

A Study on Customer Satisfaction Towards E-Service of Indian Railways

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Abstract

All sectors in India are upgrading their services by moving towards e-services. Indian Railways is not an exception to this. It also started providing e-services such as ticket booking, food orders and required information like train timings, status of trains. Awareness about these e-services among the general public is less. But, day by day the awareness gets increased and so the usage also gets increased. People face some problems while using these services. This paper attempts to study the usage pattern of e-services offered by Indian Railways, problems faced by the customers and their level of satisfaction with regard to the e-services. The study shows that maximum of the respondents come to know about the e-services through IRCTC, mostly they use for ticket booking because of the access at anywhere. The respondents opine server problem and more advertisements are the major problems they face. Nevertheless, they are very much satisfied with the e-services rendered by the Indian Railways.

Keywords: Indian Railways, E-services of Indian Railways, IRCTC

1. Introduction

Indian Railways began in 1853 with the first passenger train running From Bombay to Thane, 34 km journey marking the start of a vast network built by the British primarily for trade and military control, expanding rapidly to connect the subcontinent and eventually becoming India's state-owned, crucial transport system. Indian Railways is one of the largest rail networks in the world. Its route length is spread over 1,23,000 kilo meters. It operates more than 13,000 passenger trains and 9,000 freight trains. There are around 20 million people travel in Indian Railways every day. Apart from transportation, Indian Railways also provide other services such as accommodation, food service and cab service. With the advancement in technology, Indian Railways started providing online services directly to the consumers. IRCTC was established in 2002. More than 1.3 million tickets are booked online through IRCTC every day. This paper aims at studying the factors influencing the usage of e-services provided by the Indian Railways, problems faced by the consumers and their level of satisfaction with regard to e-services of Indian Railways.

2. Statement of Problem

There are many studies about Indian Railways with regards to passenger satisfaction. But, studies related to E-services provided by the Indian Railways are very limited. Hence, this study is undertaken in Chennai city to know the opinion of the railway passengers.

Objectives of the study

1. To study the socio-economic profile of the respondents
2. To identify the factors influencing the usage of E-service of Indian Railways
3. To identify the problems faced by passengers while using E-service of Indian Railways.
4. To analyse the level of satisfaction of passengers using E-service offered by Indian Railways

Research Methodology

The research design is descriptive. Both primary data and secondary data were collected for the study. The population of the study is people using e-services for booking railway tickets. Sampling frame is not available and hence non probability convenience sampling method was used to collect the data. The sample size was taken as 120. The samples were chosen from different parts of Chennai division of Southern Railway. The primary data were collected through a structured questionnaire and the secondary data were collected from books, magazines and journals.

Hypothesis

Based upon the research objectives, the following hypotheses are formulated:

1. There is no significant difference between gender and overall satisfaction on e-services provided by Indian Railways.
2. There is no significant difference between level of income and overall satisfaction on e-services provided by Indian Railways.

Statistical tools used

Mean, Median, Standard Deviation, Minimum, Maximum, t-test and One-way Anova

Review of literature

Suresh Babu (2005) the study revealed that railways are setting up the computerized reservation centre's and have authorized out-agency bookings and hence all these facilities reveal the efficiency of reservation services of the railways and the study also revealed that the railways is the only organization providing maximum passenger reservation services to the travelling public most efficiently and effectively

Srimathy (2021) study pointed out that South India is noted for the large number of important Hindu festivals. Not less than 175 festivals are held annually at southern part of India. Special trains were operated during festival time. Temporary waiting halls, latrines etc., were provided at Kumbakonam and seventeen other stations on festival occasions.

Jaishree. K (2022) reveals Indian Rail transport is one of the major mode of transportation, so it must offer high comfort level for the passengers and the staff. However, the comfort that passengers experience is a highly complex and individual phenomenon. The improvement of passenger comfort while travelling has been the subject of intense interest for many train manufacturers

Sanjai Kumar (2023) the study revealed that the on-line reservation system was launched in August 2002 under the guidance of IRCTC (Indian Railway Catering and Tourism Corporation). The on-line reservation system was an extension of the from schedule time. Passenger reservation system (PRS) and served as an interface between the uses and the passenger reservation system. Another innovations of the Indian Railways were integrated voice response system (IVRS) unreserved ticketing system, National train enquiry system (NTES), tele-booking services and wireless services.

