CHAPTER III
AN OVERVIEW ON RAILWAY SERVICE MARKET IN INDIA

The chapter contains detailed discussion on nature of railway service offered in India, marketing practices and future scope for railway services.

3.1 Overview of the Railway Services in India

Indian Railways (IR) has 114,500 km of total track over a route of 65,000 km and 7,500 stations. It is the world's fourth largest railway network after those of United States, Russia and China. The railways carry over 30 million passengers and 2.8 million tons of freight daily. It is the world's 2nd largest commercial or utility employer, by number of employees, with more than 1.36 million employees. Indian Railways (IR) operates long distance and suburban rail systems on a multi-gauge network of broad, meter and narrow gauges. It also owns locomotive and coach production facilities. As for rolling stock, IR owns over 240,000 (freight) wagons, 60,000 coaches and 9,000 locomotives. Railways were first introduced to India in 1853. By 1947, the year of India's independence, there were forty-two rail systems. In 1951 the systems were nationalized as one unit, the Indian Railways (IR), became one of the largest networks in the world. Today also it exists to be one of the largest networks in the world.

3.2 Services Offered (Product Nature)

The Indian Railways (IR) offers both passenger and freight services. A brief discussion on the service offered by the Indian Railways (IR) is presented below.

i. Passenger Services

Indian Railways (IR) transports 30 million passengers daily across India. Indian Railways (IR) generates 30per cent of the revenue through passenger services. Sikkim and Meghalaya are the only states not connected by rail. A standard passenger train consists of eighteen coaches, but popular trains can
have 26 coaches or even more. Most regular trains have coaches connected through vestibules. Provision for purchasing tickets via online mode (website of Indian Railway (IR)) and offline mode- purchasing tickets from the ticket counter at each station is well set up. Reservation against cancellation service is a provision for shared berth in case the travel ticket is not confirmed. All current passenger service is provided using electric or diesel locomotives.

Several long trains are composed of two to three classes of travel, such as 1st and 2nd classes, which have different pricing systems for various amenities. The 1st Class refers to coaches with separate cabins, coaches can or cannot be air-conditioned. 3-tier non-AC coaches and 2nd class seating coaches, which are highly popular among passengers going on shorter journeys. In air-conditioned sleeper classes passengers are provided with sheets, pillows and blankets. Meals and refreshments are provided, to all the passengers of reserved classes, either through the on-board pantry service or through special catering arrangements in trains without pantry car. Unreserved coach passengers have options of purchasing from licensed vendors either on board or on the platform of intermediate stops. The amenities depend on the popularity and length of the route. Lavatories are communal and feature both the Indian style as well as the Western style.

ii. Freight Services

Indian Railways (IR) carries a huge variety of goods such as mineral ores, fertilizers, iron & steel, petrochemicals, agricultural products, etc. 70 percent of revenue comes from freight services. Freight is a profit making business segment of Indian Railways (IR) and is the backbone of railway revenues. But, recently it is seen that the market share of Indian Railways (IR) has been consistently shrinking and railways is losing out to roadway transportation. Achievement of projected freight targets largely depended on the manner in which the Indian Railways (IR) reshaped its policies and strategies not only to regain the lost share in freight traffic but also to provide value for money to customers in terms of better facilities and improved services.
The recent growth in freight loading due to more intensive asset utilization and adoption of market responsive strategies has brought into focus its long term sustainability. The average annual growth of 8.1 per cent in freight loading corresponds to the average annual growth of 8-9 per cent in Gross Domestic Product during the last five years, the incentive schemes at best contributed to retention of the market share. The marketing strategy needs to be restructured for improving the market share of Indian Railways (IR). There was an increase in the net revenue including revenue from passenger as well as freight from 2003-04 to 2007-08. But, after 2008, the net revenue of the Indian Railways had been decreasing with little improvement in 2010-11.

3.3 Comparison of Indian Railways (IR) with Global Benchmarks

Indian Railways (IR), like other railways in the world, and particularly the major railways, has been facing the problem of declining market share in comparison with other transportation modes. With growing traffic volumes, the issues generally faced by many railways have been the need to provide new types of services in freight and passenger segments, augmentation of the network, provision of higher capacity/high speed rolling stock, reduction of unit cost of transportation and provision of better quality service. While critically assessing Indian Railways’ (IR) performance and considering the options for the future, a comparison with global benchmarks would indicate the ground that the Indian Railways (IR) has to cover.

A comparison of the essential features of important world railways including those that carry more passenger and freight traffic than IR, is given in the two tables below. The figures of efficiency parameters in the second table are derived figures. In terms of route length, IR is fourth largest in the world after US Railroads and Russian and Chinese Railways. As regards freight traffic, again it is fourth but substantially behind these three railway systems. In passenger traffic, even though Japan carries more passengers, Indian Railways (IR) is the highest in terms of passenger kilometers.
**TABLE: 3.1**

