CHAPTER II
REVIEW OF LITERATURE

This chapter is classified into two sections. The first draws a detailed theoretical discussion on consumer satisfaction. The second section of the chapter contains the literature reviews collected for the effective conduct of the study.

SECTION I
THEORETICAL OVERVIEW ON THE CONCEPT OF CONSUMER SATISFACTION

This section of the study presents the meaning on consumer satisfaction, its definition, reason by experts for studying consumer satisfaction, importance for studying consumer satisfaction, factors affecting consumer satisfaction and various theories of customer satisfaction.

2.1 Introduction

Modern management science’s philosophy considers customer satisfaction as a baseline standard of performance and a possible standard of excellence for any business organization. To reinforce customer orientation on a day-to-day basis, a growing number of companies choose customer satisfaction as their main performance indicator.

2.1.1 Meaning of Consumer Satisfaction

Customer satisfaction is a measure of how products and services perform in relation to asset of customer requirements. The goal for every company should be to make its customers satisfied. Satisfied customers will come again and might stay as customers for a longer period of time. It is important for the company to actually care and appreciate the customer. It is clear that if the company can make the customer satisfied, the customer will come back again and the customers might also tell to some of their friends about the goods and services they got. So through satisfied customers it is possible to save in marketing expenses.

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2.1.2 Definition of Customer Satisfaction

Satisfaction can be determined by subjective (users’ needs, emotional state) or objective factors (the characteristics of the product or service). “A person’s feelings of pleasure of disappointment that result from comparing a product’s perceived performance (or outcome) to expectations” – Philip Kotler.

Philip Kotler has also mentioned that in an increasingly competitive environment, companies must be customer oriented and customer satisfaction represents a modern approach for quality in business life and serves the development of a truly customer-oriented culture and management.

Oliver (1981)\(^1\) defines customer satisfaction as a customer’s emotional response to the use of a product or service. Anton (1996)\(^2\) offers more elaboration: “customer satisfaction as a state of mind in which the customer’s needs, wants and expectations throughout the product or service life have been met or exceeded, resulting in subsequent repurchase and loyalty”.

Satisfaction has been broadly defined by Vavra, T.G. (1997)\(^3\) as a satisfactory post-purchase experience with a product or service given an existing purchase expectation. Schiffman and Kanuk (2004)\(^4\) defines customer satisfaction as “The individual’s perception of the performance of the product or service in relation to his or her expectations”.

2.1.3 Reasons for Customer Satisfaction

- Customer satisfaction constitutes the most reliable market information this way, a business organization is able to evaluate its

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current position against competition and accordingly design its future plans.

- A large number of customer avoid expressing their complaints or their dissatisfaction from the product of service provided, either due to a particular attitude or because there are not sure that the company will perform any corrective action.

- Customer satisfaction measurement is able to identify potential market opportunities.

- The main principles of continuous improvement require the development of a specific customer satisfaction measurement process this way, and improvement action is based on standards that take into account customer expectations and needs.

- Customer satisfaction measurement may help business organization to understand customer behavior and particularly to identify and analysis of customer expectation needs and desires.

- The applications of a customer satisfaction measurement program may reveal potential differences in the service quality perception between the customer and the management of business organization.

2.1.4 Importance of Customer Satisfaction

- Customer satisfaction is the main drive of loyalty and repurchases intentions.

- Customer satisfaction is a lead indicator that predicts future customer behavior.

- It increases customer lifetime value.

- It reduces negative word of mouth.

- It’s cheaper to retain customers than acquire new ones.

2.1.5 Important Factors that Affect Customer Satisfaction:

- Department wise capability of the supplier.
• Technological and engineering or re-engineering aspects of products and services.
• Type and quality of response provided by the supplier.
• Supplier’s capability to commit on deadlines and how efficiently they are met.
• Customer service provided by the supplier.
• Complaint management.
• Cost, quality, performance and efficiency of the product.
• Supplier’s personal facets like etiquettes and friendliness.
• Supplier’s ability to manage whole customer life cycle.

The above factors could be widely classified under two categories i.e. suppliers behavior and performance of product and services.

2.1.6 Various Theories of Customer Satisfaction

Consistency theories suggest that when the expectations and the actual product performance do not match the consumer will feel some degree of tension. In order to relieve this tension the consumer will make adjustments either in expectations or in the perceptions of the product’s actual performance.

(i) Assimilation Theory

Assimilation theory is based on Festinger’s (1957) dissonance theory. Dissonance theory posits that consumers make some kind of cognitive comparison between expectations about the product and the perceived product performance. This view of the consumer post-usage evaluation was introduced into the satisfaction literature in the form of assimilation theory. According to Anderson, consumers seek to avoid dissonance by adjusting perceptions about a given product to bring it more in line with expectations. Consumers can also reduce the tension resulting from a discrepancy between expectations and product performance either by distorting expectations so that they coincide
with perceived product performance or by raising the level of satisfaction by minimizing the relative importance of the disconfirmation experienced.

(ii) Contrast Theory

According to the contrast theory, any discrepancy of experience from expectations will be exaggerated in the direction of discrepancy. If the firm raises expectations in his advertising, and then a customer’s experience is only slightly less than that promised, the product/service would be rejected as totally unsatisfactory. Conversely, under-promising in advertising and over-delivering will cause positive disconfirmation also to be exaggerated.

(iii) Assimilation—Contrast Theory

Assimilation—contrast theory was introduced by Anderson (1973) in the context of post-exposure product performance based on Sherif and Hovland’s (1961) discussion of assimilation and contrast effect. Assimilation—contrast theory suggests that if performance is within a customer’s latitude (range) of acceptance, even though it may fall short of expectation, the discrepancy will be disregarded—assimilation will operate and the performance will be deemed as acceptable. If performance falls within the latitude of rejection, contrast will prevail and the difference will be exaggerated, the produce / service deemed unacceptable consumers will tend to assimilate or adjust differences in perceptions about product performance to bring it in line with prior expectations but only if the discrepancy is relatively small.

