Transportation creates place utility by transferring goods and persons from place to place. It has considerably contributed to economic development and for social, political and cultural unification. Transport sector contributes significantly to India’s GDP, employment and FDI inflows. It is estimated that if the Indian economy grow at around 7-8 per cent on an average, the transport demand will grow by 10 per cent annually (Journal of public transportation 2004).

Rapid growth of India’s urban population has generated an enormous need for efficient public transport service. The Government’s role gradually changed from a direct provider to a facilitator and to make sure that the services are made available to all consumers at affordable prices, the
Government adopted privatization. However, public transport still remains the primary mode of transport for most of the people and India's public transport systems are among the most heavily utilised in the world. (wikipedia.org.transport).

Economic and commercial development of any country largely depends upon the efficiency of rail transport. Administration, military defense, growth of agriculture, industries and trade, movement of food and other necessaries of life, disaster management and the growth of towns and ports - all depend on Railways as the most important form of transport. The introduction of new technologies in the field of agriculture, growing rate of industrialization, trade and commerce and other welfare activities aggravated the intensity of pressure on Railways (M. A. Rao 1975). However, as the cost of construction of railways is ten times that of roadways, the expansion of railway line is relatively slow.

1.1 Role of Railways in the Economic Development

Railways have indeed brought about spectacular changes in the political, social and economic life of the country. Railways are built for national integration, military purposes, economic development and exploitation of resources. Railways contribute to the economic development under the following:-

a. Railways help to unite the people who inhabit in different regions of the country.

b. It further connects centres of commerce and industry, pilgrim centres, historical sites and important tourist centres.

c. It provides employment to millions of people.
d. During emergency time, troops can be mobilized in trains to the places of disorder.

e. By transporting goods from places of plenty to places of scarcity, Railways help in the equalization of prices of commodities throughout the country.

f. With the introduction of Railways, subsistence farming is replaced by commercial farming.

g. Railway services, being fast and safe, enabled the traders to reduce their stock holdings. (WTO Report 1998).

h. It promotes economy by facilitating agricultural and industrial development and ensures balanced regional development.

i. In consequence to railway development, trade increases and naturally, national wealth increases.

An efficient railway system lowers the cost of transportation, integrates people and markets across the country, links backward regions with the mainstream economy and thereby increases the overall productivity and global competitiveness of the economy. In developing countries like India and China, railways are the main forms of mass passenger transport at a price accessible to the majority of population.

1.2 World Railways –An Overview

Although there has been a growth in the rail transport sector in some countries, there is no clear trend in this regard, across countries. The rail network increased in countries such as China and Thailand, but declined in countries such as Brazil, Japan, France and New Zealand. In India, China and Egypt passenger kilometer almost tripled between 1950 and 2000 (World Bank Railway data base 2000). Railways around the world are facing
competition from other modes of transport such as road, air and waterways. Railways in many countries have tried to increase their share of high-value added traffic by establishing trans-national freight corridors.

Though one million route kilometers of World railways spread over 120 countries, the vast majority of operating activities is found only in a few nations. While the top five national railway system (US, Canada, former Soviet Union, India and China) account for 53 per cent of total route kilometer, they carry over 90 per cent of world ton kilometer and 56 per cent of passenger kilometer (S.K. Srivastava 2000). Certain Railways (US, former Soviet Union, China and Mexico) carry mostly freight which permits higher productivity and a ‘commercial’ approach to prices and services. Other Railways (Sri Lanka, India and most of West European) carry much more passenger services than freight which constraints productivity, raises costs and invites political interference in operations and pricing. In case of India and Western European Railways, a significant part of passenger activity is suburban community which is both costly and contributes only limited earnings.

In **Holland**, the state owns the railways, but does not operate them. When there is separation of ownership and operation, there is conflict of interest and policy detrimental to the development of railway industry. **Russian** railway system is the largest nationalized undertaking and it has the advantage of availability of capital, reduction in rates and fares, economy in operation, development of neglected areas, national defense etc. In early times railway construction was entrusted to private companies and in 1881, the Russian government started railway construction. When the First World War came to an end, only 40 per cent of locomotives were in working order
and some lines were badly damaged and some had become extinct. After the Second World War, Russia began to rebuild the transport system.

The American Railways are classified into three classes on the basis of their annual revenue and also into three territories, each of which was again divided into several regions. Nearly all the railways in the country are organized as corporations. The ownership and management of Australia’s rail infrastructure and rail operations are generally divided into below rail (track management) and above rail (operations of trains and rolling stock). These functions are performed by a mix of government and private sector operations. British railways were opened for traffic in 1830 due to the Industrial Revolution. The British Railways came to be controlled by the State in 1914 when the First World War broke out and it had made considerable progress after the Second World War.

The first Railway line in Singapore was built in 1903 and in 1987, Mass Rapid Transport System (MRTS), the back bone of Singapore Rail network commenced. It runs underground of the city and on the surface or elevated surface throughout the rest of the island. There is mono-rail system for pleasure trips also.

In 1872, with the help of Englishmen, the Japanese Government constructed eighteen mile line between Tokyo and Yokohama. Profits from this line encouraged the government to start Nippon Railway Company in 1881 and within a decade fifteen new companies started functioning. In order to provide encouragement to private companies to construct feeder lines, it began to give them subsidies. The first line in China was constructed in 1881 connecting Kaiping mining area. After the establishment of Chinese Imperial Railway Administration in 1896, rapid progress was made in
railway construction with foreign aid. **Pakistan** Railways are nationalized undertakings. When Pakistan was created on 15th August, 1947, she had 6957.88 miles of routes, 1339 railway engines, 4280 passenger coaches and 40221 wagons.

### 1.3 Indian Railways

Indian Railways, (IR) the lifeline of the nation, is a unique state-owned enterprise because of its size, ownership, structure and 160 year old history. It has a route kilometer of 64600 km spread over 7146 stations across 25 states and 3 Union Territories (Delhi, Puducherry and Chandigarh Sikkim). Arunachal Pradesh and Meghalaya are the only states not connected by rail. (IR Year Book, 2011) IR is the largest passenger carrier in the world and runs around 17000 trains a day, of which 11000 are passenger trains (R.N. Misra 2010). It is the world’s third largest rail network and the second largest in Asia and is operated by a workforce of around 13, 06,000. It is the world’s fourth largest freight carrier and is the principal mode of transport for inland bulk cargo and long distance passenger traffic.

### 1.3.1 Development of IR during Five Year Plans

Development of IR during the Plan period is outlined as follows:-

- **First Plan**-(1951-56) Concentration on rehabilitation of depleted assets and establishment of various production units.