**COMPARISON OF INDIAN RAILWAYS WITH WORLD RAILWAYS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Network length (kms)</th>
<th>Number of Employees</th>
<th>Passengers carried (millions)</th>
<th>Passengers kms (millions)</th>
<th>Freight Tonne carried (millions)</th>
<th>Tonne kms (millions)</th>
<th>No. of Locomotives</th>
<th>No. of Coaches</th>
<th>No. of Wagon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>France</td>
<td>29488</td>
<td>166000</td>
<td>1097</td>
<td>83299</td>
<td>106</td>
<td>42313</td>
<td>4289</td>
<td>15973</td>
<td>33238</td>
</tr>
<tr>
<td>2</td>
<td>Germany</td>
<td>33807</td>
<td>231000</td>
<td>1835</td>
<td>72414</td>
<td>273</td>
<td>91013</td>
<td>4128</td>
<td>17537</td>
<td>95595</td>
</tr>
<tr>
<td>3</td>
<td>Russia</td>
<td>84418</td>
<td>1128000</td>
<td>1280</td>
<td>174311</td>
<td>1344</td>
<td>2090337</td>
<td>12063</td>
<td>30958</td>
<td>566802</td>
</tr>
<tr>
<td>4</td>
<td>USA**</td>
<td>226706</td>
<td>187000</td>
<td>26</td>
<td>9059</td>
<td>1775</td>
<td>2820061</td>
<td>23990</td>
<td>1186</td>
<td>475416</td>
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<tr>
<td>5</td>
<td>Canada</td>
<td>57042</td>
<td>34000</td>
<td>4</td>
<td>1451</td>
<td>313</td>
<td>353227</td>
<td>2947</td>
<td>595</td>
<td>97836</td>
</tr>
<tr>
<td>6</td>
<td>South Africa</td>
<td>24887</td>
<td>36000</td>
<td>533</td>
<td>14856</td>
<td>181</td>
<td>105813</td>
<td>3301</td>
<td>1723</td>
<td>112417</td>
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<tr>
<td>7</td>
<td>Australia</td>
<td>9659</td>
<td>13000</td>
<td>54</td>
<td>1309</td>
<td>177</td>
<td>46036</td>
<td>509</td>
<td>663</td>
<td>10889</td>
</tr>
<tr>
<td>8</td>
<td>India</td>
<td>63327</td>
<td>140000</td>
<td>6219</td>
<td>694764</td>
<td>728</td>
<td>180993</td>
<td>8110</td>
<td>43124</td>
<td>207719</td>
</tr>
<tr>
<td>9</td>
<td>China</td>
<td>63637</td>
<td>205000</td>
<td>1287</td>
<td>689618</td>
<td>2624</td>
<td>2211246</td>
<td>17222</td>
<td>42471</td>
<td>571078</td>
</tr>
<tr>
<td>10</td>
<td>Japan</td>
<td>20050</td>
<td>132000</td>
<td>8907</td>
<td>252579</td>
<td>36</td>
<td>23145</td>
<td>1170</td>
<td>25224</td>
<td>9067</td>
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</table>


**TABLE: 3.2**

**WORLD RAILWAYS EFFICIENCY PARAMETERS**

<table>
<thead>
<tr>
<th>Country</th>
<th>Freight Lead (km)</th>
<th>Passenger Lead (km)</th>
<th>NTKM/ Employee (million)</th>
<th>PKM/ Employee (million)</th>
<th>(NTKM+PKM)/ Employee (million)</th>
<th>NTKM/ route length (millions)</th>
<th>PKM/ route length (millions)</th>
<th>(NTKM+PKM)/ route length (millions)</th>
<th>NTKM/ wagon/day (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>400</td>
<td>76</td>
<td>0.26</td>
<td>0.5</td>
<td>0.76</td>
<td>1.44</td>
<td>2.82</td>
<td>4.26</td>
<td>3498</td>
</tr>
<tr>
<td>Germany</td>
<td>333</td>
<td>41</td>
<td>0.39</td>
<td>0.32</td>
<td>0.72</td>
<td>2.68</td>
<td>2.20</td>
<td>4.89</td>
<td>2608</td>
</tr>
<tr>
<td>Russia</td>
<td>1555</td>
<td>135</td>
<td>1.85</td>
<td>0.15</td>
<td>2.01</td>
<td>2.84</td>
<td>2.06</td>
<td>26.90</td>
<td>10104</td>
</tr>
<tr>
<td>USA</td>
<td>1589</td>
<td>348</td>
<td>15.08</td>
<td>0.05</td>
<td>15.13</td>
<td>12.44</td>
<td>0.04</td>
<td>12.48</td>
<td>16251</td>
</tr>
<tr>
<td>Canada</td>
<td>1129</td>
<td>363</td>
<td>10.39</td>
<td>0.04</td>
<td>10.43</td>
<td>6.19</td>
<td>0.03</td>
<td>6.22</td>
<td>9892</td>
</tr>
<tr>
<td>South Africa</td>
<td>600</td>
<td>28</td>
<td>3.01</td>
<td>0.41</td>
<td>3.43</td>
<td>4.43</td>
<td>0.61</td>
<td>5.04</td>
<td>2645</td>
</tr>
<tr>
<td>Australia</td>
<td>260</td>
<td>24</td>
<td>3.54</td>
<td>0.10</td>
<td>3.64</td>
<td>4.78</td>
<td>0.14</td>
<td>4.91</td>
<td>11583</td>
</tr>
<tr>
<td>India</td>
<td>661</td>
<td>112</td>
<td>0.34</td>
<td>0.49</td>
<td>0.84</td>
<td>7.60</td>
<td>10.97</td>
<td>18.57</td>
<td>6344</td>
</tr>
<tr>
<td>China</td>
<td>843</td>
<td>356</td>
<td>1.07</td>
<td>0.33</td>
<td>1.40</td>
<td>3.75</td>
<td>10.84</td>
<td>45.58</td>
<td>10608</td>
</tr>
<tr>
<td>Japan</td>
<td>643</td>
<td>28</td>
<td>0.18</td>
<td>0.19</td>
<td>2.09</td>
<td>1.15</td>
<td>12.60</td>
<td>13.75</td>
<td>6994</td>
</tr>
</tbody>
</table>


