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REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

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RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

SCOPE FOR FURTHER RESEARCH

ACKNOWLEDGMENTS

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APPENDIX/ANNEXURE

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CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

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- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

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- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, KurukshetraUniversity, Kurukshetra.

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- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

MEASURING SERVICE QUALITY OF RAILWAY PLATFORMS IN INDIA: A CASE-STUDY OF EAST-COAST RAILWAYS

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ABSTRACT

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. Railways provide the citizens of India as well as foreign nationals visiting India with a convenient, accessible, and affordable mode of transportation. Though the railway is the lifeline of Indian economy and society, it cannot be ignored that its services are far from healthy and satisfactory. A thorough review of literature revealed that scholars have undertaken studies on various aspects of railway services, but platforms have failed to attract much of their attention. In the present study a survey of passengers (customers) was conducted with the aim to measure their satisfaction towards the services of railway platforms of east-coast railways on the basis of a few components of service quality of railway platforms. Factor analysis has been employed in this study to identify the most important factors of customer satisfaction with service quality of railway platforms. The findings of the study reveals that four factors that are considered important by the passengers for achieving satisfaction with railway platforms are basic facilities, refreshments, information system efficiency and security for and behaviour towards the passengers. A lot of insights on the managerial and theoretical implications were developed from the survey results and has been discussed in this paper.

KEYWORDS

Indian Railways, Service Quality, Customer Satisfaction, Factor Analysis, Varimax Rotation.

INTRODUCTION

Some of the characteristics which differentiate services from physical goods are intangibility, perishability, simultaneity, and heterogeneity which make it difficult to measure the service quality (Zeithaml, Parasuraman and Berry, 1985). Therefore, to control quality and offer consistent service is one of the major problems faced by the service provider. The quality can be technically and statistically specified and also be checked for conformance with the specified standards much before it reaches to the customer, in case of tangible products. But, in case of a service, since production and consumption occurs simultaneously, the buffer available with a tangible product does not exist for a service. Collier (1987) says that a service has a lot of intangible dimensions including reliability, responsiveness, competence, courtesy, friendliness, security, ambience, etc. which are qualitative by nature and whose value is subjective. The subjectivity makes it imperative for the marketers to take into cognizance the customer perceptions of service quality so that the service package defined and planned by the marketers is close to the one that is expected by the customer. Service quality is characterized by the customer perception of service. What counts in services are the quality as it is perceived by the customers, i.e., the customer is the sole judge of quality (Berry, 1980). This paper is an attempt to assess the quality of railway services through measuring the customer satisfaction in the context of railway platforms, with special reference to platforms in the East Coast Railways.

REVIEW OF LITERATURE

Over the last few years, there has been a considerable research on different aspects of service quality leading to a sound conceptual base for both practitioners and researchers. Authors (Parasuraman, Zeithaml and Berry, 1985, 1988; Carman, 1990) agree that service quality is an abstract concept, difficult to define and measure. An article on 'Trends in Management'[1] revealed that quality was the top most concern of CEOs across the world. It said:

"Quality changed the nature of business competition and, perhaps more than any other factor, dictated how companies make products or deliver services. In the global economy, quality is just the entry ticket. You'll battle many competitors who have attained it. The next step is figuring out how to differentiate you."

On service quality modelling, Grönroos (1984) model divides the customer's perceptions of any particular service into two dimensions, namely technical and functional quality. In conceptualizing the basic service quality model, Parasuraman et al. (1985) identified 10 key determinants of service quality as perceived by the service provider and the consumer, namely, reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer, and tangibility to formulate a service quality framework, SERVQUAL. Later (in 1988), they modified the framework to five determinants: reliability, assurance, tangibles, empathy, and responsiveness, or RATER.

In the context of transport services, the literature review shows that researchers have identified different factors of quality in the context of different services. Eboli and Mazzulla (2007) measured customer satisfaction in the context of bus service on various factors including availability of shelter and benches at bus stops, cleanliness, overcrowding, information system, safety, personnel security, helpfulness of personnel, and physical condition of bus stops. Vanniarajan and

[1] World Executive's Digest, July 1995, pp 14-26.