- **Second Plan**-(1956-61) Extensive doubling, numerous line capacities work modernization of signalling, introduction of electric and diesel traction to meet the demand. A separate Ministry for Railways was created on April 17, 1957 with Jag Jeevan Ram as the first Union Minister for Railways.
➢ **Third Plan**-(1961-66) Efforts were taken to enable rail transport capacity ahead of traffic demand.

➢ **Fourth Plan**-(1969-74) Conversion of Meter Gauge (MG) into Broad Gauge (BG), construction of new lines to serve areas of high traffic potential. The end of the Plan put the Railway in a comfortable position in respect of goods as well as passenger traffic.

➢ **Fifth Plan**-(1974-78) concentrated on doubling lines, adding coaches, wagons, electrification etc. for future development.

➢ **Sixth Plan**-(1980-85) Contribution to Depreciation Reserve Fund (DRF) was enhanced from ₹ 250 million per year in the fifth plan to 8500 million. First metro rail system was introduced in Kolkata. Electrification and doubling of track was also done.

➢ **Seventh Plan**-(1985-90) Investment on Railways as percentage of total plan expenditure was the highest, as compared to earlier plans. Modernization of track structure, use of concrete sleepers and new track machines were introduced to improve the quality of track for higher standards and safety of high speed trains. Electrification of heavy density routes, new coach factory at Kapurthala, EMU coaches for suburban trains, upgradation of communication networks, high power diesel and electrical locomotives were achieved during this Plan period.

➢ **Eighth Plan**-(1992-97) Upgradation of technology for a higher freight throughput with better comforts, safety and high speed intercity trains with high standard coaches, computerized Passenger Reservation System etc. were introduced.
Ninth Plan-(1997-02) Introduction of high speed trains like Janshatabdi express was the major achievement during this Plan period. At the end of the period, the IR has come to the verge of a collapse, facing the greatest financial crisis in 2001.

Tenth Plan-(2002-07) This Plan period has witnessed a turnaround to IR. This was the result of a drastic change in the management strategies along with other factors. This magical performance of IR grabbed the attention of the management scholars and professionals around the world.

Eleventh Plan-(2007-12) The Plan focuses on customer satisfaction, introduction of innovative and customer oriented stations like, Model and Adarsh stations. Non-stop Duranto trains were introduced for long distance travellers during this period.

1.3.2 The Crisis in 2001

With liberalization, the demand for value added transport services increased. It faced capacity constraints in high density corridors due to the governmental monopoly induced inefficiency. To aggravate the situation, the Railways abnormally increased the freight rates and heavily subsidised passenger transport. This dissuaded the freight traffic from rail to road transport. Similarly, the upper class fares were also exorbitantly increased to subsidise lower class fares which led to a shift in upper class passenger traffic from Railways to Airlines.

Railways have the dual role of a commercial undertaking and a public sector undertaking. As a commercial undertaking, they have to generate adequate revenue to meet the expenses and also for its development. It being a public undertaking, as a part of its social obligation, the Railways sustain
losses in the operation of suburban and short distance services and also in maintaining uneconomic branch lines. Social obligation involves cross-subsidization of passenger services by freight revenue as also subsidization within passenger and freight segment. Food grains, salts, fruits, vegetables etc. are carried at concessional rates which do not cover the cost of operations. Further, relief supplies to flood hit and drought hit areas are carried free of cost. In addition to all these, the customers and passengers are given a lot of discounts and concessions. The passengers in sub-urban trains and ordinary trains in non-suburban areas are charged much below cost, as a part of its social obligation.

All these measures challenged the commercial viability of IR. Though the Railways took various measures in early 2000 to re-balance tariff and involved private sector in non-core activities, it faced a financial crisis in 2001.

1.3.3 The Strategies

To recover from the financial crisis, in 2005-06 the Ministry of Railways formulated an Integrated Modernization Plan for five years to upgrade the operations to global standards. Effective utilisation of assets, outsourcing of non-core activities, ensuring cost effectiveness, focussing on revenue increase through innovative methods, popularising e-ticketing and Tatkal scheme, introduction of AC trains etc. were the major strategies adopted. The private players were allowed to participate through the Public Private Partnership (PPP) in operating Container trains on designated routes, developing rail-side warehouses, constructing logistic parks, budget hotels, strengthening Railways’ port connectivity and developing Dedicated Freight Corridors (DFCs). Non-core activities such as product manufacturing have
been opened up for Foreign Direct Investment and corporate management has been introduced for Catering.

1.4 Southern Railway

For operational convenience, IR has been divided into seventeen zones (including Kolkatta Metro) and Southern Railway (SR) is the first zone formed in 1951 with the merger of the Madras and Southern Mahratta, the South Indian and the Mysore State Railways. It covers the entire state of Tamil Nadu and Kerala, Union Territory of Puducherry as well as very little segments of Andhra Pradesh and Karnataka and is affectionately known as ‘Sambar Idli Railway’ (R.R. Bhandari 2004). Till 1966, SR was the biggest zone stretching from Visakhapatnam in the East to Pune in the West and Trivandrum in the South with 8 divisions. With the formation of South Central Railway, it lost Hubli, Vijayawada and Guntakkal divisions. SR has some distinct features which are detailed as follows:-

- SR is a terminal railway, where a large number of trains originate and terminate their service, which necessitates high terminal expenses.

- The peculiar topography of the area necessitates large number of gradients and curvatures to the railway track.

- The population density in the southern part of the peninsula is high and coal, iron ore and other mineral resources are concentrated highly in the northern part. It derives a major portion of revenue from passenger rather than freight and suburban operations are in Chennai division only. Compared to other railways, a passenger oriented railway requires additional cost or expenses to meet the seasonal demands, maintaining time schedule, more number of stoppages and
introduction

junctions, repairs and operational expenses, provision of passenger amenities in trains and stations etc.

➢ Since SR lies far away from the coal belts and major industrial hubs, majority of traffic is inward.

1.5 Statement of the Problem

Railways, being a public utility undertaking, have been bearing social burden in the form of loss on coaching services and loss on lower freight rates for food grains and other essential commodities. Further, the politicization of business decisions and lack of professionalism in management aggravated the situation and led to a great financial crisis in 2001. Though Rakesh Mohan Committee recommended privatization, retrenchment of staff and an independent Tariff Regulatory Authority, the then Railway Minister, Mr. Nithish Kumar, implemented strategies on cost reduction and focused on revenue earning measures by retaining state ownership.

Sri Lalu Prasad Yadav followed the steps taken by Nitish Kumar and introduced rationalisation in management through innovative strategies to increase the revenue and reduce the cost. IR witnessed a sudden or sweeping change in earnings, surplus and overall ambience in Railways. A cash surplus of ₹ 70,000 crores and a drastic reduction of operating ratio from 98 per cent to 78 per cent were recorded by IR in 2008. However, there was a disagreement in respect of factors that contributed to turnaround. Research, being a fact finding enquiry, concentrates on identifying these factors.