The efficiency and productivity figures reveal that the leads in freight are substantially higher on US Railroads, Russian Railways and Canadian Railways compared to IR. The average lead on Chinese Railways is 843 against IR’s 661. The NTKM (Net Tonnes Kilo Meter)/route kilometer of Russian, US and Chinese railways are much higher than that of IR’s. Passenger leads are much higher on Russian Railways, US Railroads and Chinese Railways. The PKMs (Passenger Kilometer)/route kilometer of IR compares well with the other railways like the Chinese and Japanese Railways.
The productivity figures of NTKM/employee are much higher in case of US Railroads, Canadian Railways, South African and Australian Railways, which carry heavy-haul traffic and have much less number of employees. The figures of Chinese Railways and Russian Railways make a better comparison with IR's performance as they have comparably high staff strengths (Russian Railways – 11.28 lakh, Chinese Railways – 20.67 lakh, Indian Railways (IR) – 13.95 lakh). IR should aim to reach the NTKM productivity figures of these two Railways. IR's productivity figures of PKM/employee are second only to Japan which, however, has very less number of employees. Compared to Railways like Chinese Railway and Russian Railways, IR's figures are much higher. NTKM/wagon day figures of IR are much lesser than that of US Railroads, Russian Railways, Canadian Railway, Australian Railways and Chinese Railways. IR should aim to achieve the figures of Russian and Chinese Railways. An analysis of the comparative figures reveals that in respect of route kilometers, number of employees and freight traffic, IR should aim to achieve the figures of Russian Railways (84,158 kms, 11.28 lakh employees and 1344 million tonnes). For passenger traffic, IR's figures are not strictly comparable since it does not have high speed passenger services as in Japan, China and the European railways.

3.4 Railway Service Market

The fact that railways, worldwide, are being exposed to an increasing intensity of competition from other transport modes, notably from road transport, reinforces the need for railway organizations to implement systematic marketing techniques. Railways are a service industry. Hence the railway employees responsible for delivery of service are conspicuous to users and indeed are directly accountable to users for service quality. In this sense, they differ for example from manufacturing industries, where those responsible for creation of the product are usually not visible to consumers and where there is a clear distinction between production and marketing activities. For railways, as with most service industries, the production and marketing of the product
(which in this case is actually a service, or services) are practically inseparable. Inevitably, a much higher proportion of the workforce in service industries will be engaged in what might be termed “marketing related activities”, than will be the case in manufacturing industries. The marketing management function in railway organizations is therefore likely to have a primary role of leading the planning, mobilization and application of the organization’s resources — human, physical and financial — for the achievement of corporate goals.

Nevertheless, marketing in the railway environment will have the same essential focus on the twin key issues of customer satisfaction and profitability as has marketing in any other environment. Thus, the main aim of marketing in any environment will be to reconcile the needs of customers for a minimum quality and quantity of product or service with the need for the producer or service provider for profit. This does not mean, however, that it will be in the best interests of the organization to satisfy the needs of all customers, all of the time. There will inevitably be some customers whose business will not be profitable for the organization.

The role of marketing in such circumstances will be to determine and implement measures to improve the net worth of that business to the organization, and failing this, to implement a plan for withdrawal from the business. It should be noted that such an approach contrasts with the still popular misconception that marketing is all about sales maximization. While a sales maximizing strategy usually leads to increased revenue, it could also mean reduced profit for the organization. Thus, marketing is not always about sales maximization; it is, however, always about profit maximization, or loss minimization, as the case may be. Taking into account the special characteristics of railways, “marketing” in a railway environment can be defined as: “A method and process for planning, mobilizing and applying the resources of the railway in order to satisfy customer demand and to realize a profit for the railway”.
Service marketing environment of Indian Railways (IR) can be scanned by considering six major environmental forces, like demographic, economic, socio-cultural, natural, technological and political legal. Demographic environment consists of the age mix of population, literacy and their education level. Economic environment consists of income distribution of different people. The rich grew by 400 per cent in urban areas and 200 per cent in rural areas. Socio-cultural environment consists of influence of religion, languages and customers that shapes the values and attitudes of customer preferences, habits and behavior.

3.5 Passenger Segmentation

Railway’s customers can be segmented into broad market or business groups, such as

- Commuters
- Medium-Long Distance Passengers
- Freight Customers
- Parcels and Express Freight Customers
- Commercial Property Lessors (Leasing)
- Others (e.g. advertisers using railway property)

A notable feature of the railway industry is its multi-product character: there are various types of passenger railway output (long distance, urban, suburban, non-urban, high speed, etc.). With respect to the passenger movement there are two types of services – the sub-urban and the non-suburban. The non-suburban trains include the long distance and medium distance mail express trains, while the sub-urban trains are characterised by short distance travel and accommodate more number of passengers. In passenger services, trains are classified by their average speed. A faster train has fewer stops ("halts") than a slower one and usually caters to long-distance travel.
## EXHIBIT: 3.1
### TRAINS CLASSIFIED BY THEIR AVERAGE SPEED

