Passenger Service quality gap and computerization in Indian Railway: A live project study after railway budget 2016

Ambrish Sharma, PhD
Associate Professor
FMC – Mangalayatan University Aligarh

1. INTRODUCTION
Service industry entirely depends on customer satisfaction particularly in the time of highly competitive market but in case of Indian railway which has its monopoly as well as government owned and operated organization. This situation may be considered as a favorable from owners’ point of view but in this era of ICT or information explosion and fast growing service industry in India gives a highly challenging situation. This situation become more challenging here in India due multiparty democratic system as well as laziness in attitude of government employees, who do not want to any extra initiative or efforts. therefore in such kind of scenario a highly as well as ICT/computer technological based interface would help in closing the GAP in case of service delivery or may be an assurance to get Total Quality, every department within the organization must define and manage service quality. As an interface with global market service becomes a powerful competitive weapon, and indeed in some cases, the only form of differentiation. The challenge of any service operation is to bring together various facets of the business.

Although the tangible content of a service product may be largely invisible to the customer, his perception of service delivery is influenced disproportionately by the manner of his treatment at the point of transaction. It is widely believed that service is difficult to manage because it is intangible but many a service activity contains a considerable proportion of very tangible which are therefore capable of specification and measurable through various further decisions by the customers.

Keywords
ICT, GAP, RAC, ICT

2. LITERATURE REVIEW
Devi Prasad Maruvada and Raja Shekhar Bellamkonda The Effects of Individual Dimensions of Railway Service Quality: Findings from Indian Railway Passenger Services through Developing RAILQUAL about the integrated framework in context to the objective of identifying such gaps that would lead to Quality in Railway passenger services, through usage of quantitative and qualitative techniques. This reflect in the determination of railway service quality and development of RAILQUAL. And identified 36 attributes and further suggested 6 factors (reservation and ticketing, railway platform amenities, in train-service, employee service, punctuality, safety and security in the journey) from them to study the gap in service quality and has presented a model of individual dimension of Railway passenger service quality. That indicates that there is significant relationship between in-train service, Employee service, Train punctuality, platform amenities, Reservation and Ticketing and safety and security are having significant positive influence on overall passenger service quality. Railway feels that the passenger is pleased with if a few new trains are announced in railway budget. The platforms at major stations are arguably among the dirtiest in the world. Due to lack proper signage, seating facilities and communication mechanisms. Lifts and escalators are non-existent in most stations though the Railways are the most preferred option for long distance travel in India. More personnel need to be deployed not just to manage crowds but also to help passengers with precise information. An appropriate communication between officials and passengers itself could streamline passenger flow and facilitate better patronage. But these are possible only if policies and priorities are set with the passenger in focus. A public utility like the Railways has to be judged not merely on the bottom line, but on the quality of service it provides.

Amit Singla 2015, ‘The effect of perceived service quality on customer satisfaction in Indian Railway: To know about the perception of Indian people regarding the services provided by Indian Railways and to understand what factors lead to customer satisfaction and loyalty in the Indian Railways. In terms of revenue of Indian Railways. To understand and conceptualize the future marketing strategies of services in Indian Railways and The this research was intended to the various service quality factors and their impact on customer satisfaction as well as loyalty towards Indian Railways.

MINISTRY OF RAILWAYS (RAILWAY BOARD) NINETEENTH REPORT fifteenth Lok sabha April 2013, PASSENGER AMENITIES AND PASSENGER SAFETY IN INDIAN RAILWAYS Security System over Indian Railways Presently, the security of Indian Railways is looked after by the Government Railway Police, District
Police and Railway Protection Force. In the beginning, the role and responsibility of RPF was confined to the security of railway property. By an amendment in the RPF Act in 2003, the role and responsibilities of RPF were extended to the security of passengers, passenger area and matters connected therewith. Presently, the role and responsibilities of the 3 agencies are as under: (i) District Police: Security of tracks and bridges and law and order problems beyond outer signals of railway stations. (ii) Government Railway Police (GRP): Prevention and detection of passenger related crime and maintenance of law and order in the station premises and in trains. 50% of the cost of Government Railway Police is borne by the Railways and the balance is paid by the State Government concerned. (iii) Railway Protection Force: Security of railway property, passengers, passenger area and matters connected therewith.[4].

Fatma Pakdil and Feride Bahar Türkiye 2014, Improving service quality in highway passenger transportation: a case study using quality function deployment. The analysis reveals that the passengers’ most important expectations are employees' empathetic approach toward customers, technical specifications of buses, error-free services, and competent employees. Additionally, the most important technical requirements are employee-oriented technical requirements, technical specifications of buses, and error-free services in highway passenger transportation. The analysis in this study shows the factors that are the most important in satisfying consumer voice: “employees’ empathetic approach toward customers”, “technical specifications of buses”, “error-free services”, and “competent employees”. Additionally, the most important technical Improving service quality in highway passenger transportation: a case study using quality function deployment requirements are “employee-oriented technical requirements”, “technical specifications of buses”, and “error-free services”. [5]