SR, the fifth largest zone in IR, stood an exception to the general phenomenon of increased surplus. Though the strategies and other factors brought turnaround in IR, SR’s operating ratio was greater than 100.
Therefore, the researcher attempts to study the financial performance of SR in relation to turnaround in IR.

The financial performance is always linked with customer satisfaction and employee satisfaction. Innumerable research studies establish that service quality has considerably improved owing to myriad turnaround initiatives from the part of IR. While passengers are the beneficiaries, employees are the real providers of the services. Passenger satisfaction is influenced by quality and behaviour of employees. Only a satisfied employee can discharge his duties according to the expectation of customers. The study is complete only when their level of satisfaction is also analysed. Therefore, the study is multidimensional which takes stock on the financial performance of SR in terms of revenue and expenditure, passenger satisfaction on improvement of service quality and the employees’ satisfaction.

1.6 Review of Literature

Turnaround in IR is a long debated issue for the past few years in India and abroad. Many study reports and articles mentioned the reasons for the financial turnaround and its sustainability in future. The strategies and reasons behind turnaround would be manifold; and it will take time to assess its sustainability. Though it was a topic of hot discussion in the last few years, field based information relating to customer satisfaction and employees satisfaction are rare on the subject.

A good number of descriptive studies have been conducted by researchers, various institutions and agencies, but they all deal with the issues at the broader level only. The researcher has visited libraries at IIM, Kozhikode, University of Kerala, Madurai Kamaraj University, Annamalai University, Bharathiar University, Bharathidasan University, Cochin
University of Science and Technology and Institute of Management, Kerala at Thiruvananthapurum and Alappuzha. Relevant data from official websites of IR and SR were accessed. Detailed discussions were made with senior officials with different years of experience and exposure. An attempt is made to review the available literature on the subject under study for the past thirty years. Most of the studies conducted in the area are in the form of case studies and had ignored a detailed and simultaneous analysis of financial performance, service dimensions and the perception of employees. The literature has been reviewed under four different heads, viz. turnaround in world railways, turnaround in IR, passenger satisfaction on various service dimensions and employee satisfaction.

1.6.1 Turnaround in World Railways

A case study by Keith. L. Bryand, (1986) reveals the efforts taken by Southern Railway, USA to reduce working cost and increase earnings under the governance of D. William Brosnan, President of Southern Railway. Large scale mechanization, reducing manpower, and even attempting to dilute safety rules were implemented to achieve cost reduction.

Patric Le blond (1995), in a case study on Canadian National Railway Company (CN) analyses the turnaround of CN which suffered loss. Privatisation and de-regulation of CN provided the necessary conditions for the CN take off. With the de-regulation of CN from the government control, the CN railway could make use of the opportunities raised from the increased traffic requirement of North American Free Trade Agreement. (NAFTA)

The turnaround strategy adopted by Roy Puffet, CEO, Kenyan Railway involves intensive training imparted to its staff including computer knowledge and have stopped obsolete practices. He also introduced
Performance Related Incentive (PRI) system that enhanced revenue by 2 per cent and reduction of accidents by 30 per cent.

In the year 2002, Swedish railway (known as SJ) was facing bankruptcy due to poor management. Since then, the company has taken so many market-focused strategies. It has identified various customer groups and their needs and then developed various products and services to satisfy as many travellers as possible. It enhanced its profitability by creating a flexible pricing model. By 2008, it successfully navigated out of bankruptcy by introducing a loyalty program that attracted more passengers.

The Asian Development Bank and the Chinese government have employed Chakra Infrastructure consultants Private Ltd, in March 2008 to study and analyze the Chinese railways turnaround strategies to improve the quality of customer servicing, to encourage customers to buy private wagons and to reform existing transportation planning according to market demand.

1.6.2 Turnaround in IR

As far as Indian scenario is concerned, most of the studies have been undertaken by the top officials of IR and professors from different IIMs, IITs, Railway institutes and colleges.

M.K. Puranjape (1980) in his book states that the Railways are able to maintain and improve their performance and provide the transport facilities to meet the growing needs of the nation by means of an upward revision of the railway tariff structure. This book was written when IR faced an operational crisis in 1980.

Brian Rat Cliffe (1982) discusses cost effective operations for gaining profit in transport undertakings. He states that examination of cost elements is essential to identify the possible area of savings. Cost-effective
operations include location of depots and warehouses, route selection and vehicle scheduling to achieve greater economy in fuel consumption. Effective rate setting is considered to be one that allows for a reasonable return on capital, covers operating cost, and provides a reserve fund to cover overheads and a reasonable profit for reinvestment.

Loannis N Ressides and Robert D Willig (1995) in their World Bank working paper, mentioned of restructuring and regulation of rail industry for public interest. They applied the principles of Industrial Organization to analyze the rail industry. Nature of technology, costs and demand in the rail industry is to be understood to assess the implications of policies aimed at rate regulation or infrastructure investment. They suggest that restructuring along the lines – putting more emphasis on market effectiveness will result in a more profitable railway. The authors have outlined certain principles which pointed towards a great deal of reliance on market forces to shape prices and logistics of services. The internal managerial reforms are also necessary for restructuring.

Arun Varma (1996) has discussed the need to augment capacity through Private sector participation with its limited funds. BOLT (Build, Operate, Lease and Transfer) has been proposed for track doubling, electrification, gauge conversion and for addition to rolling stock.

Amit Dinakar, Dipayan Chakravarthy, Prashanth Yadav, Rajeeesh Kumar, Sudip Sharma (2001) analyzed issues which require urgency are matching customer requirements, operating like a commercial organization, focusing on its core competency and start empowering employees to take quick decisions. They analyzed Rakesh Mohan Committee report and
suggested to create relationship between Railways and Government to induct professional management.

**Arpita Mukherjee and Ruchika Sachdeva (2004)** in their article mention that the Railways investigated the developments in rail transport sector both globally and in India, in the context of GATS 2000 negotiations. Although IR have a public monopoly and there is limited scope for foreign investment, India is found to have export potential in maintenance and repairs of rail transport equipment and supporting services. The study suggests that India should therefore, offer liberalization commitments in these two sub-sectors of rail transport. The study emphasizes on the need and urgency for restructuring rail transport services on commercial lines and suggest various reform measures, like demarcation between social responsibility and commercial operation, privatization of non-core activities and certain segments, tariff restructuring, transparent accounting practices and an independent regulator for better manpower management.

A study by **Krishna Veni L. and Sangeetha Ghosh (2005)** about the performance of Railways reveals that along with increase in gross traffic receipts and net traffic receipts, the working expenses have also been increasing after 1990. This shows that Railways are engaged in expanding activities. The financial performance of some zones like Southern Railway, Eastern Railway, North Eastern and North-East Frontier railways need to improve their performance to balance with other zones.