<table>
<thead>
<tr>
<th>Rank</th>
<th>Train</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Duronto Express</td>
<td>These are the non-stop (except for operational stops) point to point rail services introduced for the first time in 2009. They connect the metros and major state capitals of India and are faster than Rajdhani Express. They provide first AC, two-tier AC and three-tier AC accommodation. Some of them provide Sleeper Class accommodation.</td>
</tr>
<tr>
<td>2.</td>
<td>Rajdhani Express</td>
<td>These are air-conditioned trains linking major cities to New Delhi. They have high priority and are one of the fastest trains in India, travelling at about 130 km/h (82 mph). They have only a few stops.</td>
</tr>
<tr>
<td>3.</td>
<td>Shatabdi Express</td>
<td>The Shatabdi trains are air-conditioned intercity trains for travel during day. They have seats and executive class seats. Some of them 3-tier AC berths. They are the fastest trains in India, travelling at about 140 km/h.</td>
</tr>
<tr>
<td>4.</td>
<td>Garib Rath</td>
<td>Air-conditioned no-frills trains with seats and 3-tier Economy AC berths. The maximum speed is 130 km/h.</td>
</tr>
<tr>
<td>5.</td>
<td>Jan Shatabdi Express</td>
<td>Jan Shatabdi Express are a more affordable variety of the Shatabdi Express, which have both AC and non-AC classes. The maximum speed is 130 km/h.</td>
</tr>
<tr>
<td>6.</td>
<td>Superfast Express/Mail</td>
<td>These are trains that have an average speed greater than 55 km/h (34 mph). Tickets for these trains have an additional superfast surcharge.</td>
</tr>
<tr>
<td>7.</td>
<td>Express</td>
<td>These are the most common kind of trains in India. They have more stops than their super-fast counterparts, but they stop only at relatively important intermediate stations.</td>
</tr>
<tr>
<td>8.</td>
<td>Passenger and Fast Passenger</td>
<td>These are slow trains that stop at most stations along the route and are the cheapest trains. The trains generally have unreserved seating accommodation but some night trains have sleeper and 3-tier AC compartments.</td>
</tr>
<tr>
<td>9.</td>
<td>Suburban Trains</td>
<td>These trains operate in the urban areas of Mumbai, Delhi, Kolkata, Chennai, Hyderabad, Pune and between Kanpur &amp; Lucknow, usually stop at all stations and have unreserved seating accommodation.</td>
</tr>
<tr>
<td>10.</td>
<td>Metro and Monorails</td>
<td>These trains are designed for city transport in metro cities of India.</td>
</tr>
</tbody>
</table>


Indian Railways (IR) has several classes of travel with or without air conditioning. A train may have just one or many classes of travel. Slow passenger trains have only unreserved seating class whereas Rajdhani, Duronto and Shatabdi trains have only air-conditioned classes. The fares for all classes are different with unreserved seating class being the cheapest. The fare of Rajdhani, Duronto and Shatabdi trains include food served in the train but the fare for other trains does not include food that has to be bought separately. In
long-distance trains a pantry car is usually included and food is served at the berth or seats itself. Luxury trains such as Palace on Wheels have separate dining cars but these trains cost as much as or more than a five-star hotel room.

A standard passenger rake generally has four unreserved (also called "general") compartments, two at the front and two at the end, of which one may be exclusively for ladies. The exact number of other coaches varies according to the demand and the route. A luggage compartment can also exist at the front or the back. In some mail trains a separate mail coach is attached. Lavatories are communal and feature both the Indian style as well as the Western style. The following table lists the classes in operation. A train may not have all these classes.
EXHIBIT: 3.2
CLASSES IN OPERATION IN INDIAN TRAINS

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td><strong>First class AC</strong>: This is the most expensive class, where the fares are almost at par with air fare. There are eight cabins (including two cupo) in the full AC First Class coach and three cabins (including one coupe) in the half AC First Class coach. The coach has an attendant to help the passengers. Bedding is included with the fare in IR. This air conditioned coach is present only on popular routes and can carry 18 passengers (full coach) or 10 passengers (half coach). The sleeper berths are extremely wide and spacious. The coaches are carpeted, have sleeping accommodation and have privacy features like personal cupo. This class is available on broad gauge and metre gauge trains.</td>
</tr>
<tr>
<td>2A</td>
<td><strong>AC two tier</strong>: These air-conditioned coaches have sleeping berths across eight bays. Berths are usually arranged in two tiers in bays of six, four across the width of the coach and two berths longways on the other side of the corridor, with curtains along the gangways or corridors. Bedding is included with the fare. A broad gauge coach can carry 48 passengers (full coach) or 20 passengers (half coach). This class is available on broad gauge and metre gauge trains.</td>
</tr>
<tr>
<td>FC</td>
<td><strong>First class</strong>: Same as 1AC but without air conditioning. No bedding is available in this class. The berths are wide and spacious. There is a coach attendant to help the passengers. This class has been phased out on most of the trains and is rare to find. However, narrow gauge trains to hill stations have this class.</td>
</tr>
<tr>
<td>3A</td>
<td><strong>AC three tier</strong>: Air conditioned coaches with 64 sleeping berths. Berths are usually arranged as in 2AC but with three tiers across the width and two longways as before giving eight bays of eight. They are slightly less well-appointed, usually no reading lights or curtained off gangways. Bedding is included with fare. It carries 64 passengers in broad gauge. This class is available only on broad gauge.</td>
</tr>
<tr>
<td>3E</td>
<td><strong>AC three tier (Economy)</strong>: Air conditioned coaches with sleeping berths, present in Garib Rath Trains. Berths are usually arranged as in 3AC but with three tiers across the width and three longways. They are slightly less well-appointed, usually no reading lights or curtained off gangways. Bedding is not included with fare.</td>
</tr>
<tr>
<td>CC</td>
<td><strong>AC chair car</strong>: An air-conditioned seater coach with a total of five seats in a row used for day travel between cities.</td>
</tr>
<tr>
<td>EC</td>
<td><strong>Executive class chair car</strong>: An air-conditioned coach with large spacious seats and legroom. It has a total of four seats in a row used for day travel between cities. This class of travel is only available on Shatabdi Express trains.</td>
</tr>
<tr>
<td>SL</td>
<td><strong>Sleeper class</strong>: The sleeper class is the most common class on IR, and usually ten or more coaches could be attached. These are regular sleeping coaches with three berths vertically stacked. In broad gauge, it carries 72 passengers per coach.</td>
</tr>
<tr>
<td>2S</td>
<td><strong>Seater class</strong>: same as AC Chair car, but with bench style seats and without the air conditioning. These may be reserved in advance or may be unreserved.</td>
</tr>
<tr>
<td>UR</td>
<td><strong>Unreserved</strong>: The cheapest accommodation. The seats are usually made up of pressed wood in older coaches but cushioned seats are found in new coaches. These coaches are usually overcrowded and a seat is not guaranteed. Tickets are issued in advance for a minimum journey of more than 24 hours. Tickets issued are valid on any train on the same route if booked within 24 hours of buying the ticket.</td>
</tr>
</tbody>
</table>


