in financial analysis, market research, and various other fields to provide insights into the distribution or composition of data sets.

FORMULA:

NO OF RESPONDENTS

$PERCENTAGE = \frac{\text{NO OF RESPONDENTS}}{\text{TOTAL NO. OF RESPONDENTS}} * 100$

TOTAL NO. OF RESPONDENTS

Table no .4.1.1

Table showing monthly income of the respondents

Income	Frequency	Percentage
10000-20000	69	46%
20000-30000	46	30.7%
30000-40000	21	14%
Above 40000	14	9.3%
Total	150	100%

Source: Primary data

Interpretation:

The above table shows that 46% of the respondents earning Rs.10000-20000, 30.7% of the respondents earning Rs.20000-30000, 14% of respondents earning Rs. 30000-40000 and 9.3% of the respondents are earning above Rs. 40000.

Chart no 4.1.1

Chart showing monthly income of the respondents

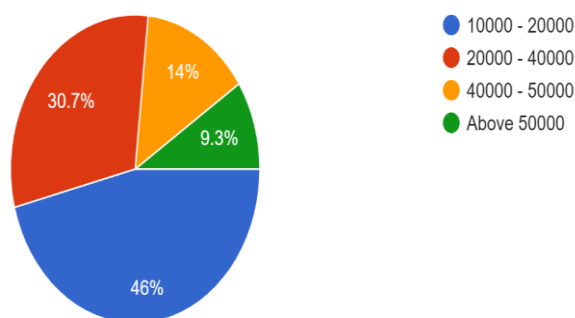


Table No.4.1.2

Table showing respondent's willingness to travel by train

Willingness to travel in train	Frequency	Percentage

YES	130	86.7%
NO	20	13.3%
Total	150	100%

Source: Primary data

Interpretation:

The above table shows that 86.7% of the respondents will/like to travel by train where 13.3% will not travel by train.

Chart no 4.1.2
Chart showing respondent's willingness to travel by train

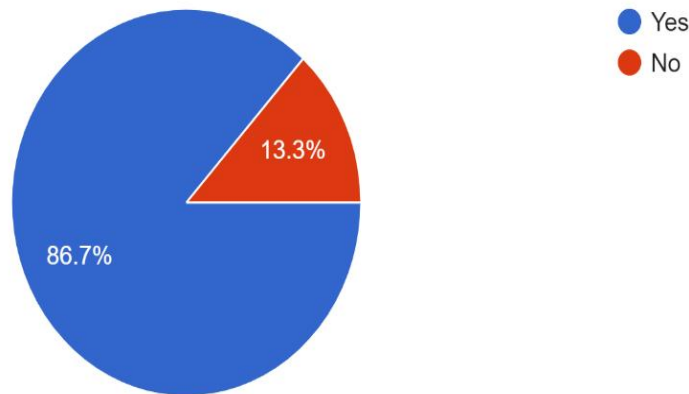


Table no. 4.1.3
Table showing frequency of travelling by train by the respondents

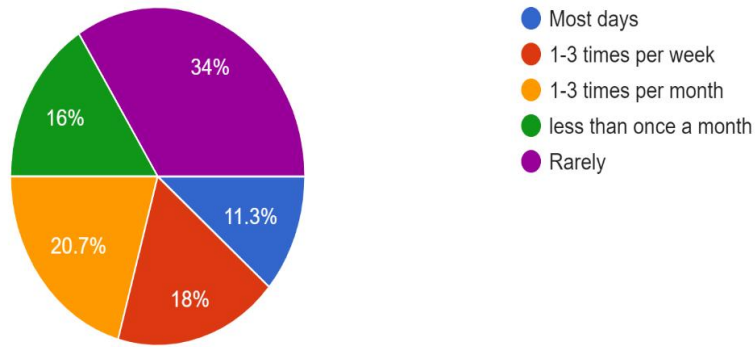
Source: Primary data

Travelling in train	Frequency	Percentage
Most day	18	11.3%
1-3 times per week	27	18%
1-3 times per month	30	20.7%
Less than once a month	24	16%
Rarely	51	34%
Total	150	100%

Interpretation:

The above table shows that 34% of the respondents often travel by train, 20.7% of the respondents travel by train 1-3 times per month, 18% of the respondents travel by train 1-3 times per week, 16% of the respondents travel by train less than once a month and 11.3% of the respondents travel by train on most days.

Chart 4.1.3
Chart showing frequency of travelling by train by the respondents



RANK ANALYSIS

Ranking establishes a relationship among a set of items where each item is either considered higher, lower, or equal in rank to another. In mathematical terms, this is referred to as a weak order or total pre-order of objects. Unlike a total order, a ranking doesn't necessarily establish a clear hierarchy among all objects, as two distinct items can share the same rank. However, the rankings themselves follow a total order. For instance, materials can be pre-ordered by hardness, while the degrees of hardness form a total order. Analyzing data based on rankings often involves using non-parametric statistics.