Stephen (2008) identified the attributes that passengers use to evaluate the service quality of Indian Railways as reliability, assurance, empathy, tangibles, and responsiveness. It was found that passengers were "moderately satisfied" to "satisfied" on these dimensions.

Basis the findings of the above review of literature, in the present research the heterogeneous service contexts are taken for developing a sound theoretical base and for identifying major common attributes of service quality irrespective of the context as well as within the context.

NEED/IMPORTANCE OF THE STUDY

If rail travel is to become the mode of choice over air and road, rather than a forced sale, passengers will demand much higher levels of comfort, convenience and environment from their station facilities which gives them the first impression and research also confirms the importance of first impressions. Consumer Research can help to identify the consumer priorities for station upgrading. Indian Railways is the largest rail network in Asia and the world's second largest under one management. It is a multi-gauge, multi-traction system covering 108,706 kilometers, with 6,853 stations across the length and breadth of the country. It runs over 11,000 trains, of which more than 7,000 are passenger trains that carry about 13 million passengers every day. It is the largest employer in the organized sector in India, with a workforce of approximately 1.54 million. (www.indianrailway.gov.in). Indian Railways is divided into 17 zones for facilitating smooth administration and the East Coast Railways is one of them headquartered at Bhubaneswar and its network extends over a large area of eastern India, covering the states of Andhra Pradesh, Jharkhand, Odisha and West Bengal.

The major mode of transport in the country is Indian Railways for passengers as well as freight due to its large network, number of trains, and affordability. It is the only player; a monopoly on the industry front. The majority of its customers are illiterate / semi educated and low/middle income with no/low consciousness for quality aspects of service on the market front. The Indian Railways provide its customers a convenient, accessible, and affordable mode of transportation. The monopoly structure of Indian Railways has created a typical situation for it with the characteristics of the market of zero competition and hence Indian Railways can afford to ignore aspects such as quality of service, customer satisfaction, and product promotion. The Indian Railways is the lifeline of Indian economy and society, but it is far from healthy and satisfactory. Rather than to study the technical and engineering aspects of the railway the focus of this paper is to study and analyze the managerial aspects of services at the platforms of Indian Railways, specifically the East Coast Railways. There are many research scholars who have undertaken studies on various aspects of railway services, but platforms have failed to attract their attention. Railway platforms are an important part of the railway system. Waiting at a platform may range from 15 minutes to several hours (especially in the Indian context, where late running of trains is normal) to wait for a connecting train or due to late running of a train. There are various angles to this situation, but in this paper the premise is that passengers necessarily have to use platform services, and their agony may be mitigated by making their stay at the platforms more comfortable. Hence, a study has been attempted to measure the customer satisfaction in the context of railway platforms of Indian Railways, with special reference to platforms in the East Coast Railways.

RESEARCH OBJECTIVES

The research was aimed at finding out the following:

1. To identify the indicators of service quality of Indian Railway platforms that lead to customer satisfaction.
2. To measure the customer perception towards the quality of services of Indian Railway platforms.