At the rear of the train, there is a special compartment known as the guard’s cabin. It is fitted with a transceiver (A transceiver is a device comprising
both a transmitter and a receiver which are combined and share common circuitry or a single housing) and is where the guard usually gives the all clear signal before the train departs.

3.6 Service Utilisation Decision of the Passengers

Consumer purchase decision (Service Utilisation Decision) can be divided into three stages that are Pre-purchase stage, service encounter stage and Post encounter stage. Pre-purchase stage involves recognition of need, Information search, and evaluation of alternatives. Service encounter stage is the stage where customer gets the experience of service. Post encounter stage includes evaluation of service performance and comparing it with the expectation.

i. Pre Purchase Stage

First the need for travel in recognized by the consumer. Then destination is decided which they want to travel. Sometimes, destination and need to travel are recognized simultaneously. After deciding the destination, passengers searches for different modes of travelling. They decide whether prefer to travel by bus, railway or airways. All the modes of travelling are evaluated depending on time of journey, fair, purpose of travelling, availability of seats etc. Based on evaluation, mode of travelling is selected.

ii. Service Encounter Stage

If customer decides to travel with railway, they need to make a reservation. Reservation can be done through online websites or booking counters. This decision is based on the past experience of the customer. If there were difficulties in past in making online reservation, they would make reservation from booking counter and vice versa. If the passengers prefer to book the ticket from the stations, then they have to travel railway station. Customer experience starts as soon as they enter the railway station. Customer experience depends on the Cleanliness of station, condition of reservation booth, Catering services and nature of other services rendered to them.
iii. Post Encounter Stage

After travelling customer compares the experience with his expectation and is either satisfied or dissatisfied. Passengers share their experience with friends and family members that affect their decision to travel by railway in future. Passengers’ future decision will be based on their experience in both pre purchase stage as well as service encounter stage. Word of mouth marketing comes out through the experience of the service which is an effective marketing.
**EXHIBIT: 3.3**  
**RAILWAY PASSENGER SERVICE BLUEPRINT**

<table>
<thead>
<tr>
<th>Service And Scripts</th>
<th>Enquiry Stage</th>
<th>Reservation System</th>
<th>Boarding Stage</th>
<th>Journey Stage</th>
<th>Arrival at the station</th>
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</thead>
<tbody>
<tr>
<td>Physical Evidence</td>
<td>Physical Evidence</td>
<td>Booking Counter, Sound and Tone of the representative</td>
<td>Booking Counter, Sound and Tone of Person and ticket</td>
<td>Railway Station, Voice of Announcements, Train appearance</td>
<td>The list Of Passenger</td>
</tr>
<tr>
<td>Customer</td>
<td>Enquiry</td>
<td>Reservation</td>
<td>Arrives at the station for boarding and hires coolie</td>
<td>Check PNR status</td>
<td>Board the train</td>
</tr>
<tr>
<td>Contact (visible)</td>
<td>Gives Required Info</td>
<td>Issue the ticket</td>
<td>Take the Bags to the boogie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invisible process</td>
<td></td>
<td></td>
<td>Preparation of list and putting at Required places</td>
<td>Driver starts the train</td>
<td></td>
</tr>
</tbody>
</table>
3.7 Service Triangle

C. Gronroos developed one of the most popular strategic models for service marketing called the service triangle. Exhibit 3.4 and 3.5 presents the services marketing model of C. Gronroos and Service Triangle for Indian Railways (IR). Gronroos has identified three important groups that play critical roles in successfully accomplishing organizational goals: company (top management), employees and customers. The model proposes a three-dimensional approach for the development of the overall marketing strategy. It suggests the design of three marketing programmes as the integral part of the services marketing programme. The model calls for a special marketing programme between the company and its employees, termed internal marketing. The second marketing programme is between the company and its customers, termed external marketing. The third marketing programme between employees and customers is termed interactive marketing.