(iv). Adaptation-Level Theory

Adaptation-level theory is another theory, which is consistent with expectation and disconfirmation effects on satisfaction. This theory was originated by Helson in 1964 and applied to customer satisfaction by Oliver. Helson (1964) simply put his theory as follow. “it posits that one perceives stimuli only in relation to an adapted standard. The standard is a function of perceptions of the stimulus itself, the context, and psychological and physiological characteristics of the organism. Once created, the ‘adaptation
level” serves to sustain subsequent evaluations in that positive and negative deviations will remain in the general vicinity of one’s original position.

2.1.7 Models of Customer Satisfaction

Customer satisfaction models can be classified as macro-models and micro-models. Macro-models and micro models are a classification under which different types of models reside. Macro-models combine what the customer perceives as value with quality and loyalty. Micro-models study the fundamentals that make up what is considered to be customer satisfaction. Micro-models look more directly at different elements of customer satisfaction.

EXHIBIT 2.1
SEVEN MICRO-MODELS OF CUSTOMER SATISFACTION

![Diagram showing the seven micro-models of customer satisfaction]

Business management and marketing are concerned with ways of satisfying and retaining customers for the purpose of generating profits, improving companies’ competitiveness and securing market share. Some of the major themes in the business management domain include studies of customer relationship marketing, which analyses how customer satisfaction relates to competitiveness and profits, methods for measuring customer satisfaction.

A growing body of empirical work supports the fundamental logic that customer satisfaction should positively influence customer retention. It is
argued that by increasing retention, customer satisfaction secures future revenues and reduces the cost of future customer transactions, such as ones associated with communications, sales, and service.

SECTION II
REVIEW OF LITERATURE

2.2 Introduction

Public transportation systems especially railway's provide the most efficient means for moving large number of people, especially in density populated rural and urban centers in a vast country like India. For this reason, providing services characterized by high levels of quality is very important in order to customize the users of the services and attract new users. Key literature review on the passengers’ experiences and their satisfaction towards railway services offered in India are briefly discussed in this chapter. A detailed review of literature has been made to find out the research gap and to identify the relevant researchable issues for the study. It is essential for a research scholar review the related literature study to have clear knowledge about the subject and understand the research gap in order to draw the scope for the study.

2.2.1 Contribution of Indian Railway Services

Amit Dinakar et.al. (2001)\(^5\) mention that the role played by the Indian Railways in the country’s socio-political development is indisputable. Apart from its stated duty of transporting men and goods across the length and breadth of the country, it has played a stellar role in times of natural and man-made disasters. The role of the railways becomes even more crucial to the development of the country as India is in the 21st century and the pace of the growth of the economy accelerates. The need for an efficient transportation sector would become more crucial with every passing year. Thus, it is necessary for the railways to remain competitive, in terms of both cost and

\(^5\) Amit Dinakar, Dipayan Chakraborty, Prashant Yadav, Rajesh Kumar and Sudip Sharma (2001), Restructuring of Indian Railways, Submitted in partial fulfillment of the requirements of the course Infrastructure Development and Financing, Indian Institute of Management, Ahmedabad, IDF Section A, Group 8, 24th August
quality of services, to ensure an efficiently functioning transport sector in the country.

According to Ankit Gupta and Vidya Bhat (2007)\(^6\) says that Indian Railways (IR) has been the prime mover of the nation and has the distinction of being the largest railway system in Asia and the second largest railway system in the World under single management. Indian Railways (IR) had faced financial difficulties in the 1990s, which hampered its growth and there were concerns on its ability to provide competitive transport services in the future. This was in large part due to the tradition of seeing railways as an essential public service, the usage of which cannot be denied even to those unable to pay. Under a tariff regime, where freight services continually subsidized passenger services and with Indian Railways (IR) losing traffic to the roads steadily, a financial crisis always seemed imminent within the Railways. However, after being written off as a financially unviable concern by industry watchers and nonchalant soothsayers, Indian Railways (IR) has staged a dramatic turnaround in recent years. The Railway's renaissance has been engineered by simple entrepreneurial practices, which have evoked the admiration of internationally renowned institutions and companies alike. In a marked departure from its legacy, the focus on capacity utilization, reduction in unit costs, and improvement quality of service has yielded remarkable results. The Railways had achieved the declared target of ₹20,000 Crores surplus revenue in the current financial year 2006-2007.

According to Anand K Sharma and Mathew J Manimala (2007)\(^7\) turnarounds are like exciting thrillers which describe dramatic recovery of declining organizations. Since such recoveries have great relevance for the

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\(^7\) Anand K Sharma and Mathew J Manimala (2007), Professor in Railway Finance at the Indian Institute of Management Bangalore, India. He can be contacted at email anandks@imb.ernet.in, Professor of Organization Behaviour at the Indian Institute of Management Bangalore, India. He can be contacted at email manimala@imb.ernet.in, his research paper was presented at the International Workshop on Innovation and Entrepreneurship held at Cankaya University, Ankara, Turkey on November, Pp. 1-2.
economic development particularly of developing countries facing resource scarcity, researchers with increasing interest have enriched the turnaround literature, especially in the last four decades. Research has highlighted many facets of turnaround. These include turnaround actions, strategies, types, elements, stages etc. Though the research covers largely the private sector entities, but effort, though little, is not non-existent for the public sector. This research paper examined a large complex departmental and commercial organization of the Government of India and its much-talked about turnaround in the theoretical perspective of stage theory. The paper not only fills up the gap of research in public sector but also uses the established stage theory model to answer the question of sustainability of the Indian Railways (IR) turnaround. The analysis goes back to the theoretical propositions which are by and large supported by the analysis of the turnaround of the Indian Railways (IR).