RESEARCH METHODOLOGY

A survey instrument in the form of closed-ended questionnaire was developed for collecting the main data for the study. A five- point Likert scale ranging from "least satisfied" to "most satisfied" was used to measure user satisfaction level. A Likert scale was used because it allowed the researchers to quantify opinion-based items, and a scale with balanced keying (an equal number of positive and negative statements) could obviate the problem of acquiescence bias. At the initial stage of developing the research instruments, a series of discussions were carried out with the senior academicians in the field of business management employed in the institutions located in the region. Then the questionnaire was circulated among the respondents of the pilot study consisting of 60 samples (they are not included in the main study) to get their opinion on the relevant parameters to be incorporated in the questionnaire. This pilot study was conducted solely at the railway platform of Sambalpur among the regular visitors of this platform. After the questionnaire became fully ready the samples for the main study was initiated to be collected. Choosing the method of personal interview for data collection during the survey has enabled the interviewer not only to screen the eligibility of the respondents but also to assist the respondents when they find difficulty in understanding any of the questions in the questionnaire. The questionnaire contains question on 17 parameters of service quality of railway platforms. The universe in this case is defined as the entire population of the country and foreign nationals visiting India. Hence, a definite, statistically-sound sample was not feasible. Convenience sampling was used for the purpose of the survey, and a research sample was taken to measure customer perception. The survey was carried out on different days in the month of May/June 2012 at seven major railway platforms of East Coast Railways i.e. Balasore (N=46), Bargarh (N=50), Bhubaneswar (N=58), Berhampur (N=50), Bolangir (N=33), Jharsuguda (N=50), Sambalpur (N=50). A total of 337 passengers were contacted. This was simply a research sample and may not truly represent the entire user population; however, the test of significance has been done and shows that the sample size would not affect the results. The table in Annexure I and II shows the demographic profile of the sample.

RESEARCH HYPOTHESES

Based on the extant literature and the objectives of the study, the null hypotheses are framed. As service quality is expected to be different based on the platform in which it is going to be measured, hence the hypothesis is developed to measure the overall difference in the perception of travellers on various dimensions of service quality at different platforms of east-coast railways. The null and alternative hypotheses framed for the study are listed below:

Null Hypothesis: H0 = Significant differences do not exist in the perceptions regarding factors of service quality of railway platforms of east coast railways based on their location

Alternative Hypothesis: H1 = Significant differences exist in the perceptions regarding factors of service quality of railway platforms of east coast railways based on their location

Since most of the theoretical distributions in statistics like Binomial, Poisson, Beta, Gamma, t, F, *X2*, etc. do conform to Normal Distribution asymptotically, the present paper has used the Normal Test of Significance for large sample (Gupta. S. C.; 2009). However, for samples usually less than 30, the exact sample test statistics are applied. In the present study since the sample size is more than 30 for each of the platforms covered, the large sample test is done by using the standard normal variate test (i.e. Z Test). Calculations of descriptive statistics like mean values and standard deviations and testing of hypothesis are conducted using Microsoft Excel. The factor analysis is done with the help of Statistical Package for Social Sciences (SPSS) on the cross-sectional data comprising 17 parameters of service quality of railway platforms.

RESULTS AND DISCUSSIONS

The 17 item service quality instrument for the railway platforms prepared and administered in the present study helped to understand the perceived level of service delivery of the platforms basis the various factors. The mean scores of each variable in the instrument could theoretically range from 1 to 5. The mean scores are given in Table – I. As per the travellers' perceptions, the top three important factors contributing to their satisfaction are, "Clarity of announcement in the platform", "Accuracy of announcements in the platform" and "Frequency of announcements in the platform" holding the 1st (mean value = 3.4, score = 68.4), 2nd (mean value = 3.2, score = 64.2) and 3rd (mean value = 3.2, score = 64.2) rank in the race respectively. However, there are some other factors which do not score that much: "Security of luggage in the platform", "Quality of refreshments in the platform" and "Affordability of refreshments in the platform" with their individual mean values of 2.4 (score = 48.3), 2.5 (score = 50.0) and 2.5 (score = 50.3) respectively.