M. Devi and Dr. B. Raja Shekhar2010, Impact of Service Quality Management (SQM) Practices on Indian Railways - A Study of South Central Railways, on the four important objectives listed as What is the passenger satisfaction factor in railways? What does the item of service quality that lead to passenger satisfaction? How to deliver the item of service quality that lead to passenger satisfaction? What is the extent of gap between passengers’ expectations and perceptions? And the findings were: Improving the quality of service is one of the ways to improve the competitiveness of Railways Passenger Business. The results point towards the need for South Central Railway to formulate management policies such as training of staff so that Staff will be more responsive to customers’ needs. Bureaucracy has to be reduced or eliminated as it’s a government department with less dynamism. Hence the human touch is more required as we can see in Airlines services which we are missing in Indian Railway Passenger Services. We will be able to know the inside process to set effective and efficient improvement in service which leads ultimately to passengers satisfaction.[1].

Citizens’ Charter on Passenger Services of Indian Railways: (Citizen charter For suggestions, please write to: Shri A. Madhukumar Reddy, Executive Director, Passenger Marketing Room No. 472, Rail Bhavan, New Delhi-110 001. e-mail: edpm@rb.railnet.gov.in) Preamble: This Charter is a commitment of the Indian Railway Administration to: •Provide safe and dependable train services, Set notified standards for various services, wherever possible. Ensure adequate passenger amenities in trains and at railway stations; Provide courteous and efficient counter services and Set up a responsive and Effective Grievance Redressal Machinery, at various levels and time-bound resolution of complaints and grievances as far as possible. And there are some important provisions in this citizen charter such as: Reservations, Booking, Refunds, Special Trains, Enquiry and Information, Catering, Passenger Amenities Public Grievances, Theft of Luggage and Co-operation from Passengers All the above services and commitments will be honored without the citizen having to pay any bribe.[9]

e services available in railway

IRCTC Online Passenger Reservation System [https://www.services.irctc.co.in/ IRCTC's Online Passenger Reservation System provides booking facility of Railway tickets online and offers other services like checking reservation status, train schedules, train routes, availability of tickets and cancellation.

IRCTC E-Catering ecatering.irctc.co.in/
Train Berth Availability - Indian Railways

Mobile Ticketing Services ... Trains/Fare/Accommodation
Availability Between Stations.

FOIS- Indian Railways Online Freight Trains Reporting [https://www.fois.indianrail.gov.in/ E-Services Consignment Tracking (FNR Enquiry) Is Available Through SMS (57886), IR Portal www.indianrailways.gov.in]

Indian Railway Passenger reservation Enquiry www.indianrail.gov.in/ Plan you trip on Indian Railways Trains, Check Availability, Seats Availability, Reservation, Enquiry, PNR, Passenger Status, Travel.

IRCTC E-Wheelchair Facility FAQs - Indian Railways

Newswire.co.in/irctc-e-wheelchair-facility.[9]

Hongxiu Li, Reima Suomi 2009 A Proposed Scale for Measuring E-service Quality , International, With rapid growth of the Internet and the globalization of market, companies accepted and adopted the new information and communication technology to offer e-services to their customers. This paper addresses e-service quality issue in the electronic marketplace. The purpose of this paper is to extend what are the main service quality dimensions in the realm of e-service. The paper explores e-service quality dimensions based on a review of the development of e-service quality scales and the SERVQUAL [10]

Sinha, Gupta and Sinha, 2013, Ticketing System of Indian Railways through SMS and Swapping Machine e-ticketing, becomes much more straightforward to provide multi-modal and multi-operator tickets that can be used for travel on any element of a public transport network. However, it is in places where public transport is less well integrated that this aspect of electronic ticketing could offer the greatest benefit. Electronic ticketing can assist authority in improving clearing mechanisms by providing detailed information on consumer’s mobility behavior. If a check-in/check-out procedure is implemented, it becomes easy to distribute revenues according to the actual travel pattern. A direct impact is a saving on the cost of surveys which are periodically carried out to estimate how the different public transport networks are used. Through mining the e-ticketing-related data, it becomes possible to get the network performance statistics. Mining on the public transport data collected provides valuable information on bus, rail, cards usage and travel patterns, which then could be utilized for policy, planning and
service quality is measured primarily from the customer’s perspective since customers are the sole judges of service quality (Zeithaml et al., 1990, Oma et al., 2012). However, gaps were still not filled such as un-noticed as well as un-authorised passenger traveling in reserved coaches. Even the citizen charter has nothing to address on that issue. With the use of e-services railway tries to close the gap but still the issue of un-noticed as well as un-authorised passenger traveling in reserved coaches was still waiting for such e service to reduce the gap. Training of staff to deal with responsive and empathetic way and bureaucracy was the major challenge. A more objective measurement provided by the firm can be useful in improving comprehensive service quality. Therefore, the combination of both types of service quality measures could provide a useful and reliable measurement tool.[6]

In the literature, there are particular studies employing both viewpoints to assessing service quality in the passenger transportation industry (Tyrinopoulos and Afidopoulou, 2008, Eboli and Marzulla, 2011, Nathanail, 2008). Quality Function Deployment (QFD) is a methodology employing both customers’ and service. Rapid growth of the Internet and the globalization of market, companies accepted and adopted the new information and communication technology to offer e-services to their customers(Hongxiu Li, Reima Suomi 2009)

This literature review also provided a clear cut understanding that computerization and use of ICT reduces the gap in terms of quality and service delivery where ever these applied in railway. Through mining of the e-ticketing-related data, it becomes possible to get the network performance statistics. Mining on the public transport data collected provides valuable information on bus, rail, cards usage and travel patterns, which then could be utilized for policy, planning and marketing usages. This information will be more complete in a check-in/check-out system to lead higher satisfaction to passenger.