Ravishankar (2023) analyzed an empirical study about consumer image of Indian railways, the objectives of this study were to study the general image of the Indian railways and to study the specific image of the Indian railways related to the services before travel, services during the travel and services after the travel

Vijayan (2023) summarized Metro City Railway Stations like Delhi, Mumbai need to be modernized to provide world – class passenger amenities and services to the large multitude of passengers using these stations. IR is planning to do so by attracting private investments in the area by allowing the areas around the stations and the air space above platform to be commercially developed while operational/passenger.

Vinoba Agarwal(2021)the researcher attempts to devise a model to map a few of the most strategic location of Delhi using the available modes of public transportation i.e. bus and metro rail, based on distance, time and cost constraints. Research found to avoid congestion, best possible alternative route that should be taken as metro route at peak hours, and in case of travel cost consideration, metro route has higher travelling cost in comparison to bus route. The cost minimization can be possible by reducing waiting time and restructuring the travelling cost in case of metro rail.

From the reviews, it is understood that there are only limited studies about e-services provided by Indian Railways and so there is a research gap to proceed with the present study.

Analysis and Discussion

Table-1 Awareness of E-service of Indian Railways

Awareness	Frequency	Percentage
Self interest	14	11.67
Friends and relations	31	25.83
Media	10	8.33
IRCTC	38	31.67
Agent	27	22.50
Total	120	100.00

Source: primary data

Interpretation

Table 1 shows how the respondents come to know about the e-services of Indian Railways. It states that maximum of the respondents (31.67 per cent) are aware of Railway E-services via IRCTC, followed by awareness through their friends and relations (25.83 per cent), through Agent (22.50%), by self interest (11.67 per cent) and though Media (8.33 per cent). It is understood that IRCTC makes many people to be aware of the e-services of Indian Railways.

Table-2 Frequency of usage of E-service

Usage	Frequency	Percentage
Daily	11	9.17
Weekly once	45	37.5

Monthly once	51	42.5
Occasionally	9	17.5
Rarely	4	0.33
Total	120	100.00

Source: primary data

Interpretation

Table 3 shows that maximum of respondents (42.5 per cent) use E-services monthly once, followed by weekly once (37.5 per cent), use occasionally (17.5per cent) and 9.17 per cent use daily.

Table -3 Period of usage of E-service

Period of usage	Frequency	Percentage
Less than 3 years	22	18.33
3 to 5 years	49	40.83
5 to 10 years	35	29.17
More than 10 years	14	11.67
Total	120	100.00

Source: Primary data

Interpretation

Table 4 shows that maximum of the respondents (40.83%) use E-services for 3-5 years, followed by 5-10 years (29.17%). For less than 3 years, 18.33% use it and 11.67 per cent use it for more than 10 years.

Table-4 Purpose of using E-service

Purpose of usage	Frequency	Percentage
Online ticket booking	97	80.33
Food service	53	44.17
Accommodation	49	40.83
Cab service	23	19.17
Availability and timing of trains	87	72.50
Seat availability	77	64.17
Enquiry	19	15.83

Source: primary data multiple response

Interpretation

This table reveals that majority of the respondents (80.33percent) avail the e-service of online ticket booking. To check the availability of trains and train timings72.50 percent us it. To check seat

availability, 64.17 percent of respondents use. For accommodation purpose, 40.83 per cent of the respondents use it. Other services are used only by lesser number of respondents.

Table-5 Reasons for using E-services of Indian Railways

Reason	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean score
Access at any where	61 (50.83%)	47 (39.17%)	12 (10%)	0	0	4.40
Cashless transaction	36 (30%)	84 (70%)	0	0	0	4.30
Simple to understand	35 (29.17%)	73 (60.83%)	12 (10%)	0	0	4.19
24 hours service	24 (20%)	84 (70%)	12 (10%)	0	0	4.10
Minimise the waiting time at counters	48 (40%)	48 (40%)	0	12 (10%)	12 (10%)	3.90
Awareness and benefits of service	0	60 (50%)	36 (30%)	12 (10%)	12 (10%)	3.20
Easy to use	36 (30%)	72 (60%)	12 (10%)	0	0	4.20
Safety and security	24 (20%)	60 (50%)	24 (20%)	12 (10%)	0	3.80
Technology upgrade	11 (9.17%)	73 (60.83%)	12 (10%)	24 (20%)	0	3.59
Response for grievances	0	72 (60%)	24 (20%)	12 (10%)	12 (10%)	3.30
Nominal service charges	0	72 (60%)	12 (10%)	24 (20%)	12 (10%)	3.20
Self interest	2 (1.67)	58 (48.33%)	12 (10%)	36 (30%)	12 (10%)	3.02

Source: primary data

Interpretation

The table 6 shows that Access at anywhere scores the highest (4.40) among the reasons for using E-services, followed by Cashless transactions (4.30) and Easy to use (4.20) and others.