TABLE – 1: ANALYSIS THROUGH DESCRIPTIVE STATISTICS

Sl. No.	Description/Attributes		All Level (N=337)	Balasore (N=46)	Bargarh (N=50)	Bhubaneswar (N=58)	Berhampur (N=50)	Bolangir (N=33)	Jharsuguda (N=50)	Sambalpur (N=50)
		Score	56.1	46.8	44.1	60.6	58.5	56.6	61.0	64.0
A	**Basic Facilities**	**56.6**	**2.8**	**2.4**	**1.9**	**3.1**	**2.8**	**2.9**	**3.2**	**3.4**
1	Sufficiency of Seating Space in the Platform.	55.1	2.8	2.6	1.8	2.8	2.5	2.6	3.3	3.5
2	Lighting in the Platform.	60.8	3.0	2.3	2.2	3.5	3.0	3.2	3.3	3.7
3	Fans in the Platform.	54.2	2.7	2.3	1.7	3.0	2.9	2.9	3.2	3.0
4	Drinking Water and Sanitation in the Platform.	56.1	2.8	2.4	1.9	3.2	3.0	2.8	3.0	3.2
B	**Information System efficiency**	**63.4**	**3.2**	**2.5**	**2.5**	**3.4**	**3.5**	**3.0**	**3.7**	**3.4**
5	Clarity of Announcements in the Platform.	68.4	3.4	2.8	3.1	3.7	3.6	3.2	3.7	3.7
6	Accuracy of Announcements in the Platform.	64.2	3.2	2.5	2.8	3.3	3.8	3.0	3.5	3.4
7	Frequency of Announcements in the Platform.	64.2	3.2	2.3	2.6	3.5	3.6	2.8	3.8	3.5
8	Reservation Chart Display in the Platform.	56.7	2.8	2.6	1.6	3.1	2.9	2.9	3.6	3.2
C	**Refreshments**	**51.3**	**2.6**	**2.5**	**2.0**	**2.9**	**2.3**	**2.8**	**2.7**	**2.7**
9	Availability of Refreshments in the Platform.	53.8	2.7	2.3	1.9	3.2	2.7	3.0	3.0	2.7
10	Affordability of Refreshments in the Platform.	50.3	2.5	2.3	2.0	3.0	2.3	2.7	2.5	2.7
11	Quality of Refreshments in the Platform.	50.0	2.5	2.6	1.9	2.7	2.1	2.7	2.6	2.9
12	Quantity of Refreshments in the Platform.	50.9	2.5	2.6	2.2	2.8	2.2	2.7	2.7	2.7
D	**Security for and Behaviour Towards Passengers**	**53.9**	**2.7**	**2.0**	**2.3**	**2.8**	**3.0**	**2.7**	**2.7**	**3.2**
13	Security of Self in the Platform.	53.1	2.7	2.3	1.9	2.7	3.0	2.6	2.8	3.3
14	Security of Luggage in the Platform.	48.3	2.4	1.5	1.6	2.6	3.0	2.6	2.5	3.1
15	Behaviour of Porters in the Platform.	50.4	2.5	2.0	2.3	2.6	2.6	2.6	2.5	3.0
16	Behaviour of Railway Staff in the Platform.	55.4	2.8	2.2	2.6	2.9	2.7	2.6	2.8	3.5
17	Management of Parking in the Platform.	62.1	3.1	2.1	3.3	3.1	3.9	3.0	3.0	3.3
"_" Significantly Different@95% level from all level score										

FINDINGS

Analysis of data on the basis of different platforms on the given dimensions show that Balasore and Bargarh lacks in basic facilities as their service quality on these dimensions are below average, while platforms like Bhubaneswar, Jharsuguda and Sambalpur have scored above average on these dimensions. This problem area of the platforms in Balasore and Bargarh should be taken care of by the concerned authority and needful actions are hereby requested to be taken. Secondly, the Balasore and Bargarh stations are found to be significantly weak basis the functioning of information system inside their platforms. However, the Bhubaneswar, Berhampur, Jharsuguda and Sambalpur stations are significantly efficient on this ground. On the basis of various dimensions of assessing the refreshments available in the platforms, the results of the survey shows that the platforms at Balasore, Bargarh and Berhampur have significantly poor performance. The platforms at Bhubaneswar, Bolangir and Sambalpur are able to make a name for themselves by providing quality refreshments at their premises; as per the survey results. Another interesting result that has been discovered in the study is that the passengers consider the platforms at Bolangir and Bargarh railway stations as least secured while they perceive Sambalpur station as significantly more secured. Sambalpur railway station scored highest i.e. score = 64.0 on overall service quality while Bargarh scored lowest i.e. score = 44.1.