Raghuram and Rachna Gangwar (2009) mention that the age of Indian Railways (IR) is more than 150 years, which is one among the largest and oldest systems in the world, fondly called by people as the ‘Lifeline of the Nation’. With an extensive network spread across the country, Indian Railways plays a key role in the social and economic development of India.

Musacchio (2009) comments that since rival of Indian Railways (IR) revenue status, the passenger train service is one of the largest service providers in the world. It moves 20 million passengers per day. The turnaround of the Indian Railways (IR) has largely been due to volume of its freight services. Hence, to sustain its current level of growth, it needs to focus on the other services that it offers like - passenger travel and other earnings from parcel, catering etc. The study, focus on the steps that have been taken and need to be implemented to increase its volume in passenger traffic.

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Railways owned a total route length of 64,000 kilometers, 2,16,717 wagons, 39,263 coaches, 7,739 locomotives and runs about a total of 12,000 passenger trains and 7,000 freight trains daily. It carries nearly 23 million passengers every day and transports over 2.65 million tonnes of freight daily. The headquarters of the Indian railways are in New Delhi. Indian Railways (IR) is controlled by the Government of India through the Ministry of Railways. At present, there are 16 zones and 68 divisions in the Indian Railways (IR). Indian Railways has identified model stations for the provision of upgraded passenger amenities. Some of the stations have been identified for provision of certain ‘touch and feel items’ to transform them into modern stations in order to bring about visible improvements at stations.

According to Department of Economic Affairs report on the railways sector in India (2009)\textsuperscript{10} railway’s operations are characterized by mixed traffic – both passenger and freight trains share the same track and infrastructure. Passenger trains constitute nearly 70 per cent of the trains to run but contribute to less than 35 per cent of the revenue to be earned, while freight trains constituting only 30 per cent of the trains and make up 65 per cent of the revenue. It is against this challenging backdrop the real significance of the turn-around achieved by Indian Railway (IR) has to be properly focused and aimed to enhance revenue earning mechanisms.

Vishnuvarthan S. and Selvaraj A. (2012)\textsuperscript{11} says that the Indian railway passenger services face long term competitive threats from airlines, luxury buses, personalised transport and improved public transport. Low cost airlines are giving stiff competition to upper class segments of the railway passenger service. The author mentioned that there are competitions from various modes of transport, the railways have its own unique features and

\textsuperscript{10} Position paper on the railways sector in India (2009), Department of Economic Affairs, Ministry of Finance, Government of India, October.
\textsuperscript{11} Vishnuvarthan S. and Dr. A. Selvaraj (2012), Railway Passengers’ Satisfaction: A Study In Salem Division of Southern Railway, International Journal of Advanced Research in Management and Social Sciences ISSN: 2278-6236, December.
provide more services to the passengers. The authors also suggest that in order to compete with other modes of transport, it is inevitable for railways to accelerate the growth of passengers’ origination. This can be done by providing more quality services to them. They also highlight the fact that as per the opinion of the passengers towards the services provided by the Indian Railways (IR) differs according to their socio-economic characteristics. Thus, it is essential for the Railway Authorities to know about the opinion of the passengers regarding the services offered to them in order to make future policies and provisions.

2.2.2 Passenger’s Experience and Satisfaction towards Indian Railway (IR) Services

A transit service is characterized by a series of service factors concerning different aspects such as service programming, reliability, comfort, information, personnel, and so on. Therefore, transit quality depends on the quality levels of all the factors describing a transit service. Customer satisfaction is one of the key determinants to measure the quality of a service. Thus, this section of the study draws a detailed discussion of related reviews on the topic passenger experiences and satisfaction towards Indian railway services.

Rust and Oliver (1994)\(^2\) define satisfaction as the “customer fulfillment response,” which is an evaluation as well as an emotion-based response to a service. This paper is an attempt to put forth the role of service quality in affects customer satisfaction in the context of railway services, with special reference to platforms in the North Central Zone of Indian Railways (IR).

Rust et al. (1995)\textsuperscript{13} in his extended research work proposed a "Return on Quality (ROQ)" approach to quality improvement by modeling the relationship between service quality improvement efforts and profitability. Rust et al developed a ‘chain of effects’ model to link improvement effort to improvement in service quality, increased perceived quality, and customer satisfaction. The study concludes that increased customer satisfaction, in turn, leads to higher levels of customer retention resulting in positive impact on revenue and profit.

Sonne (1999)\textsuperscript{14} in his study elaborated on customer satisfaction from consultant services identified various factors including perceived competence of the consultant and the attitude of consultants toward the customer during the service production process. Another study by Gleave, S. D., (2000)\textsuperscript{15} focused on railway passenger perception on service quality. The study was carried between December 1999 to June 2000, by the organization named Steer Davies Gleave of London. The report was prepared for Shadow Strategic Rail Authority to study the importance of rail passengers into improvement of the range and quality of facilities and service on stations and in trains.

Kelley and Storey (2000)\textsuperscript{16} mention that changing customer preferences, improved competitive offerings, and emergence of new technologies often drive firms to introduce new services and improve existing service offerings as in the case of railways: the on-line ticket booking, enquiry, passenger status checkup etc. The authors’ suggest that new service offerings that are timely and responsive to user needs which are also developed to remain competitive.