Table no. 4.2.1

Preference	R1	R2	R3	R4	R5	R6	R7	Total	Rank
Availability of power	115	12	21	16	25	12	77	278	7
Sitting Arrangements	5	232	24	16	20	66	14	377	6
Ventilation Facilities	2	16	333	28	55	36	35	505	5
Sanitation facilities	8	4	36	452	55	30	35	602	4
Catering facilities	3	12	40	530	48	16	63	712	3
Infrastructure facilities	2	22	12	20	45	654	70	825	2
Appearance of railway personnel	15	10	6	28	20	54	756	889	1

Table showing Rank of satisfaction on services provided by railways

Interpretation

The table shows that the passenger's satisfied on Appearance of railway personnel followed by Infrastructure facilities, Catering facilities, Sanitation facilities, Ventilation facilities, Sitting arrangements and Availability of power services provided by Railways.

Table no. 4.2.2

Table showing ranking of responsiveness of railway employees and management process

Preference	R1	R2	R3	R4	R5	R6	Total	Rank
Willingness of the railway staff to help when needed	104	14	24	12	30	132	316	5
Behaviour of the railway staff	4	216	15	36	100	24	395	4
Service by railway doctors	6	10	342	80	15	12	465	3
Responsiveness of railway police	7	6	57	432	35	36	573	2
Approachability of the top management	4	46	6	12	540	60	668	1

INTERPRETATION:

The passengers of railway are highly satisfied with the approachability of the top management which is Ranked 1 followed by Responsiveness of railway police, Service by railway doctors, Behavior of railway staff and willingness of the railway staff to help when it is needed by the train passengers.

WEIGHTED AVERAGE SCORE METHOD:

A weighted average is a type of average where each data point in the dataset is given a specific weight before being combined to produce a final average value. In this method, the weight assigned to each data point reflects its relative significance in the calculation. This weighting procedure ensures that each individual quantity contributes to the average proportionately to its assigned importance, similar to considering multiple identical items with the same value involved in the average.

To compute a weighted average score, various scores or grades are utilized alongside assigned weights or percentages. In order to calculate a weighted average with percentages, each score within a category is initially multiplied by its corresponding percentage. Subsequently, the resulting values are summed together.

FORMULA:

Total of Rank

Weighted Average Score =

Total number of Respondent

Table no. 4.3.1
Table showing Rating of ticketing process

Preference	Excellent	Good	Neutral	Poor	Very Poor	Total	Weighted average	Rank
Number of ticket counters	440	84	69	14	11	618	4.12	1
Attitude of ticketing staff	40	364	84	36	5	529	3.53	2
Efficiency of ticketing staff	100	108	273	16	4	501	3.34	3
Self service	100	112	78	144	4	438	2.92	4
Information provided by ticketing staff	150	72	75	16	69	382	2.55	5

INTERPRETATION:

The above table shows that Number of ticket counters Ranked 1 in the ticketing process followed by Attitude of ticketing staff, Efficiency if Ticketing Staff, Self service, Information provided by ticketing staff.

Table no. 4.3.2
Table showing Rating of Catering services in train

Preference	Always	Mostly	Sometimes	Never	Not used	Total	Weighted average	Rank
Are packed items are sold at MRP/ Notified rate	520	76	57	6	5	664	4.43	1
Beverages sold at notified rates?	50	416	75	14	4	559	3.73	2
Is the quality of food maintained?	85	76	279	30	6	476	3.17	3
Do you catering staff maintain personal hygiene?	65	88	81	126	25	385	2.57	4

INTERPRETATION:

The above table shows that passenger satisfaction on catering services Packed items are sold at MRP/Notified rate Ranked 1 followed by beverages sold at notified rates, Is the quality of food maintained, catering staff maintain personal hygiene.

FINDING SUGGESTION AND CONCLUSION

PERCENTAGE ANALYSIS:

- 46% of the respondents are earning 10000-20000.
- 86.7% of the respondents travelled/ like to travel in train.
- 34% of the respondents will travel rarely in train.

RANK ANALYSIS:

- The respondents are satisfied on Appearance of railway personnel followed by Infrastructure facilities, Catering facilities, Sanitation facilities, Ventilation facilities, Sitting arrangements and Availability of power services provided by Railways.
- The respondents are highly satisfied with the approachability of the top management which is Ranked 1 followed by Responsiveness of railway police, Service by railway doctors, Behavior of railway staff and willingness of the railway staff to help when it is needed by the train passengers.

WEIGHTED AVERAGE ANALYSIS:

- The respondents are rated that Number of ticket counters Ranked 1 in the ticketing process followed by Attitude of ticketing staff, Efficiency if Ticketing Staff, Self service, Information provided by ticketing staff.
- The respondents are rated that Packed items are sold at MRP/Notified rate Ranked 1 followed by beverages sold at notified rates, Is the quality of food maintained, catering staff maintain personal hygiene.

SUGGESTIONS:

- Focus on maintaining cleanliness on trains and at stations to create a pleasant environment for passengers and Upgrade onboard amenities to provide a more comfortable and enjoyable journey experience.

- Ensure timely departures and arrivals to improve efficiency and reduce passenger inconvenience and Enhance customer service by training staff to be more responsive and helpful to passengers' needs.

CONCLUSION:

- The study is based on the marketing problems of passengers of Indian railways. The study results its essential to emphasize the critical role of cleanliness, onboard amenities punctuality, customer service and safety in enhancing the overall experience for passengers.
- The study was conduct through surveys, collected many information regarding my study and analysis where made for the responses given by the respondents. It also conclude that improvement over service quality in Indian railways.

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1. <https://www.irctc.co.in>

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