EXHIBIT 3.4
SERVICES MARKETING MODEL OF C. GRONROOS

![Diagram of Service Marketing Model]

- Company (Top Management)
- Internal Marketing
- Employee (Internal Customers)
- Service Marketing Strategies
- Interactive Marketing
- Customer (Target market)
EXHIBIT 3.5
SERVICE MARKET TRIANGLE FOR INDIAN RAILWAYS

291 Training institutes and PREM

Website for railway employees

Staff Welfare Plans, Performance-based rewards

Internal marketing

Service triangle

External marketing

Promotion of Luxury trains like palace on wheel etc.

websites and SMS services for facilitating services

Pricing based on consumer group, age-based pricing, intermodal pricing

Employee

Interactive marketing

Passengers

Customer care Institute for trading front line

"May I help You" counters

Source: http://www.unescap.org/tdw/Publications/TIS_pubs/pub_1872/marketingfulitext.pdf

Service market involves three kinds of marketing that are external marketing, internal marketing and interactive marketing.

i. Internal Marketing

The role of employees in services marketing cannot be over-emphasized. An efficient and well-motivated employee performs well even when there are some failures in the design, systems and support services. On the other hand, an inefficient and demotivated employee may not perform well in spite of support from all departments. The concept of internal marketing suggests that the philosophy of the management should be satisfying its employees first. The employees are viewed as the first market for the service organization to serve. Proper pay, promotion and other benefit packages are to be designed to meet their expectations. Steps should also be initiated to motivate the employees and boost their morale. The ultimate goal of internal
marketing is to prepare employees to serve customers with motivation and commitment.

Government of India maintains a website (indianrailwayemployee.com) devoted only for the employees that provide information for recruitment and selections, welfare measures, retirement benefits and all other necessary information for the employees. There are 291 training institutions in India providing training to railway employees. Railway Staff College is one of the institutions that provide training to newly appointed officers, senior managers and executives. For motivational purposes, railway encourages empowerment of employees through machineries like PREM (Participation of Railway Employees in Management). This had given effective and meaningful participation of workers in management process. PREM encourages labor to highlight their views on the railway working and also suggested measures needed to be taken for improving efficiency on the railways. Railway also provides staff welfare plan and performance based rewards for employees

ii. External Marketing

Customers are co-producers for services. Without their involvement, a service output cannot be qualitative. Therefore, it is the responsibility of the service firm to prepare the customer to receive the service in the right perspective. The major tasks are consumer education is to educate passengers about the features of the railway service, sharpening their expectations and developing the right mind-set to participate in service production and to perceive service quality. The limitations and other problems (or possible problems) in the process of service production and consumption, if any, should also be communicated. Customers need to play an active role in the service production process. If necessary, consumers should be trained so as to promote qualitative participation and enhance consumer-perceived quality. The ultimate aim of external marketing is to prepare the customer to participate effectively in service production and consumption.
Indian government has a monopoly in railway services and because of excess demand, directs marketing to the end users is not required. Although, railway do advertise which show emotional attachment of customers with the trains. Railway pricing is based on consumer groups, inter-temporal pricing, age based pricing and pass services for frequent travellers. Promotion of new schemes targets different segments such as tourists, students and daily travelers. Luxury trains such as Palace on Wheel, The Deccan Odyssey, and The Fairy Queen etc. are promoted for tourist purposes. They try to maintain the communication with customers through websites (such as irctc.com) and SMS (Short-Message Service) services by providing facilitating services for travelling by trains.

### iii. Interactive Marketing

Internal marketing and external marketing prepare the stage for the actual interaction between employees and customers. The interaction between employees and service firms and their customers are also called service encounters. There is an important term in services marketing. The service process needs to be facilitated between the two parties, with adequate supports services, tangibles, systems, techniques and other support materials. The goal of interactive marketing is to facilitate efficient production and consumption process and to create positive and satisfactory experiences, if possible, for both customers and employees.

#### 3.8 The Services Marketing Mix

Services marketing are more challenging than goods marketing owing to be unique characteristics of services. The traditional marketing mix that was developed, keeping in view the goals of marketing, may also be adapted to services marketing. But service organizations cannot achieve their marketing goals with the use of the traditional marketing mix as they are to stay at sub-optimal performance in marketing. Merely adopting marketing labels cannot resolve problems associated with the marketing of services. The four Ps of the
traditional marketing mix (Product, Price, Place and Promotion) are control label variables. It is believed that an effective combination of these four components gives an organization a competitive edge in reaching out to the target market. Marketing researchers have well identified the limitations and insufficiencies of the traditional marketing mix if applied to services as well. B. H. Booms and M. J. Bitner suggested a seven Ps marketing mix model for service firms. The seven Ps were later supported by other marketing specialists as well.

3.8.1 Service Marketing Mix of Indian Railways (IR)

The Marketing Mix was modeled with the intention of improving the organization’s profitability. These variables, also known as the Seven P’s, are Product, Price, Promotion, Place, People, Processes and Physical Evidence. It is useful to describe each of these variables in terms of their meaning in a railway marketing environment.

i. Product

Service is an intangible product. It consists of a bundle of features and benefits relevant to a specific target market. As such, there is a high level of flexibility and opportunity to be innovative in designing a product offer. For railways, this is the service offered to customers, both existing and prospective. However, the term also implies some notion of the attributes of a service - its basic design, or its essential features; its presentation, or how it is packaged; its associated support level (which is usually related to the capacity of the organization to deliver an acceptable standard of support for the product, or service); and its branding, or its association with a particular image or identity.

The core products of railway organizations are transportation services, but increasingly railway organizations are diversifying their activities in fields which are not wholly related to their core business, such as commercial property, or real estate development. The product descriptions covered here are, however, related to the core business of railways, since it is these core
businesses which in the past have suffered most from the absence of systematic marketing techniques and which in the future stand to benefit most from their application.