**V. K. Agarwal (2006)** opined that some measures taken have eroded the customers’ confidence and suggested the setting up of Tariff Enquiry Committee, Dedicated freight corridors and High speed passenger corridors.
Balakesari K (2006) in his article analyses the tangible factors that have contributed directly or indirectly to the improved financial health of railways in recent years. According to the author, though the actual turnaround started as early as 2002, the results were visible only from 2005 onwards. The author also points out that the policy of right-sizing the staff initiated in 1999 was one of the significant steps which contributed towards restraining the upward trend in ordinary expenses.

A study by George A. Boyne (2006) suggests that a combination of retrenchment, repositioning, and reorganization is more likely to recovery than continued failure. He has developed a model for public sector turnaround based on the literature review of private sector turnaround.

Sudhir Kumar and Shagun Mehrotra (2007) observed that the transformation in Railways occurred through economies of scale and the strong political leadership of Mr. Lalu Prasad Yadav, through distinct approaches and swift accomplishment. According to them, the Minister had taken measures for benefiting Railways without burdening the poor by segregating variables which are politically and financially feasible. According to their analysis, only 20 per cent of the variables are politically sensitive and the rest 80 per cent are commercially viable. To reduce the unit cost and to increase the revenue, trains were made faster, longer and heavier.

Ankit Gupta and Vidya Bhatt (2007) focused on turnaround strategies and the possibilities of privatizing IR by making a comparison with the British Railways. They opined that the turnaround occurred due to capacity enhancement, capacity utilization and revenue enhancement. The study suggested income based market segmentation strategy and focus on commercialization rather than privatization.
Confederation of Indian Industry (2007) presented a paper in the International Railway Conference, New Delhi, analyzing the cost structure and earnings, operating ratio and wagon turnaround time over a period of twenty years. Capacity enhancement and capacity utilization, tariff rationalization, dynamic pricing policy, upgrading axle load capacity introducing high horse power locomotives – all strategies of IR are studied. The study made a benchmarking with foreign railways like Brazil, China, and Australia. The study focused some areas such as implementation of high speed freight corridors in South India, providing investment incentives to attract FDI in rail infrastructure, encouraging private investment for manufacture of locomotives, passenger coaches, track equipment and signalling infrastructure, reduce cross-subsidy of passenger operations, development of infrastructure for intermodal connectivity which includes creation of warehouses, logistic parks, SEZ etc.

Desh Gupta and Milind Sathye (2007) made a study about the financial turnaround and found that both managerial leadership and good luck contributed to the success of IR. They examined the data for the period from 1996-2007 i.e, five years before 2001 crisis and five years after 2001 including turnaround. Reviewing performance in rail sector is usually done on four basic indicators namely, operating ratio, net surplus, dividend paid on capital and net revenue to capital ratio, and not on investible surplus. They made the study about the three R’s of IR turnaround.viz; Repositioning, Reorganization and Retrenchment, which did help turnaround in IR along with the general growth of the economy. Reorganization means changes in accounting and management information systems to provide financial, operating and management information needed to increase efficiency. Retrenchment strategy helped the IR to curtail costs which also resulted in
turnaround. Repositioning is customer centric and revenue raising innovative initiatives. In addition to the above, change in macro-economic condition, rise in demand, Supreme Court verdict banning overloading of trucks, leasing out of parcel service, catering business and private investment under wagon investment scheme also contributed to turnaround.

G. Raghuram (2007) has analyzed the turnaround strategies related to increase in earnings and reduction of cost. He has stated that the commonsense based approach, caring attitude to staff and unions, consistency of direction from Ministry of Railways, identifying right people, all these contributed to the turnaround. He has suggested some measures to sustain this turnaround in future. According to him, the sustainability mainly depends on political leadership and consistency of direction and in order to sustain the turnaround, IR should focus on organizational restructuring. All the strategies have to be customer centric and the dimension of market segmentation should be on the basis of size of customer, time value of cargo, monetary value of cargo, rake load etc. He suggests a periodic market research in the passenger segment.

Anand K. Sharma and Mathew J. Manimala (2008) in their article examines about turnaround in IR in the theoretical perspective of Stage Theory to answer the question of sustainability of the IR turnaround and fills up the gap of research in public sector.

G. Raghuram and Rachna Gangwar (2008) conducted a study which covers financial and physical aspects of revenue generating freight and passenger traffic from 1987-2007 and also the development in non-core activities like parcel, catering and advertisement sector. They made a SWOT analysis to have a complete listing of strength, weakness, opportunities and
weakness of the IR. The study concludes that compared to the past, the focus is more on telecom and signalling, user amenities and information technology. It also reveals the major issues before the IR like huge employee cost and cost of market borrowings.

A study by A.V. Poulose (2008) has mentioned that about 70 per cent of the increase in surplus is due to the growth in economy and 30 per cent to the innovative measures adopted. He stated that overloading, though permitted in 1980’s, was discarded subsequently as two well-known engineers, who retired as chairmen, Railway Board, pointed out the implications of increasing the axle load and the need to be studied scientifically.

An article co-authored by Amit Kumar Jain and Surbhi Jain (2008) brings about e-governance initiatives taken by the Railways in different areas like ticketing, administration and freight movement to increase operational efficiency of the Railways.

J. Thadamalla and A. Sonpal (2008) give a detailed account of how the turnaround happened in Railways and how the different initiatives taken by the Minister translated into higher revenue for the railways. The case study concludes that the turnaround was achieved through a strategy of playing on volume or economies of scale.

Raghuram G. and Niraja shukla, (2008) in their article ‘Turnaround of IR- Increasing the axle load’ mentioned that the earlier initiatives in axle loading were taken by the dynamic Chairman of the Railway Board, Mr. M.S. Gujral in the early 1980’s. But it was sustained on safety matter. Mr. Lalu materialized it and stated that one ton extra loading per wagon implies additional revenue of ₹ 5000 crores every year. The study observed the
perspectives of different departments highlighted during the discussion of increasing the axle load. The authors made a thorough analysis of capacity and weight of wagons, its impact and implications. The study concluded with some future priorities like realistic assessment of the actual cost increase due to increased fuel consumption, increased wagon track maintenance, increased investment in wagons, tracks and bridges instrumentation and also to study the ill-effects of increased breakdown etc.

1.6.3 Passenger Satisfaction

Panduranga Rao and B. Ramlal (1984) emphasized that the geographic, environmental, social, cultural, economical environment and quality of service like nature of vehicle, journey time, speed of the vehicle disturbance, comforts, terminal services, frequencies of trips are influenced by the passengers’ perception in travel behaviour. They also found that various qualitative factors like time and cost factors; frequency and reliability of service, comforts and convenience have a major role in making choice among available alternative modes.