\textsuperscript{14} Sonne, A.M. (1999), Determinants of customer satisfaction with professional services: A study of consultant services, Fiskerforsknings http://www.fiskerforsknings.no/hofma/publikasjoner/konomisk_fiskeriforsking/konomisk_fiskeriforsking_1999_02/determinants_of_customer_satisfaction_with_professional_servic es_a_study_of_consultants_services

\textsuperscript{15} Gleave S. D (2000), Rail Passenger Quality of Service Valuation, London

Soteriou and Chase (2000)\textsuperscript{17} suggested a methodology to guide improvements in service while controlling for costs. They adopted robust optimization which considers uncertainty resulting from measurement errors and/or noisy information and demonstrated the approach through an application in a large health care setting.

In another study Clare and Peter (2005)\textsuperscript{18} developed an analytical hierarchy process for service quality (AHP-SQ) to help managers prioritize service improvements to enhance competitiveness while balancing firm resources. The research follows in the spirit of the hitherto approaches in maximizing the customer value of service enhancements subject to a cost constraint.

In an empirical research work Tandon (2006)\textsuperscript{19} observed that improvements have been effected by Indian Railways (IR) to minimize ticket dispensing time through modernized passenger reservation systems using computers and the Internet at a large number of stations. The study highlights that the passengers also want efficiency, effectiveness, and politeness in service.

Sharma (2006)\textsuperscript{20} asserts that railway enquiry counters play a pivotal role in customer satisfaction, but railway enquiry service is far from satisfactory in India TCRP Report 100 identifies that following elements at railway stations for determining quality: space per passenger (crowding), facilities for disabled person (ramps etc.), facilities for evacuation, security (including presence of low enforcement personnel, video cameras, and emergency call boxes), visibility, lighting, and clarity of station layout and way-finding.

\textsuperscript{18} Clare, C. C., I. Peter (2005), \textit{A strategic service quality approach using analytic hierarchy process}, Managing Service Quality, Volume No. 15, Issue No 3, PP. 278-289.
\textsuperscript{19} Tandon R.K (2006), \textit{The Art and Science of Customer Care}, EDTT (F)/Railway Board.
Eboli and Mazzulla (2007)\textsuperscript{21} 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 by stops. The report identifies the following elements at bus stations for efficient service: shelter, waiting rooms and seating, doorways, stairways, escalators, signage and information displays, public address systems, and passenger amenities (including shelters, benches, vending machines, trash receptacles, lighting, phone booths, art, and landscaping).

Fu L. and Xin, Y. (2007)\textsuperscript{22} study focused on measuring service quality attributes affecting customer satisfaction for bus transit. The study measures the relationship between global customer satisfaction and service attributes of public transport especially of bus transit for University of Calabria student to reach the campus from the urban area of Cosenza of Southern Italy. A study model proposed in this research may useful for future researchers’ to analyze the correlation between service quality attributes and identify the more convenient attributes for improving the supplies in service.

Power J. D. and Associates Reports (2007)\textsuperscript{23} aimed to measure customer satisfaction towards transportation companies across seven factors: transportation of belongings, loading service, unloading service, optional coverage, estimate process, packing service, and insurance/damage claims. The authors’ emphasized that the quality of basic facilities and other supporting facilities were used as criteria for satisfaction.

\textsuperscript{23} Power J. D. and Associates Reports (2007), Global Van Lines, Mayflower Transit and Two Men and a Truck rank highest in customer satisfaction with full-service moving companies.
Agrawal (2008)\textsuperscript{24} identified employee behavior as the most important determinant of customers’ (passengers) satisfaction with Indian Railway (IR) services. The author defined five categories of measures wholly or partially reflects the passenger’s point-of-view in transit services which were availability of transit service, service monitoring, travel time, safety and security, and maintenance and construction activity on passenger trips. The author emphasizes aspects such as reliability, frequency, travel time and fare level comfort and cleanliness network coverage /distance to stop and safety issues were important factors in customer evaluations of public transport service quality.

Bangladesh Railway (2008)\textsuperscript{25} reports regarding the Khulna station of selected route had mentioned that total of 310157 passengers were traveled from July 2007 to May 2008 in Bangladesh and the number is constantly increasing. This study explores a relation between railway service quality attributes and customer satisfaction based on passenger perception. A model reported developed in this study which described the relationship between overall satisfaction of service and the service attributed in different circumstances of passenger perspectives. This report primarily presented the service quality attributes enlisted through literature review and interviewing the passenger and experts. Followed by service attributes which is determined by using factor analysis. This satisfaction model used in this report on overall satisfaction of the railway service well depicted about passengers feel. The results of this study can be used to understand passengers’ satisfaction towards the current service situation and the reports of Bangladesh railway services provide guidelines for further service assessment, betterment and improvement.

\textsuperscript{25} Bangladesh Railway (BR) (2008). \textit{Log Book of Passengers and Train Schedule}, Khulna Zone, Khulna, Bangladesh
Michale et al. (2008) research study measured the factors influencing customer satisfaction and behavioral intentions in international air lines. The authors’ formulated seven service dimensions such as timeliness, assurance, convenience, helpfulness, comfort, meals, and safety and security. Confirmatory factor analysis was carried for analysis and they found seven dimensions that are positively significant to the perceived quality. Out of seven dimensions, safety and security was most important and timeliness was least important factor perceived by the consumer for travelling. The study also revealed that consumer’s perception significant difference according to their demographic profile.

Power J. D. and Associates (2008) measured overall customer satisfaction of electric utilities like electronic ticket booking systems through six factors: power quality and reliability, customer service, company image, billing and payment, price, and communications. Another research work J. D. Power and Associates (2008) also measured customer satisfaction with high-speed and dialup Internet service providers based on five factors: performance and reliability cost of service, customer service, billing, and offerings and promotions. In the same year J. D. Power and Associates (2008) found communication (information systems) can be used to determine customer satisfaction towards utility of companies’ services.