For a railway passenger service, the design and presentation characteristics of the product are generally: the route covered; the service frequency; the achieved transit time (or interval between departure and arrival); the carriage seating standard and configuration; the decor, cleanliness and riding comfort of the rolling stock; the nature and standard of meals provided enroute; the comfort, cleanliness and convenience of station or terminal facilities; and the convenience of connections with other rail services or with other transport modes.

For a railway freight service, the design and presentation characteristics of the product are generally: the route covered; the service frequency; the operational reliability of the service (e.g. adherence to scheduled transit time, etc); the security provided for consignments (e.g. against pilferage and damage); the convenience and efficiency of loading/unloading facilities at rail freight terminals; and the availability of a convenient delivery service to the final destination (i.e. door-door delivery service).

ii. Price

The pricing decision is critical in services too, as this component of the marketing mix alone determines the revenue of the firm. Consumer sensitivity to price would be higher in services than in goods. Though the basic methods of pricing are the same as in goods, the pricing strategies for services basically depends on value perceptions of various groups of people that are targeted by the organization. For a railway passenger service, the price of the service, or the fare, paid by passengers is usually graduated by distance - the longer the distance travelled, the lower the charge per kilometre - although often the charges are broad banded within intervals of distance, e.g. one charge for 0-30 km; another (lesser) charge for 31-70 km, and so on. In addition, fare rates
usually vary with the standard of service used - for example, a first class seat might cost more than double a third class seat, while a deluxe sleeping berth might cost fifty per cent more than a deluxe seat, etc.

In some cases, governments control the maximum level of fares charged for different categories of service, while railway organizations have the ability to discount fares below these maximum, in order to generate more business or to modify demand in some way, e.g. by transferring demand from heavy to light traffic periods. Discounts may be provided for: ticket bulk purchases (e.g. weekly, monthly, yearly tickets), off-peak travel (time of day or seasonal); group travel and tours; student/old age pensioner/other pensioner travel. In a small number of cases, railway organizations have the ability both to adjust the maximum level of passenger fares and to offer discounts off these fares.

For a railway freight service, the price or tariff to be paid by customers for the transport of their consignments is usually expressed as a rate per tonne-km, although freight tariffs can also include charges for other services rendered by the railway, such as the loading/unloading of freight consignments, in which case the charging unit will be different, e.g. tonnes loaded or unloaded. In common with passenger charges, unit freight rates usually decline with the increase of distance, but as in the case of passenger charges may also be broad banded within distance intervals.

Unlike passenger tariffs, which are almost without exception published charges, freight charges may be either published or negotiated rates. If they are published rates, they will generally appear in the railway organization’s standard schedule of charges, and will be available to all customers. If they are the result of a process of commercial negotiations between the railway organization and individual customers, or groups of customers, they will generally be incorporated in long term haulage contracts between the two parties, and will not generally be disclosed to other parties. By definition,
negotiated rates will be available only to the contracting customers, subject to their agreeing to meet certain other contractual conditions.

Freight tariffs are less likely to be subject to control by government than passenger tariffs, yet government imposed ceilings on published freight tariffs are not uncommon throughout the region. In most cases, railway organizations have the ability to offer discounts off the level of freight tariffs in order to expand business, and in a majority of cases they also have the ability to increase the level of freight tariffs in order to recover cost increases.

iii. Promotion

Consumers are co-producers in the service business. The quality of services not only depends on the performance of the service provider, but also on the performance of the service consumer. Very few service organizations or service concepts can have readily available mature performers as consumers. It is the responsibility of service organization to educate and if necessary train customers to make them use the service efficiently. A well-designed promotional programme is of immense help to organisations in informing, persuading and training customers to better their experiences.

Of the different forms of promotion, sales representation has been the most widely used in railway business. However, railway sales forces have mainly had a passive or reactive, rather than a proactive role, servicing existing customers rather than seeking out and securing new customers, order taking rather than order generating. Furthermore, these sales forces have not been organized in a way which would assist them to actively promote railway services and secure new business.

Only a relatively few railway organizations have encouraged market segment specialization by their sales personnel, with the result that most railway sales forces have not been able to develop the specialized knowledge of individual market segments needed to be able to effectively sell railway
services to these segments. The lack of specialization is particularly evident in passenger marketing cells, where too often sales force activity is has no specific focus of any sort. Indeed, in many railway systems of the region, there is no passenger sales force at all and selling activity is confined to ticketing or reservations offices, which in reality have an “order taking” function.

There is now clearly an urgent need to focus railway sales force activity on individual market segments and at the same time to ensure that this activity is fully co-ordinated with other forms of promotional activity, such as advertising. The reticence of railway managements in the recent past to commit to the development of co-ordinated promotional campaigns for their core transportation business is partly explained by budget limitations and some degree of scepticism that promotion can be effective in increasing the volume of this business. Increasing competition (particularly from road passenger and freight transport operators), will however dictate a change in this attitude. Railway managements can be expected in future to allocate an increasing proportion of their operating budgets to promotion. At the same time, they can be expected to employ more sophisticated techniques (such as on-board passenger sample surveys) to measure the effectiveness and reach of their promotional campaigns, in order to maximize the value of future campaigns.

iv. Place

Services are intangible as well as inseparable. These two characteristics do not allow a service firm to follow the same channel options available for goods marketing. Due to the intangible character of services, traditional wholesalers and retailers cannot be used. As services cannot be stored and separated from producers, retailing cannot be an independent activity in services marketing. Production, distribution and consumption are simultaneous activities in services. However, services have an advantage in using the direct selling approach through which services can be offered to the customer at a lower cost. This does not mean direct selling while is the only way of selling services. There are certainly other channels of distribution, such as agents and
brokers, franchisers and electronic channels which are used for the distribution of services.