T.R. Shanmughan (1987) has highlighted the behaviour of passengers and users of goods traffic in rail transport. He concluded that sufficient facilities are to be provided to the customers and commuters to maintain safety, security and punctuality.

Promila Sharma and Harpeet Duggal (1989), in their article, reported that most of the passengers are dissatisfied with the railway service like catering, cleanliness and enquiry service. Most of the complainants do not use the redressal service provided by the railway department, because they do not expect any concrete action from them.
Corinne Bret (1994), in her article about Japanese Trains, has outlined the services provided inside the trains by Japanese Railways. The information about the next station, connecting buses and trains, reminding of personal belongings and so on is made through public announcement in Japanese trains.

A study by D.V. Nalini devi (1996) analysed passenger amenities in trains and stations along with the recruitment, selection, training and performance appraisal of employees in South Central Railway. Most of the passengers prefer train service because of comfort in travelling, accessibility, security and low fare. It was found that passengers travelling in three-tier sleeper have a less comfortable journey when compared to First class passengers and sanitation, electrical fittings, and water facilities is less than the satisfaction level. Regarding punctuality, Superfast and Express trains seem to be more punctual than passenger trains. The study also revealed that the amount collected from ticketless travel is more than the cost of staff utilized for this purpose.

M. Joseph (2000) in his study about Customer satisfaction in Southern Railway, Madurai division has recommended improving the quality of food served by Southern Railway and frequent inspection is to be done not only by railway officers but also by Non- Governmental Organisations.

G. Jagannathan (2002) in his study suggested that if season ticket fares are introduced for long distance travel, it is an added attraction to customers and suggests that additional trains should also run during festival and peak season.
M. V. Rama Prasad (2002) has found that short distance travellers are to be provided with more general compartments and most of the passengers are of the opinion to improve the quality of the food served.

Comptroller and Auditor General (CAG) (2002) acknowledges that the provision of passenger amenities is an important objective of IR, both as a business ethic and as a social obligation. It evaluates the performance of services provided in terms of complaints against catering services. The need for more efficient operations and cost-effective use of resources for providing passenger amenities is studied here.

Southern Economist editorial article ‘Railway Budget 2003-2004’ has discussed safety performance of Railways and suggests that minimizing accidents is a collective responsibility of vehicle driver, government, pedestrian and road users. Identify and upgrade failure prone infrastructure and safety related staff and monitoring their performance is highly essential to minimize accidents.

Margareta Friman and Markus Fellesson, Sweden (2004) in their study ‘Service supply and customer satisfaction in public transportation- the quality paradox’, analyses the relationship between objective performance measures and three subjective satisfaction attributes along with overall satisfaction. Three attributes like frequency, seat availability and travel time are studied along with overall satisfaction. When frequency of transport is compared with overall satisfaction and vehicle km/inhabitant, both are found insignificant. When seat availability is compared with overall satisfaction, it is insignificant, but compared with place km/inhabitant it is found as significant. Similarly, when travel time and speed is compared, it is
significant, though the correlation is negative. Increase in the travel time decreases overall satisfaction.

Sumathy S (2005) has pointed out that Southern Railway has nearly 142 tourist centres and 175 Hindu festivals. It is suggested that to increase passenger revenue, more number of special coaches and trains and ticket counters should be provided during festive seasons.

Kumaravalli V (2006) has suggested that passengers inside the train compartments need information which will help the passenger to plan alighting at the destination beforehand. It is also suggested to provide bathing facilities in all express trains which would be more convenient to long distance travellers.

Samuel Paul, (2006) in his study, makes an assessment of the service quality of public services like drinking water, health care, education, road transportation and public distribution. The study focuses on the effectiveness of the delivery system with regard to access, extent to which the service is used by the people, the extent of reliability of the service and the user’s overall assessment of the system. The study finds that drinking water and health services score better on reliability, education and road transport not so. Regarding overall level of satisfaction, the services which require a high level of human interaction produce lower levels of satisfaction from the beneficiaries. The author recommends Public Private Partnership (PPP) and the pressure of competition which will force public providers to improve their services.

Sekaran P (2006) made a study of public complaints in Southern Railway, which reveals that the highest number of complaints has been about punctuality of trains. The author made certain suggestions to minimize delays
in running of trains to drivers, guards and station staff. The author also suggested forming a Complaint Research and Public Grievance Cell directly reporting to the Minister to be set up at the national level.

Chinmoy kumar (2006) in his article describes how the Railways have benefited immensely by adopting IT for providing better services to passengers. Railways are dedicated to make substantial investment in IT in response to rising passenger demands.

Geethika, Shefali Nandan (2006) identifies components of service quality of IR on platforms through an empirical exploratory study and a survey of passengers. The important service components identified are refreshment and behavioural factors.

Balaji Narasimhan (2007) has written an article ‘on the right track’ reflects the concern of Railways for providing better ticketing system for unreserved ticket passengers as they constitute ninety two per cent of the total railway passengers. It allows travellers to buy tickets from any station and not be restricted to the boarding station.

Raghuram G (2008) has attempted to study the issues relating to toilets in trains and to provide a framework for solutions. The study was based on a report by CAG in 2007 about the inadequacy and lack of hygienic toilets. He has suggested the introduction of automatically locked toilets when the train pulls to a station. Toilets of Shatabdi trains and other imported coaches are to be provided with modular toilets and fitted with discharge control devices that work only when the speed crosses 30 km ph. IR is experimenting three types of toilets namely modular, vacuum and chemical.

Reethi Agarwal (2008) in her study about public transportation and customer satisfaction – the case of IR, mentioned the importance of service
sector in the growing economy and significance of customer satisfaction in measuring the performance of companies. The purpose of the study was to identify the factors affecting customer satisfaction in IR. It also aims at studying the direction and magnitudes of effect of factors on customer satisfaction. Customer satisfaction was measured on 47 attributes covering amenities at the platform, in the station, in the train and also the employee behaviour. The study observed that though all variables are statistically significant and all the factors are positively related to customer satisfaction, the employee behaviour has the maximum effect on the overall satisfaction of the customer and availability of trains and tickets as the least factor affecting overall satisfaction.

According to Sangeetha Sahney (2010), E-ticketing is widely popularized due to advanced technology, consumer behaviour (both psychographic and demographic) and also of its user-friendliness and computer proficiency. It is concluded that techno-savvy people and those who want to avail the related tourism services go for e-ticketing.

### 1.6.4 Employees’ Satisfaction

Hop pock (1935) observed that employee satisfaction is the terminology used to describe whether employees are happy and contented by fulfilling their desires and needs at work. There are many factors which affect job satisfaction like, motivation, management style, organization culture, and employee involvement. It is frequently measured by organizations by using rating scales or Yes/No questions.