RESULTS OF FACTOR ANALYSIS

Previous research has demonstrated that service quality is not an one-dimensional concept but is made up of several "factors" and hence it is considered multi-dimensional even in the present study. For this reason, principal component factor analysis is applied to analyse the variables included in the questionnaire to measure their contribution to Passengers' satisfaction.

Mathematically, factor analysis is somewhat similar to multiple regression analysis, where each variable is expressed as a linear combination of underlying factors. It is an interdependence technique in which an entire set of interdependent relationships is examined. Factor analysis assumes that underlying dimensions or factors can be used to explain complex phenomena. In the present study, the factors influencing service quality of platforms of east-coast railways has been explored by asking the respondents to evaluate their relative capacity to satisfy them on each parameter on a semantic differential scale. These item evaluations may be analyzed to determine the factors underlying service quality of railway platforms. But, before going for the factor analysis it is always advisable to test the appropriateness of the factor model through the available data. Barlett's Test (BT) of Sphericity and Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy are two statistics on the SPSS output, which provides information whether the data set is appropriate for carrying factor analysis or not. Table 2 below presents the KMO and BT results of the data.

TABLE – 2: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.891
Bartlett's Test of Sphericity	Approx. Chi-Square	2.537
	Df	136
	Sig.	0.000

Barlett's test of sphericity can be used to test the null hypothesis that the variables are uncorrelated in the population; in other words, the population correlation matrix is an identity matrix. In an identity matrix, all the diagonal terms are 1, and all off-diagonal terms are 0.The test statistic for sphericity is based on a chi-square transformation of the determinant of the correlation matrix. A large value of the test statistic favours the rejection of the hypothesis. If the hypothesis cannot be rejected, then the appropriateness of factor analysis should be questioned. As the observed significance level in the present study is found to be 0.000 which is small enough to reject the hypothesis, the null hypothesis that the population correlation matrix is an identity matrix is rejected and we can conclude that the strength of the relationship among variables is strong. Hence, it is a good idea to proceed for factor analysis on the data.

Another useful statistic is the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. This index compares the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients. Small values of the KMO statistic indicate that the correlations between pairs of variables cannot be explained by other variables and the factor analysis may not be appropriate. Generally, a value greater than 0.5 is desirable. The KMO statistic in the present study is also large (>0.5), thus factor analysis would be considered as an appropriate technique for analyzing the correlation matrix.

Once, it is ascertained that factor analysis can be worked out on the present data set, the next step is to actually implement it and explore the factors underlying the service quality of railway platforms. The goal of factor analysis is to identify the not-directly-observable factors based on a set of observable or measurable indicators (Norusis 1993). Norusis (1993) describes the process of factor analysis in the following manner: The first step in factor analysis is to produce a correlation matrix for all variables. Variables that do not appear to be related to other variables can be identified from this matrix. The number of factors

necessary to represent the data and the method for calculating them must then be determined. Principal components analysis is one method of extracting factors. In principal components analysis, linear combinations of variables are formed. The first principal component is that which accounts for the largest amount of variance in the sample, the second principal component is that which accounts for the next largest amount of variance and is uncorrelated with the first and so on. At this step it is also necessary to ascertain how well the model fits the data. Coefficients (factor loadings), that relate variables to the identified factors, are calculated. In order for a parameter to belong to a given factor it is recommended that the loading value be not less than 0.40. The factor model is then rotated to transform the factors and make them more interpretable. The rotation phase transforms a factor matrix in which most factors are correlated with many variables into one in which each factor has non-zero loadings for only some of the variables. The most commonly used method for rotation is varimax rotation which seeks to minimise the number of variables that have high loadings on a factor thus permitting the factors to be differentiated from one another. Following rotation, scores for each factor can be computed for each case in a sample. These scores can then be used in further data analysis, such as analysis of variance, correlation and regression analysis. The results of the factor analysis of the service quality variables of railway platforms are shown in Table 3.