3. AIMS AND OBJECTIVES
The study aims to identify gaps which the Indian Railway has in passengers’ satisfaction in train. Hence the basic objective of this study is to identify the solutions (e-services) to determining the service quality of the Indian Railways in train service that leads to the passenger satisfaction.

4. RESEARCH DESIGN
This research is analytical in nature and personal experience and operation method applied to analyze the research objectives with the existing GAP model. The literature review clearly indicates that many of Indian Railways services have verity of gaps which are important for customer satisfaction. Moreover, a study on the service quality during journey in train and basic services has been ignored therefore researchers tries to provide appropriate problems to address through service quality GAP model. Hence, an attempt is made to study the close the gap through ICT and computerization to match the customer perception of quality and the right efforts of Indian Railways in train service.

Dimensions to measure service quality; tangibles, reliability, responsiveness, assurance, and empathy as given in Table 1.

5. TABLE 1. THE SERVQUAL DIMENSIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>Physical facilities, equipment, and appearance of the personnel.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide prompt service.</td>
</tr>
<tr>
<td>Assurance</td>
<td>Knowledge and courtesy of employees and their ability to inspire trust and confidence</td>
</tr>
<tr>
<td>Empathy</td>
<td>Caring, individualized attention the firm provides its customers[7].</td>
</tr>
</tbody>
</table>

5.1. Experience and Observations of Respondents After Budgetary Announcements Year 2016
To understand and evaluate the announcements made in railway budget 2016 and it’s translation of by general population as well as media houses researcher had an opportunity to travel from Mathura to Haridwar by Utkal express in the month of March 2016. Major observations experienced by researcher were as follow:

A birth was booked on line by passenger using irctc.co.in but it was RAC status at the time of booking.

With ICT enable technology these updates were also available at on his mobile phone which was registered with the website.

The status of RAC converted into confirm just before 8 hours of scheduled departure time i.e. 11:55 AM from Mathura Jn.

Passenger reached Mathura junction at 11:45 AM to board into the train and Shaw the bulletin board and found out that train was running as schedule.

He reached the designated place on the platform where the location of coach was displayed.

But train reached 10 minutes delay while announcer was continued to announce that train was running on right time.

There were 10-15 such passengers who were not having an authorised ticket.

TTEvisitedthree time and inspacted for ticket in that coach to check the authorized passengers as well as unauthorised during the journey from Mathura to Haridwar but all the time he did on random basis

Fortunately/unfortunately none of TTE asked the respondent for his ticket or identity.

Train reached the destination by two hours delay from schedule time.

Analysis through Gap model:
Fig: GAP model analysis in context to Indian railway

FINDINGS:
Customer gap: a) Expected service and perceived service delivery was satisfactory to some extent till where the commuter and ICT were involved but at the part of employee the satisfaction gap was wider. The respondent/researcher felt that un-noticed as well as un-identified person in reserved coach may be terrorist who have sufficient time

Delay in arrival without any such information and a long delay of two hours at destination and there was no such information about the reason and even no scope of feedback.

Hygiene in the train is second important factor came under the satisfaction level of the customer.

Gap 1 Management’s perception about passenger also have a big gap as there is no scope of restricting the unauthorised passenger in their citizen charter.

Gap 2- Transformation of management perception in terms employees responsiveness and commitment toward customer as well as Indian railway for providing safe and secure journey.

Gap 3. Service delivery part also need to address since none of the railway employee was interacted with the respondent/researcher during this particular journey though technological interaction was satisfactory to some extent.

Gap 4- over promise through mass media extended the actual promise to customer but same was not properly communicated to employee who would be going to deliver the service.

Suggestion and recommendations:
Focus on technological service quality factors like website, mobile application and computer based passenger authentication.

Hygiene and Safety- Security, which are considered paramount factors as far as concerned to the in train passengers.

Since the hygiene are important factors to determine the satisfaction of the customers, the Railways are to pay more attention to provide such services and to educate passengers in the same direction.

On basis of this gap model railway need to design satisfaction model or developed modified one.

To ensure better and qualified services and overall satisfaction to the Passengers during the train journey needs a proper communication as it was happed before journey.

6. REFERENCES
[9] Citizen charter For suggestions, please write to: Shri A. Madhukumar Reddy, Executive Director, Passenger Marketing Room No. 472, Rail Bhavan, New Delhi-110 001. e-mail: edpm@rb.railnet.gov.in