Blum & Naylor (1968) says job satisfaction is the result of various attitudes possessed by an employee. These are related to the job and are concerned
with wages, supervision, stability of employment, working conditions, opportunity for advancement, recognition of ability, proper settlement of grievances etc.

A study on employee attitude and job satisfaction by Saari and Judge (2004) found that job satisfaction appears to be related to other withdrawal behaviour including lateness, absenteeism, drug abuse, unionization and decision to retire.

Grimshaw T.B. (1964) observes that employers in India are investing considerable amount of money in staff training and are naturally anxious to know whether or not they are getting a fair return on their investments.

M. Gangadhara Rao (1978) has examined the personnel and union management relations with special reference to the independence period. The problems of railway employees are analysed in detail and concludes that the operational efficiency has increased over the period and the labour productivity has gone up on account of the introduction of incentive plans. He also emphasized the necessity for harmonious relation between the workers and the management.

Jain, Kamal kishore (1983) analyses the existing Training and Management Development Programme being conducted by various public sector steel units and Management Training Institute, Ranchi. According to him, training is highly useful to the employees and some are of the opinion that they go for training to escape from their job assignment.

Charles Lee (1989) suggests that superior and subordinate would understand what is expected in the job and poor performance appraisal will do more harm than good.

A.S. Ramanujam (2005) observes that the welfare measures in Railways are effective compared to other public sector undertakings.
G. Raghuram of IIM (Ahmadabad) and Narayan Rangaraj of IIT Bombay (2006) made a study based on a request from the Sixth Central Pay Commission to examine the issue of Performance Related Incentives (PRIs) in government employees. PRI is based on a premise that better performance can be achieved when pay is related to performance. They recommended PRI at the A and B cadre officer level between 15 to 30 per cent of the salary and for C &D cadre at 5 per cent of additional pay. Better working conditions at all levels, fairness and objectivity in staffing, work definition and assessment and a positive work atmosphere could only make PRI a success.

Tammana V. Ramayya, Vishnu Prasad Nagadevara and Shymal Roy (2006) have made a study on the impact of employee motivation on passenger satisfaction level - a case study in the state of Karnataka Road transport (KSRTC). The study observed that the working environment, compensation package and future prospects offered by the organization to the frontline staff would make a significant difference in their motivation levels and consequently the quality of service rendered to the passengers. Data with respect to comforts and convenience, schedule operation, crew behaviour, cost and other aspects of commuters are analysed and compared with the private operators. The working hour per day and minimum number of hours of work at a stretch is lower in KSRTC. Extent of cooperation from superior is also studied. It is concluded that the services provided by KSRTC is much superior to those provided by private operators. The better quality of service provided by KSRTC would be attributed to the organizational culture that enhances employee satisfaction. Thus the human resource policies of the organization have a dominant role in improving the quality of service as well as the satisfaction levels of passengers.
S. N. Mathur (2007) in his study ‘Greying of IR’ attempts to focus on the implicit debt which has been accumulating over the years on account of insufficient contribution made to the Pension fund by the Railways. It also suggests reforms to the pension scheme being currently operated by the Railways, to improve its financial position in the coming years. The author suggests that the ideal Pension Fund operates like a Provident Fund with investment made in designated securities. The efficacy of a pension scheme depends on its administrative costs, which is determined by the country’s per capita income and number of workers covered by the pension plan. He suggested an independent Pension Fund in which a contribution can be put and allowed to earn interest at prevailing market rates in approved securities. It requires approval from Central Government to segregate railway Pension Fund from the consolidated pension fund of India.

M. C. Murali (2008) made a study about the human element in train safety in IR. Southern Railway can be considered as a representative of IR for accidents and involvement of human element in its occurrence. The study concludes that new technology and automation could reduce dependence on human elements. Training should be given for reducing accidents due to human failures.

Vijay Pereira (2009) in his study “leadership next research study” observed that the transformational turnaround could not have been possible without its true assets, the employees. The study focused on human resource practices in IR, investigates changes in practices over a period of time and the role of human resource in turnaround strategies. He observed that IR is a self reliant and self-sufficient organization providing attractive employment, and having a formalized recruitment, selection, training and development at all levels. It is concluded that employees emoluments are periodically reviewed
by Central pay Commissions and are compensated for unusual working hours such as night duty allowance, running allowance, hill allowance etc. Soft relation between, staff and trade unions is maintained.

The above mentioned paragraphs have been an attempt to review the existing studies on turnaround in IR and World railways, passenger satisfaction and employee satisfaction by various scholars, experts, institutes and agencies. There is not a single comprehensive and intensive study touching upon the various aspects of financial performance, satisfaction level of passengers and employees in Southern Railway (SR). The present situation calls for a probe into the strategies in SR during the turnaround period and hence the study fills the gap. The study as a whole concentrates on the financial performance of SR and passenger perceptions on service quality dimensions and employees’ perception during the post turnaround period.

1.7 Rationale of the Study

IR, operating in the Indian subcontinent for the past 160 years, has turned out as a white elephant and was on the verge of bankruptcy in 2001. IR is a highly centralized organization and the strategies evolved for its turnaround and its effective implementation is unique among the public sector undertakings. IR is one of the largest employers and the commuters are scattered all over the country, with seventeen zones (including Calcutta Metro) and sixty eight divisions. Hence the study has national importance.

As public resources need to be efficiently utilised, the strategies for turnaround of public services have got greater importance. IR is particularly important as it is fully-owned by the Government of India and the need to get adequate return on its investment is in public interest. Though IR is one of
the largest public service organizations in the Indian economy, it has not been subjected to research on its turn around. The study fills this gap.

1.8 Context of Study

SR has been selected for the present study due to the following reasons:-

a) Though there is a cash surplus of ₹ 25000 crores and an operating ratio of 75 per cent in 2007-08 in IR, it is observed that SR has cash deficit and an operating ratio of more than 100.

b) The geographical and demographic features distinct from other zones.

c) The recent literature shows that most of the study reports concentrate only on IR financial performance. A Zone-wise study has not been made.

1.9 Research Boundaries

1. IR has seventeen zones and sixty eight divisions scattered along the length and breadth of the country, and in order to make the study practically possible, it is restricted to SR, which is a loss making zone since 1973. Of the six divisions of SR, two divisions are predominated with meter gauge, which are under gauge conversion. Hence the study relating to passenger satisfaction and employee perception is limited to four divisions.

2. The study is confined only to passengers of rail services and freight customers are outside the purview of the study.

3. The present study focuses only on the satisfaction level of employees who are directly involved in running of trains.
1.10 Objectives of the Study

The study concentrates on analyzing the turnaround initiatives in IR with special reference to SR. By addressing this research problem, the study aims to achieve the following specific objectives:-

1. To identify the strategies initiated by IR to achieve its turnaround and to trace out the reasons for turnaround.

2. To analyse the financial performance of SR during pre and post turnaround period.

3. To study the passenger satisfaction based on various service quality dimensions in SR.

4. To study the employees’ perceptions during post turnaround period in SR.

1.11 Hypotheses

To have a disciplined guidance to the enquiry, the following hypotheses are framed:

1) There is no significant difference in the financial performance of SR in terms of revenue earnings and expenditure during the pre and post turnaround period. (Passenger earnings (H1a), Goods earnings (H1b), Other coaching (H1c), Sundry earnings (H1d) and Working expenses (H1e).