TABLE – 3: RESULTS OF FACTOR ANALYSIS: THE ROTATED COMPONENT MATRIX

			Components			
Dimensions/Attributes			1	2	3	4
1	**Basic Facilities**	Sufficiency of Seating Space in the Platform.	**0.722**	0.172	0.082	0.244
2		Lighting in the Platform.	**0.759**	0.205	0.176	0.201
3		Fans in the Platform.	**0.792**	0.202	0.135	0.097
4		Drinking Water and Sanitation in the Platform.	**0.653**	0.125	0.26	0.272
5	**Information System efficiency**	Clarity of Announcements in the Platform.	0.202	0.14	0.225	**0.791**
6		Accuracy of Announcements in the Platform.	0.205	0.026	0.213	**0.84**
7		Frequency of Announcements in the Platform.	0.203	0.184	0.178	**0.797**
8		Reservation Chart Display in the Platform.	0.268	0.4	0.112	**0.404**
9	**Refreshments**	Availability of Refreshments in the Platform.	0.361	**0.585**	0.194	0.152
10		Affordability of Refreshments in the Platform.	0.187	**0.777**	0.129	0.109
11		Quality of Refreshments in the Platform.	0.176	**0.771**	0.209	0.087
12		Quantity of Refreshments in the Platform.	0.058	**0.801**	0.102	0.077
13	**Security For and Behaviour Towards Passengers**	Security of Self in the Platform.	0.371	0.414	**0.484**	0.108
14		Security of Luggage in the Platform.	0.377	0.297	**0.621**	0.049
15		Behaviour of Porters in the Platform.	0.123	0.163	**0.734**	0.17
16		Behaviour of Railway Staff in the Platform.	0.116	0.171	**0.709**	0.171
17		Management of Parking in the Platform.	0.081	0.031	**0.718**	0.248

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Table 3 above provides the factorial structure of the behaviour of the variables in the sample. In the present sample, a forced four-factor model of service quality of railway platforms has explained 63.249% of the variance. Based on the factor loadings, the variables of service quality of railway platforms in the present study can be compressed to four important factors and on the basis of the nature of variables included in different factors, it can be designated as basic facilities, information system efficiency, refreshments and security for and behaviour towards passengers.

The first factor i.e. basic facilities explaining 39.363% of variance includes a total of four variables such as Sufficiency of Seating Space in the Platform, Lighting in the Platform, Fans in the Platform, Drinking Water and Sanitation in the Platform. This is probably because when first the individual brings himself to the railway platform a set of expectations about the arrangements of basic facilities exists within him. Therefore, the basic facilities inside the platforms which is simply a framework for meeting a set of expectations of someone or a group of consumers need for quality service has come up as the most vital factor in bringing satisfaction among them.

The second factor i.e. refreshments explaining 9.783% of variance includes variables like Availability of Refreshments in the Platform, Affordability of Refreshments in the Platform, Quality of Refreshments in the Platform, Quantity of Refreshments in the Platform. It is understandable as it is evident that every railway passenger whether travelling distant or nearby destinations waits in the platforms for catching the desired train and during that time period to satisfy hunger, quality refreshments are most needed else he will be frustrated.

The third factor i.e. Security For and Behaviour Towards Passengers explaining 7.577% of variance includes variables like Security of Self in the Platform, Security of Luggage in the Platform, Behaviour of Porters in the Platform, Behaviour of Railway Staff in the Platform, Management of Parking in the Platform Further, the fourth factor i.e. information system efficiency explaining 6.526% of variance includes another four variables which are Clarity of Announcements in the Platform, Accuracy of Announcements in the Platform, Frequency of Announcements in the Platform, Reservation Chart Display in the Platform.