Bigne et al (2008) comments that quality of website significantly affect satisfaction of the customers, and satisfaction of the user will overshadow his motivation for shopping. Other researchers believe that guests of Chinese hotels do not care the names of hotels or cheapness of them, but they search for


\[\text{Power J. D. and Associates Reports (2008), Internet service provider (ISP) residential customer satisfaction study.}\]

\[\text{Power J. D. and Associates Reports (2008), Satisfaction of business customers with electric utilities continues to climb to a new high due to improvements in customer care.}\]

\[\text{Bigne Enrique-alcaniz, Carla ruiz-martín, Joaquín aldás-marzán and Silvia sam-Blas (2008), Influence of online shopping information dependency and innovativeness on internet shopping adoption, online information review, Volume No. 32, Issue No 5, PP. 648-667.}\]
and assess online security, because they deal with online services. The authors claim that the concept of efficiency of transportation (products) in online shops has been less studied by earlier researchers. According to authors’ point of view, this concept includes technical specialty for designing websites, general operational efficiency, effectiveness of aiding, speed of online transfer and transportation. Vanniarajan and Stephen (2008)\textsuperscript{30} identified the attributes that passengers use to evaluate the service quality of Indian Railways (IR) on the bases of: reliability, assurance, empathy, tangibles, and responsiveness. It was found that passengers were ‘moderately satisfied’ to ‘satisfied’ on these dimensions.

According Khan Rubayet Rahaman and Md. Arifur Rahaman (2009)\textsuperscript{31} the increasing pace of urbanization and economic growth, attraction and dependency between different linking regions has also increased transportation service demand. Transportation have performed very crucial roles from very early accelerating the sharing of economic and development benefit of connecting spatial regions. Railway has been proved as a potential sector for drawing economic and development benefits for various countries. But less emphasis has been given in improvement of railway sector mainly in railway service in Bangladesh compare with road and which cause failed to draw proper economic benefit from the sector. This study has aimed to focus on the railway transportation sector and to develop a model defining the relationship between overall satisfaction and service quality attributes in a selective route from Khulna to Rajshahi in southwestern zone of Bangladesh so that it can reinforce further improvement process. Findings of the study show that, overall service satisfaction of passengers’ in the study area depend on eight distinct service quality attributes. The results of the study reveal worst performance of Bangladesh railway services, and poor overall satisfaction of

\textsuperscript{30} Vanniarajan and Stephen (2008), \textit{Railway and passenger satisfaction: An empirical study in southern railways}, Asia Pacific Business Review IV, Volume No. 1, PP. 64-75, January – March

\textsuperscript{31} Khan Rubayet Rahaman and Md. Arifur Rahaman (2009), \textit{Service Quality Attributes Affecting the Satisfaction of Railway Passengers of Selective Route in Southwestern Part of Bangladesh}, Theoretical and Empirical Researches in Urban Management, Volume No. 3, Issue No. 12, PP. 478-482, August.
services. The study emphasizes the management need for priority improvement to support further orientation, addition and betterment of service to draw maximum economic and development benefit from these linking regions.

Devi Prasad. M and Raja Shekhar.B’s (2010)\textsuperscript{32} article aimed to develop and empirically tested RAILQUAL instrument to evaluate passenger perception on rail service quality. This article analyzes the relationship between the importance of attributes for service quality and tolerance zone between the desired and the minimum levels for passengers’ expectations. The authors observed that there are not many published studies to confirm or compare the results of the Railway Passengers service quality. Thus, this article combines the literatures of service quality and rail transport quality to develop the conceptual framework and to develop Railqual. The instrument was tested on a passenger line in South Central Railway, India. Valid responses to 307 questionnaires were statistically analyzed.

The rail transport dimension was development and testing, particularly since the sample was drawn from single passenger line in South Central Railway, India. Based on the Railqual dimensions and Railqual attributes the practical use of “Zone of tolerance” were identified, areas of quality shortfall and managing quality are illustrated in this paper. The empirical study, finding of this study, confirm that, as the importance of attributes increases, the tolerance zone gets closer and higher. Service quality and “Zones of tolerance” can be identified for each dimension and attribute.

Pooja et.al’s (2010)\textsuperscript{33} empirical work aimed to study the satisfaction level of the Passenger’s towards Shatabdi Express train in, Jalandhar and to check the factors which influence the satisfaction level of passengers towards

\textsuperscript{32} Devi Prasad.M and Raja Shekhar.B (2010). Importance and the Zone of Tolerance of Passengers’ Expectations of Indian Railway Passengers Services by applying RAILQUAL. Asian Journal Of Management Research, Online Open Access publishing platform for Management Research, ISSN 2229 – 3795

\textsuperscript{33} Pooja, Vaid Vivek and Mahala Ankush Nag (2010), Passenger’s satisfaction towards Shatabdi Express Train in Punjab, India, Lovely Professional University, Phagwara, Punjab, India.
Shatabdi Express Train. The paper represents descriptive and causal research method usage in, research design, sample selection methods, data collection methods and also in data analysis method. The research was based on the single cross sectional research design and convenience sampling technique. The research is based on the primary research with sample size of 100 respondents who travel by Shatabdi Express Train in Jalandhar. Data were analyzed using factor analysis technique revealed 69 per cent of data validation that could be used for further analysis. One main finding reported in this study was that the data collected through the extraction method reflected on the seven factors which have a mixed kind of effect, the factors like cleanliness of train, value for money, comfort level of train and the reservation systems are the amongst the highest demanded and important factor which Shatabdi train needs to improve the satisfaction level of passengers. The study recommends paying more attention on functional factor in order to improve and develop attractive and marketable Shatabdi express train services.