2) There is no significant difference in the Operating ratio and Ratio of net revenue to capital during the pre and post turnaround period.

3) There is no significant difference in the perception of passengers on various service quality dimensions across four divisions.
4) There is no significant difference in the perception of passengers on various service quality dimensions across user demographics such as age (H4a), gender (H4b), and occupation (H4c).

5) There is no significant difference in the perception of passengers on various service quality dimensions on the basis of travel behaviour such as frequency of travel (H5a), type of train (H5b) and class of travel (H5c).

6) There is no significant difference in the satisfaction of employees belonging to four divisions in relation to the changing organizational environment, attitude of superiors, turnaround related factors and passenger amenities and attitude of passengers.

7) There is no significant difference in the satisfaction of employees across different departments in relation to the changing organizational environment, attitude of superiors, turnaround related factors and passenger amenities and attitude of passengers.

8) There is no significant difference in the satisfaction of employees in respect of organizational environment, attitude of superiors, turnaround related factors and passenger amenities and attitude of passengers among employees with different years of service.

1.12 Methodology

Based on extensive literature survey and expert opinion, variables relating to passenger service quality are identified and draft questionnaire was prepared. Then it was pilot tested for the assessment of properties of the measured items. As part of pilot study, 50 respondents were asked to express their opinion with regard to the service quality dimensions and their
complaints and grievances with a selected number of questions. From the responses received, the variables identified in relation to passenger satisfaction are cleanliness and ambience of stations and trains, price or value of tickets, amenities provided at stations, platforms and in trains, method of handling complaints, attitude of employees towards passengers and the overall satisfaction with the journey, which includes security and punctuality. The basic information relating to the service quality dimensions of SR have been collected from passengers of all the selected four divisions using pre-tested questionnaires having overall reliability 0.793.

Perceptions towards service quality dimensions and employees’ perception are measured on a five point scale with 5, 4 3, 2, 1 for positive questions and 1, 2, 3, 4, 5 for negative questions corresponding to highly satisfied (excellent), satisfied (good) etc. For ranking questions, respondents were asked to rank their preference from 1 to 5 and scores are assigned as 5,4,3,2 and 1. The scores are summated, averaged and compared across four divisions for further analysis.

Out of the total 1200 questionnaires (300 for each division) distributed to passengers, 802 were returned, which represented a response rate of 66.83 per cent of the original sample. However, 52 questionnaires were discarded because some are partially answered; blank or respondents had put same answers for all the questions. Therefore, only 750 questionnaires were used for further data analysis and the final response rate was 62.5 per cent. While distributing questionnaires in trains, passengers were found actively participating in expressing their opinion as they have rarely experienced it.
Similarly, out of the 400 questionnaires (100 for each division) distributed to employees of the selected four divisions, 236 were returned, which represented a response rate of 59 per cent of the sample. However, 36 questionnaires were discarded because they were returned blank. Therefore, 200 questionnaires were used for further data analysis and final response rate was 50 per cent. While distributing questionnaires, employees belonging to Commercial department were found reluctant to express their opinion, fearing departmental restrictions.

The passenger survey relates to the profile of respondents, travel behaviour, passengers’ opinion on fare and other charges, ticketing and facilities offered by Railways at the counter, stations and in trains, employees’ behaviour, handling of complaints and also with regard to punctuality of trains. Travel behaviour includes frequency of travel, type of train and class of travel. Employees’ perception is measured in respect of organization environment, attitude of superiors, turnaround related factors and passenger amenities and their attitude towards employees.

1.12.1. Sources of Data

The required data relevant to the study are collected from both primary and secondary sources in order to understand the multi-dimensional aspects. Secondary data are obtained from records of Railway Board, Zonal and Divisional headquarters, RBI bulletin, CAG Report, Railway Budget, appropriation accounts, audit reports, Railway Gazette, Railway Year Book, Salient features of SR, Annual publications, Pocket Book of Southern Railway, various publications of Railway departments like IR Magazine, Safety Magazines, annual reports and accounts, study reports by the Railway Board, RDSO. (Research Design and Standards Organization), other books
and journals, newspapers and magazines, seminar papers and other research works. Non-participant observation was conducted at selected railway stations and trains to evaluate qualitative aspects. Interviews of frontline staff were also made to understand their operational constraints. The analysis and interpretations are done by suitably incorporating the views expressed by these groups.

1.12.2. Sampling Plan

The researcher has adopted Convenience sampling. Sampling involves the selection of divisions for the primary data relating to passenger satisfaction and employee satisfaction. From the statistics available, it is found that the state of Tamil Nadu has the longest route kilometer and Kerala comes second. In Tamil Nadu there are four divisions and Kerala has two divisions. However, of the four divisions in Tamil Nadu, Madurai and Trichi divisions are dominated by meter gauge and many routes are under gauge conversion process. In addition to this, meter gauge travel and broad gauge travel are not comparable in the context of satisfaction of passengers and employees. Therefore, these two divisions are not considered for the study. With the result, Palakkad and Thiruvananthapuram from Kerala and Chennai and Salem divisions from Tamil Nadu have been taken for the present study.

There are approximately 68 stations in each division. From the selected four divisions, five junction stations viz. Thiruvananthapuram Central, Ernakulam, Salem, Palakad and Chennai Central and different types of trains were personally visited with a structured questionnaire to elicit the views of passengers and employees. In terms of passenger perception, since the population is infinite and unknown, the researcher adopted convenience sampling. For the purpose of collection of primary data from employees, the
researcher has personally identified and administered among employees who are directly involved in the operation of trains like, loco pilots, guards, train ticket examiners, booking or reservation clerks, ticket counter clerks, and station masters from the selected four divisions.

1.12.3 Statistical Methods and Techniques

Data collected from two survey questionnaires were analyzed with the help of SPSS. To simplify complexities, the data collected have been presented in the form of tables. Ratios and Percentages are also used to explain the growth of revenue and working expenses, when financial performance is compared during pre and post turnaround period. The statistical tools applied are mean, standard deviation, t-test, Chi-square and one-way ANOVA. One-way ANOVA is applied to examine whether there is any significant difference between passenger perceptions on service quality dimensions with regard to different demographic and travel behaviour variables. Post-hoc analysis is done to find the difference among the significant groups. The pertinent issue is to identify the importance of various service dimensions in determining customer satisfaction. With this end in view, Confirmatory Factor Analysis (CFA) is done.