Hence, to summarize the results of factor analysis, it can be said that on the passengers' place there are different degrees of priorities to the variables associated with their satisfaction towards the service quality of railway platforms which can be divided into four major categories based on the factors described by the analysis as; basic facilities, refreshments, security for and behaviour towards passengers and information system efficiency.

RECOMMENDATIONS/SUGGESTIONS AND CONCLUSION

What this article is shooting for is to bring a solid understanding of what passengers of east coast railways need in order to achieve satisfaction from the railway platforms of the zone and what the service provider (east-coast railways) can do to help them achieve that. The findings of the survey unveils a lot of "basic truths" about the passengers' perceptions that incorporates the principles of service quality of railway platforms. According to the consumers in order of preference, the four factors influencing service quality of railway platforms are basic facilities, refreshments, security for and behaviour towards passengers and information system efficiency. Since, when it comes to service quality railway platforms, finding out what service quality means to the passengers is critical for the railway policy to be successful, the management of the service provider is hereby suggested to take into account the above mentioned factors on priority basis in formulating policies. Secondly, the service provider should also track the effectiveness of these policies from time to time and the only way to know what customers want is to ask them. Hence, getting direct customer feedback is the only best known way for accomplishing this task. If the service provider have to allocate the budget and also make alteration in the expenditures for uplifting service quality of platforms, in that case it is recommended to first have a thorough understanding of what passengers value the most, and the least, to minimize any harm to their morale.

CONCLUSION

This research has helped identify the broad dimensions which are used by customers in evaluating the service quality of railway platforms. This study has identified the actual determinants of customer satisfaction with quality of service provided on railway platforms. In this respect, this paper suggests certain policy implications for Indian Railways. The proposed model of customer satisfaction may be used as a basis to plan efforts towards increasing customer satisfaction at the railway platforms of east coast railways by the service provider.

SCOPE FOR FURTHER RESEARCH

Finally, the present research work is an attempt to contribute to theoretically available literature while also proposing a tool for managers of railway platforms in east coast railways that can be used for monitoring and improvement of service quality from customers' perceptions. It is hoped that the availability of this instrument would stimulate further research focusing on service quality at other railway platforms as well and its impact on customer satisfaction.

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ANNEXURE

ANNEXURE – I: DEMOGRAPHIC PROFILE OF RESPONDENTS

Respondents' Characteristics	% of Respondents (Base : All Respondents = 337)
Gender	
Male	90% (302)
Female	10% (35)
Age	
< than 35 Years	64% (216)
> than 35 Years	36% (121)
Monthly Household Income (MHI)	
< than 20,000	54% (184)
> than 20,000	36% (123)
Education	
Graduates	56% (189)
Post Graduates	44% (148)

ANNEXURE – II: PLATFORM-WISE COVERAGE OF SAMPLE

Railway Platforms	% of Respondents (Base : All Respondents = 337)
Balasore	14% (46)
Bargarh	14% (50)
Bhubaneswar	17% (58)
Berhampur	15% (50)
Bolangir	10% (33)
Jharsuguda	15% (50)
Sambalpur	15% (50)

ANNEXURE – III: TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.692	39.363	39.363	6.692	39.363	39.363	2.861	16.832	16.832
2	1.663	9.783	49.146	1.663	9.783	49.146	2.849	16.756	33.588
3	1.288	7.577	56.723	1.288	7.577	56.723	2.548	14.989	48.578
4	1.109	6.526	63.249	1.109	6.526	63.249	2.494	14.671	63.249
5	0.853	5.017	68.266						
6	0.768	4.518	72.784						
7	0.661	3.891	76.675						
8	0.59	3.473	80.148						
9	0.525	3.088	83.236						
10	0.48	2.822	86.058						
11	0.439	2.585	88.643						
12	0.426	2.505	91.148						
13	0.345	2.032	93.18						
14	0.326	1.916	95.096						
15	0.319	1.877	96.972						
16	0.279	1.642	98.614						
17	0.236	1.386	100						

Extraction Method: Principal Component Analysis.

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