Maruvada and Bellamkonda (2010)\textsuperscript{34} empirical study aimed to identified attributes to evaluate the quality of Railway Passenger Services and develops a comprehensive instrument “RAIL.QUAL” on the basis of SERVQUAL and Rail Transport quality. Fuzzy set theory has been applied to evaluate the service quality of the Indian Railways (IR). This paper develops an analysis architecture, which consists of fuzzy measurement of S-I (Satisfaction-Importance) degree. The measurement of S-I gap with fuzzy approach to reduce subjectivity and ambiguity of passengers' judgment of service quality. Fuzzy logic helps the authors to avoid the vagueness of evaluators’ judgment. Using SERVQUAL methodology, the optimal fuzzy interval of gap scores was determined for each item. The authors claim that fuzzy approach is a more realistic way to use linguistic assessments instead of numerical values.

Zakaria et al (2010) had mentioned that Service Quality dimensions had become the major determinant to influence the Service Quality of public transports in Lembah Bujang area, Kedah Darul Aman, Malaysia. This study has been done in Lembah Bujang area, Kedah. The study aimed to investigate the relationship between independent variables like tangible, reliability and responsiveness dimension that influences the Service Quality of the public transports like buses and taxis in Lembah Bujang area and aim to identify Service Quality dimension that mostly influences the Service Quality.

The result of the study indicated there are positive correlations between Service Quality and tangible, reliability and responsiveness dimensions. The most important dimensions that influence the Service Quality is tangibility dimension which is focused on Cleanliness/Comfortable of physical facilities. The authors say that the future researchers can attempt to find determine others important factors that influences the service quality of the public.

Geetika and Shefali Nandan (2010) commend that service quality has been viewed as a determinant of customer satisfaction. Different dimensions of service quality have been considered by various researchers. This study identifies components of service quality of Indian Railways (IR) at railway platforms. The study was both descriptive and exploratory in nature and uses factor analysis to identify the most important factors of customer satisfaction with service quality. The findings of the study revealed that five factors are considered important for determining satisfaction with railway platforms, the most important of which are refreshments and behavioral factors. Managerial and theoretical implications are drawn and discussed in the paper, and a model was also proposed by the author.

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Public transport service attributes influencing overall passengers’ satisfaction were investigated by Ngatia et al. (2010)\textsuperscript{37}. A survey to public transport users was conducted in the city of Nairobi. The proposed structural equation model by the author allowed elucidate the interrelationship between the observed variables and unobserved variables and their impact to the overall commuters’ satisfaction. Unobserved attributes such as Service Quality, Safety and Travel Cost were estimated in the current study. Customer’s level of satisfaction was found to be significantly influenced by their attributes.

Fazlina Waris et al (2010)\textsuperscript{38} study applied the binary logistic regression analysis to analyze the customer perception towards Electric Commuter Train (ECT) services in Malaysia. This study focused on KTM Komuter since it is the only ECT provider in Malaysia. Data from respondents in twelve selected KTM Komuter stations were used to measure by classifying service status via punctuality, frequency, speed, space, reliability, comfort, safety, and train operation. A total of 564 respondents among the customers on board the train and those waiting for trains are conveniently available in the stations were interviewed using structured questionnaires. It was found that, the factors that most influence the good services were frequency, speed, reliability, comfort, safety, and train operation. This result was based on the customer perception and the final model indicated that the approach may be useful for estimating aggregate of good service.

Bharathi’s (2010)\textsuperscript{39} empirical study concluded that the Indian Railways (IR) have to pay more attention towards passengers’ comfort inside the train, cleanliness of waiting halls, platforms, comportment, adequacy security arrangement, concession given to various sections of society, excellent lay out of platforms, restaurant, tea stalls, coolest bars etc. Provision of adequate


\textsuperscript{39} Bharathi, N (2010), Customers’ Perception of Indian Railways (Special Reference to Coimbatore Region), Technia Journal of Management Studies Volume No. 5, Issue No. 1, April 2009 – September 2010.
amenities is the factor which has great influence over the other factors selected for the study, so the railway administration may concentrate its attention towards it enhancing total passengers’ services.

Devi Prasad M. and Raja Shekhar B. (2010) empirical study presented a framework developed for assisting Railways to monitor and control the quality of services provided to passengers. The study evaluated the passenger Rail Service quality of Indian Railways (IR) by developing SQM (Service Quality Management) model on the basis of SERVQUAL and Rail Transport Quality. Three new dimensions (Service Product, Social Responsibility and Service Delivery) are added to the original five SERVQUAL dimensions (i.e. assurance, empathy, reliability, responsiveness and tangibles). The instrument was tested for reliability and validity. Empirical study was conducted at Secunderabad Railway station of South Central Railway, India. This research identified the order of importance for these eight factors, for example service delivery and social responsibility are identified as the most important and the least important factors respectively. The authors believe that this study would help the Railways to monitor, control and improve the service in a better way.

According to I-Chen Lee (2011) safe, high speeds, on time, high transport volume, minimum land use, low energy and low pollution are unique features of high-speed rail transport. Developing countries with threshold level of economic development, traditional railway system will no longer satisfy the need of the mass in cross-township transport. As the cost of energy and demand for environmental protection escalates, high-speed rails have gradually surfaced as a competitive mode of transport in cross-township traveling. Furthermore, it is able to bring regional developments. However, high-speed

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rail transport is a new industry in Taiwan. There has been no hands-on experience in the passenger service. However, through the development of marketing strategy and implementation, of promote the service quality and customer satisfaction, has been a primary operations objective of high-speed railways. This motivated the need to study the service marketing strategy in high-speed rail transport. The Taiwan High Speed Rail Corporation (THSRC) is the subject of this study.