Table-6

Ranking of the problems faced by passengers while using E-service

Problems	Mean score	Rank
Server problem	1.14	1
More advertisements	4.23	2
No safe online cash transaction	4.28	3
Automatic cancellation of tickets	4.31	4
More procedures	4.76	5
Time consuming	4.80	6
More charges	5.79	7
Lack of privacy	6.69	8

Source: Primary data

Interpretation

Table 7 shows that server problems is the major problem faced by the respondents with a mean score of 1.14, followed by more advertisements (4.23). Safety issue is considered to be the next problem (4.28) followed by others.

Table-7 Passengers' level of satisfaction towards E-service of Indian Railways

Level of satisfaction	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly dissatisfied	Mean Score
Minimise the waiting time	83 (69.17%)	37 (30.83%)	0	0	0	4.69
Cashless transaction	73 (60.83%)	47 (39.17%)	0	0	0	4.61
24/7 availability of information	48 (40%)	60 (50%)	12 (10%)	0	0	4.30

Quick Accessibility	25 (20.83%)	59 (49.17%)	24 (20%)	12 (10%)	0	3.81
Comfort	12 (10%)	72 (60%)	36 (30%)	0	0	3.80
Innovation in Technology	0	95 (79.17%)	12 (10%)	13 (10.83%)	0	3.68
Appropriate service	0	83 (69.17%)	25 (20.83%)	12 (10%)	0	3.59
Reliability	12 (10%)	60 (50%)	24 (20%)	24 (20%)	0	3.50

Source: Primary data

Interpretation

Table 8 shows that Minimisation of Waiting time gives the highest satisfaction followed by cashless transaction and others. Majority of the respondents are highly satisfied or satisfied with the factors given.

Table – 8 Statistics relating to overall satisfaction of e-services

Valid	120
Missing	0
Mean	71.1250
Median	71.0000
Std. Deviation	5.82022
Minimum	62.00
Maximum	84.00

Table 9 states that the average overall satisfaction of the respondents on e-services provided by the Indian Railways is around 71 per cent. The minimum is 62 per cent and the maximum is 84 per cent. It is inferred that majority of the respondents have a high overall satisfaction on the e-services provided by the Indian Railways.

Testing of hypotheses

Hypothesis 1: There is no significant difference between gender and overall satisfaction on e-services provided by Indian Railways.

Group Statistics

Gender	N	Mean	Std. Deviation	Std. Error Mean
Overall satisfaction	96	70.8333	6.32899	.64595
Gender	24	72.2917	2.83578	.57885

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Overall satisfaction	Equal variances assumed	15.285	.000	-1.099	118	.274	-1.45833	1.32712	-4.08640	1.16973
	Equal variances not assumed			-1.681	84.300	.096	-1.45833	.86736	-3.18309	.26643

Since the p value (0.096) is not less than 0.05, alternative hypothesis is rejected. That is, There is no significant difference between gender and overall satisfaction on e-services provided by Indian Railways. Hypothesis 2: There is no significant difference between level of income and overall satisfaction on e-services provided by Indian Railways.

ANOVA

Overall Satisfaction

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	518.923	4	129.731	4.248	.003
Within Groups	3512.202	115	30.541		
Total	4031.125	119			

Since the p value (0.003) is less than 0.05, alternative hypothesis is accepted. That is, there is a significant difference between level of income and overall satisfaction on e-services provided by Indian Railways.

Suggestions

1. Government of India must provide internet facilities in all places with adequate speed.
2. IRCTC must make arrangement in such a way that there is no server problem.
3. Advertisements in IRCTC website may be minimised.
4. Awareness about the usage of e-services of Indian Railways must be made among the general public.
5. Indian Railways may increase the number of e-services offered.

Conclusion

The study shows that e-services offered by the Indian Railways is used by many people. The respondents in spite of facing some problems are very much satisfied with the services provided. Awareness about the e-services offered by the Indian Railways must be made to the general public so that the usage can be increased and the public at large may be benefited.

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