Similarly, one-way ANOVA is used to examine whether there is significant difference in the perception of employees across divisions, departments and on the basis of length of service in respect of organization environment, attitude of superiors, turnaround related factors and passenger amenities and co-operation from passengers. Post-hoc analysis is done to find the difference among the significant groups.
1.13 Period of the Study

The present study covers a period of ten years commencing from 2000-01 to 2009-10 i.e. five years before and five years after the commencement of turnaround. The financial performance is assessed on the basis of data from records and reports during the period 2000-01 to 2009-10. Primary data from passengers and employees were collected during August to December 2011.

1.14 Operational Terms

1. **Capital Expenditure** - Pertains to acquisition of assets.
2. **Capital Fund** - instituted w.e.f.1992-93 and includes expenditure on inventories and acquisition of assets under specified heads.
3. **Capital Outlay** - Expenditure of capital nature incurred during the period to increase the concrete assets.
4. **Capital-at-charge** - Book value of capital assets of railway purchased from capital obtained from general revenues.
5. **Demurrage** - Penalty charges for not removing parcels from railway premises within the allowed time.
6. **Depreciation Reserve Fund** - Expenditure on replacements including the cost of improvement.
7. **Development Fund** - used for amenities and staff welfare costing more than ₹ 1 lakh and for safety works.
8. **Express fare** - Fare in the second class of express trains
9. **Gross traffic earnings** - True earnings in an accounting period irrespective of whether amounts have been realized or not.
11. **Marshalling expenses** - Marshalling expenses include expenses incurred for assembling of wagons.

12. **Net revenue** - Gross traffic receipts minus total working expenses.

13. **Net ton km** - Pay load of one ton carried over one km and it represents revenue.

14. **Non-revenue traffic** - Traffic conveyed free for the working of railways or for disasters and natural calamities.

15. **Operating ratio** - Ratio of working expenses to Gross traffic earnings.


17. **Ordinary fare** - Fare in the second class of ordinary passenger trains.

18. **Originating and carried earnings** - Originating earnings represent earnings booked from each gauge. Carried earnings mean earnings received from other Railways, including originating.

19. **Passenger km** - Cost of carrying one passenger over one km.

20. **Pension fund** - Meets with the various pension and other retirement benefits to pensionable employees.

21. **Pre and post-turnaround period** - Pre-period means period of five years before the year of turnaround 2005 (2000-01 to 2004-05) and post-period means five years after 2005 (2005-06 to 2009-10).

22. **Railways** - Mean Indian Railways and Railway mean Southern Railway.

23. **Railway Safety Fund** - For converting unmanned level crossings into manned level crossings and construction of ROB/RUBs.

24. **Revenue expenditure** - Comprises of working expenses, miscellaneous payments and dividends payable to general revenue.

25. **Rolling stock** - Engines, wagons and coaches which roll on the track.
26. **Route kilometre** - Distance between two points on the railway, irrespective of number of lines.

27. **Second express** - Second class in express trains.

28. **Second ordinary** - Second class in ordinary passenger trains.

29. **Shunting** - Operation of moving a vehicle or rake inside a station or yard, which are not considered as train movements.

30. **Special Railway Safety Fund** - created w.e.f 1-1-2001 for six years to meet the expenditure incurred on replacement of over-aged assets.

31. **Suspense account** - They are operated in Railway accounts to facilitate proper accounting of various types of transactions which cannot be booked immediately under the final heads for want of allocation or other causes and also to bring it to account for the accounting period. It also represents unrealized earnings and liabilities not discharged in an accounting period.

32. **Total working expenses** - Working expenses inclusive of suspense and appropriations.

33. **Traffic suspense** - It represents unrealized earnings in the gap in between the time they are accrued till the time they are realized. It constitutes station outstanding, accounts office balance sheet outstanding and cash in hand.

34. **Transhipment Expenses** - Transhipment expenses are incurred when movement of a loaded wagon involves more than one gauge.

35. **Wagon turnaround** - Time interval between two successive loadings of wagons.

36. **Wharfage charges** - Penalty for use of railway storage space.
37. **Working expenses**- Expenditure in connection with administration, operation, maintenance and repair of lines open for traffic. It excludes suspense and includes appropriations.

### 1.15 Limitations of the Study

1. As IR is owned by the Central government, there is lot of hindrances in access to data and collecting up to date accounting data. The annual accounts will be published only after one year and therefore, the accounting information for 2009-10 is available at the end of the year 2011.

2. Owing to the inherent accounting system, which is a combination of government accounting and commercial accounting, transparency in accounting information is either lacking or very limited. The present system of accounting does not depict a true and a fair view of income & expenditure and balance sheet items.

3. Railways have different accounting documents and the reliability of each document is a major factor, as the figures in different documents differ.

4. Most of the secondary data are extracted from the final accounts of Railways. Financial statements are not free from limitations and to that extent the present study is likely to be affected by the drawbacks of secondary data.

5. The published accounts do not give any break-up of income and expenditure of various divisions and therefore a division-wise analysis of financial performance could not be conducted.

6. SR has unique characteristics and it cannot be generalized for other zones.
7. Employees have lot of apprehensions in furnishing information either due to fear or favour.

8. As the analysis is based on statistical tools, the study is subject to the limitations associated with statistical tools.

9. The survey is subject to possibility of response errors and is subject to sampling error. However, the margin of error is not likely to be so large as to vitiate the findings.

10. Amenities may vary from division to division and vary from station to station.

11. Human behaviour is too complex, varied and changing. Opinion may change from season to season and from person to person. This may cause bias and affect research findings and conclusions to a certain extent.

12. Since the customers’ tastes, preference and requirements are ever changing, it is difficult to define, quantify and measure the quality in service organization.

With these constraints and limitations, the study plans to do something concrete to the society and helpful to the organization.

**1.16 Chapter Scheme**

**Chapter I** Introduces the issue by giving history and origin of railway in the world, IR and SR, review of literature relating to turnaround, service quality and employees’ satisfaction, statement of the problem, rationale and context of the study, scope and objectives of the study, hypotheses, methodology and selection of sample size, data collection, tools for analysis, period of study and limitation of the study.
Chapter II gives a glimpse on IR explaining its organization structure, services, production units and public undertakings under IR.

Chapter III explains the theoretical framework and strategies taken by IR to achieve turnaround and to identify the factors contributed to turnaround.

Chapter IV presents the financial performance of SR during the pre and post turnaround periods.

Chapter V details the passengers’ perception on various service quality dimensions in SR.

Chapter VI explains the perception of employees towards organisational environment, attitude of superiors, passenger amenities and turnaround related factors.

Chapter VII presents findings, conclusions and suggestions of the study. It also gives directions for future research.