The 7P marketing mix of the service industry was the theoretical discussion in this study. Secondary data on the service and marketing strategies of high-speed railways were collected from the countries such as Japan, France and Germany. A question was framed for conducting in-depth interviews with experts in high-speed railway. In addition, a survey questionnaire was developed from the data collected via interviews. Passengers taking the Taiwan High Speed Rail were surveyed for statistical analysis. Finally, an appropriate service and marketing strategy was developed. The results of the study reveals that, the Taiwan High Speed Rail needs to first build a brand image of safety and credibility. It needs to schedule and allocate headways in line with its target passenger group and develop a comprehensive product strategy for its target customers. Having done this, there is a need to propose competitive price strategies and promotion programs on corporate customers and travel agencies. Making use of the comprehensive mobile telephony coverage and internet network, the more convenient channels should be further developed. Furthermore, the THSRC needs to solve the problem of passenger transfers in station areas gradually. This is necessary to promote the overall service quality, satisfy divergent needs of the target market, and build up a recognized brand in high-speed railway transport. Finally, the recommendations made to THSRC were compared with service and marketing strategies in other countries. The author believes that the results of the study would be able to provide THSRC and any other countries planning to develop high-speed railway as the study propose, some practical reference for planning their marketing strategies.
Srinivasan V. et al (2011)\textsuperscript{12} have proposed an approach to prioritize service improvements based on the twin objectives of higher customer value and lower cost service offering by Indian Railways (IR). The approach involves

1. Conducting qualitative customer studies to identify a list of possible service improvements,
2. Conducting a quantitative, conjoint-like survey to determine values customers attach to each of the improvements,
3. Collecting data on the costs of making the service improvements, and
4. Putting the data in (2)-(3) together to prioritize improvements using a “bang for the buck” rule.

The authors believe that these approaches also allow for maximizing the likely increased service usage resulting from any subset of service improvements subject to a budget constraint. The authors illustrate the proposed approach in the context of improving passenger train service between a pair of cities in India. An adaptive self-explicated approach was used for obtaining customer values and cost estimates. The customer values so elicited display substantial face validity.

The study of Reeti Agarwal (2011)\textsuperscript{13} made an attempt to the factors related to Indian Railway (IR) services that had an impact on customer satisfaction. The study was conducted using the survey method. Data was collected through a structured questionnaire from a sample of 500. Factor and regression analysis was used to analyse the data and identify the effect of customers’ perception about the quality of performance of various factors on customer satisfaction. The major findings of the study depict that out of the

\textsuperscript{12} Srinivasan V., Shaines H. G. and Anand K. Sharma (2011), An Approach to Prioritize Customer-Based, Cost-Effective Service Enhancements. Adams Distinguished Professor of Management, Emeritus, Graduate School of Business, Stanford University, Stanford, CA 94305, USA, 650-723-8505. shaines@stanford.edu, Associate Professor of Marketing, Indian Institute of Management—Bangalore, Bannerghatta Road, Bangalore 560076, India, 91-80-2665-2450, shainesh@umc.ernet.in. Professor of Finance, Management Development Institute, Mehditali Road, Gurgaon 122007, India, 91-124-156-0315, amanokz@mdir.ac.in.

various factors considered; employee behaviour has the maximum effect on satisfaction level of customers with Indian Railways (IR) as a whole.

According to the scenario of todays’ competitive market, organizations increasingly understand the importance of building and effective management of relationship with its customers. For building and maintaining a healthy relationship with the customer, organizations need to understand and meet the expectations of its customer. The organizations today should aim not only at satisfying the customer but should also focus on delighting him. Thus it has become imperative for organizations to identify parameters that cause customer satisfaction or dissatisfaction and consciously measure them so as to try and bring about the necessary changes on the basis of customer perceptions.

Myung-Ja et.al (2011) empirical research emphasize the need for strengthening role of trust and satisfaction of the passengers (customers) who shop online of tourism products and services. This research was conducted in the country of Korea and statistical sample of passengers who attend to purchase travel tickets through internet were surveyed. The findings of the study focused on effects of trust, satisfaction variables on loyalty, indirect study on variables of transport, security and transfer expenses. Two factors of trust and satisfaction were considered as the independent variables and the factor of loyalty was treated as the dependent variable.

Irfan et al. (2011) aimed to investigate the passengers’ perceptions about the service quality of rail transport system in Pakistan while traveling between the major cities. Several latent variables were introduced in this study with the support of structural equation model. such as, tangible, empathy, assurance, responsiveness, timeliness, food, information, safety. The studies

Myung Kim, Namho Chung, Choong Lee, (2011), The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea.

found that only tangibility have a positive and significant impact on passenger perception as well as satisfaction.

Pooja Jain and Narender Kumar (2011)\textsuperscript{46} say that with the rapid developments in the sphere of information technology, internet has become a powerful tool in business. As a result, e-service quality has become critical for companies to attract and retain the customers in this virtual environment. The main aim of this article was to provide insight into the dimensions of e-service with an empirical study on online railway ticket reservation website service. Primary data was collected from the online users of Indian Railways (IR) in India with the help of 21 item instrument which was devised on the basis of thorough review of literature. To extract the various dimensions of e-service quality factor analysis was performed via SPSS 16. The results of study revealed four core e-service quality dimensions namely: Efficiency, Responsiveness, Privacy and security and Reliability. Surprisingly, privacy and security dimension scores the highest score of 3.85. The study indicates that the users do not recognize considerable risk in online environment of service stemming from the possibility of misuse of their financial information and personal information. It is followed by efficiency, responsiveness and reliability with mean scores of 3.72, 3.43 and 3.19 respectively. The authors recommend that the railway managers should focus on providing superior technical function of the website without any operating problems and 24 hours access to e-service. The author highlights that if the users cannot use e-service when they need, they will immediately switch to some other e-service. Directions for further research on e-service quality are offered in this study. Managerial implications stemming from the empirical findings about e-service quality are also discussed in this empirical work.

In the research paper of Agunloye O. O. and Leke Oduwaye (2011) they had examined the user’s opinion on the factors influencing the quality of rail service passengers operation in metropolitan Lagos. The study also evaluates the relationships that subsist between the variables of the factors influencing the quality of rail passengers’ services. The paper concludes that, most of the passengers make higher trips per week and are likely to depend more on train than other modes. The authors’ recommend the railway services to maintain the coaches and toilets to be kept clean from time to time so as to attract more patrons and improve the quality of the rail transport service in metropolitan Lagos.

The empirical study of Rajaram R. P. C. S. (2011) aimed to empirical study aimed to analyzed and identified competitive position of railways strengths and weaknesses among the passengers. The author says that Indian Railways (IR) is the largest rail network in Asia and world’s second largest network under a single management. This study aims to identify the perception and expectation level of the passengers towards the service provider in Trivandrum and Ernakulam districts and to identify relative importance of service quality dimensions rated by the passengers. This descriptive research adopted multistage sampling technique. The result of the study reveals that the passengers have expressed satisfaction towards service provider in Ernakulam and Trivandrum railways. The results of the gap analysis, reveal lowest service gap occurred in “assurance” and “reliability” dimension and little bigger service gap is occurred in the “tangibility” dimension.

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The research papers of Sudin Bag and Som Sankar Sen (2012)\(^9\) had used data collection through a structured questionnaire from a sample of 250 respondents. This research paper aimed to find the factors related to Kolkata Metro Railway services that had an impact on customer satisfaction. An author says that in today’s competitive scenario consumer satisfaction is the first priority. For this purpose, they have to meet the expectation of its customers. The organization should aim not only at satisfying the customer but also focus on delighting them. Thus it has become essential for an organization to identify the factors that affect customer satisfaction level and consciously measure them so as to try and bring about the necessary changes on the basis of customer perception and requirements.

The research work of Laura Eboli, Gabriella Mazzulla (2012)\(^5\)\(^0\) aim to an investigation of the influence of a series of service quality attributes on the overall service quality of the railway service. The authors’ adopt users’ perceptions expressed in terms of satisfaction and importance for verifying this influence. And the presence of latent variables explained better in nature relationship that exists between the variables tested.

According to Pranay Patil (2012)\(^5\)\(^1\) the Indian Railways (IR) network connects areas across the length and breadth of the country. The passengers travelling represent the broad diversity of the country – regional diversity, cultural diversity and financial diversity. The author comments in due to the vast diversity of the country, especially the food cuisine changes as one travels from one region to another. The catering service providers have to take into account the diversity of the passengers and provide services that would be

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appreciable by all. However, there are many faults in the planning and
managing this system which leads to consumer dissatisfaction.

The research study of Durgamani.et.al (2013)\textsuperscript{52} to identify the
problems between the passenger and railway administration and also aims to
providing suggestions to reduce the problems to enhance the relationship
between passenger area railway administrations. The study identified of factors
that determine passenger satisfaction with the quality of services provided by
the Kumbakonam Junction Administration. The identified factors are,
availability and quality of refreshments, effectiveness of information systems,
and behavior of railway staff, basic amenities provided on platforms, and safety
and security. Refreshments and behavioral factors are considered as most
important by passengers. These factors determine passenger satisfaction on
railway platforms and may be different from determinants of satisfaction with
Indian Railways (IR) as a whole. The study thus provides a direction for
railway administration whereby areas for improving services may be identified
and user (passenger) satisfaction, specifically on railway platforms, may be
enhanced by the Kumbakonam Junction.

In the empirical study of Rajeshwari. G and Tamilchelvi, N (2014)\textsuperscript{53}
aim to find the attitude of passengers towards retention strategies adopted by
the Indian Railways (IR). A total of 500 respondents have been taken by
applying stratified random sampling technique in Salem Division of Southern
Railway Zone. The study found that the passengers have good attitude towards
retention strategies adopted by the Indian Railways. The study suggests that the
Indian Railways (IR) have to transform themselves to market-responsiveness

Travel with Special Reference to Kumbakonam Station in Tamilnadu, Indian Journal of Applied
Research, Volume No. 3, Issue No.4, ISSN + 2249-555X, PP: 332-335, April.

\textsuperscript{53} Rajeshwari, G and Tamilchelvi, N (2014), Passengers’ Attitude towards Retention Strategies
Adopted by the Indian Railways: A Study in Salem Division of Southern Railways, International
entities in order to succeed in business. The fundamental change required is that the service should be tailored to meet specific needs of the passengers.

2.3 Conclusion

From the elaborate literature survey it has been realised that in the recent past many studies analyzing had analysed and reported on the transit service quality based on users’ perceptions in terms of attitude, perception, satisfaction and authors’ judgments towards service quality of railway services across the world countries in general and few studies on Indian context. Specifically, the review work analyzed railway service, and in addition, a detailed and relevant number of service characteristics were investigated by the earlier researcher. But, the in the past not enough study were conducted in the Indian context, especially in field of Railway services, the customers’ satisfaction towards on-boards or off-boards service features. The prevailing dearth has been identified as the research gap, thus this study aims to focus on the ‘Passengers’ Satisfaction towards Southern Railway Services, with special references to Tamilnadu.