In the wider sense, “place” will mean channels of distribution for the products. Outside of the railway organization itself, the most effective channels of distribution for the railway “product” are likely to be travel agents in the case of rail passenger services and freight forwarders, in the case of rail freight services. The main advantage of using external channels of distribution is that business volume can be maximized through a relatively small number of direct customers, who act as wholesalers, on-selling space on trains to a much larger group of final consumers, accepting the credits and business risks and arranging storages and feeder transports (to/from railheads), where required. By directing a greater proportion of their business through such “wholesalers”, railway managements can often achieve significant reductions in their operating costs, with commensurate improvements in the overall corporate financial result.

v. People

Service organizations are people-oriented and people-based organizations. The employees of a service firm constitute a major competency in undertaking business operations. Every employee of the service organization is a marketing person, who undertakes either full-time or part-time marketing activity. The following have a direct influence on consumers: line of visibility, employees’ direct contact with customers and their behaviour, activities and performance. Service employees are to be trained and motivated for better performance in marketing activities.

It almost goes without saying that people are a railway organization’s most important resource. So it is that a railway’s people resources will be vitally important to the realization of its marketing goals. It will not matter how advanced and sophisticated are a railway organization’s management systems if the railway’s existing and potential customers do not feel that
railway staff are listening and responding to their needs. What is required, therefore, is total customer awareness from the very top to the lowest levels of staff in the railway organization. Inevitably, this in turn will require that a customer awareness culture be instilled throughout the railway organization by its senior management, who in most cases make the mental transition themselves, or be prepared to be swept aside by personnel who already have.

vi. Processes

Process is a functional activity that ensures service availability and quality. The way the physical setting is designed technically, in which functions are scheduled and routed to provide promised services to customers effectively speaks of the of the process. In simple terms, the management of process is to manage service encounters (the interaction between service employees and customers, customers and service environment, systems and other facilities) effectively. Moments of truth occurs during the service encounter. The challenges of process management are to improve the moments of truth.

Railway processes, especially operational processes, have evolved over the 170 year history of the development of the railway as a common transport mode. In many instances these processes have changed in response to the development of competing transport modes, especially road transport. An example of change spurred on by the increasing availability of door to door services. It has provided by road transport which has been the demise of the collection and re-marshaling of casual wagons from private ridings and its replacement by the operation of block trains between inter-modal terminals.

The predominant aim of this process is to offer compatible serves as per the needs customers. If a customer requires regular and frequent dispatch of his loading on scheduled fast freight trains, then a railway’s policy of operating infrequent, slower and longer trains will obviously be incompatible with these needs and the railway must be prepared to change its process accordingly. The
process in effect is an integral part of the railway’s delivery of its product (i.e. service) and will have a crucial role in determining whether in the end the product will satisfy customers or not.

vii. Physical Evidence

Most services cannot be offered with the support of tangibles. Though consumers cannot see the service, they can definitely see the associated tangibles, examine them and try to form an opinion on the service provider. Thus, a passenger transports organization’s promise of a safe, comfortable and timely journey from one place to another. It is further examined the transport vehicle’s condition, seating facilities and other physical facilities, for the personality of the driver and other personnel, the office furniture and equipment being used, and the way employees are responding to customers etc. All these physical objects are used as evidence by the consumer to assess and expect performance from the service from the service provider. Hence, physical evidence plays a critical role in shaping consumer perceptions and expectations.

Physical Evidence refers to the physical evidence available to customers in the layout and presentation of railway facilities that their needs are actually being met. The design, layout and signage of passenger stations, for example, must be such as to convey the impression to travellers that the railway really wants their business. This, it will do by ensuring that platforms, concourses, ticket/reservations offices, waiting rooms, toilets, baggage lockers, bus interchange and transfer facilities, etc., will be comfortable and convenient for all categories of travellers to use. These facilities also have a critical influence on customer acceptance of the railway product.

The seven Ps of services marking become the marketing offer of the organisation to the target market. The marketing mix aims to achieve seven distinct goals. They are matching the offer to the consumer needs and wants,
consumer quality expectations, consumer perceptions, consumer satisfaction, customer relationships, customer welfare, customer protection and social well-being. The dynamic nature of the target market in all the seven distinct areas offers challenges to marketing organizations. Service firm can be successful only when they make all the marketing mix elements are dynamic and adaptable to the changes in the market environment.

3.9 Challenges Faced by IR in Passenger Business

The growth in Railway’s freight and passenger traffic in recent years has highlighted a number of systemic constraints in railway operations. This section of the study focuses on the challenges faced by the IR in management of passenger business.

a. Supply constraints and under-recovery of cost in passenger business

IR's network of 64099 route-kilometers admittedly does not reach many regions and the existing network of MG/NG of over 12000 kms (Kilo Meters) grossly under-serves the population in the respective regions. Even for the population connected to the B.G. (Broad gauge) network, Railway's passenger business is characterized by supply-side shortages. Infrastructure capacity, in particular, acts as a constraint on the expansion of service to the fullest extent to meet the increasing demand. The supply constraint can be resolved with determined action to ease constraints in line capacity, terminals and rolling-stock.

A second feature relates to the non-recovery of full cost of the services as a whole resulting in losses, compensated by cross-subsidization from freight services. While passenger services consume nearly 60per cent of the network capacity, their share in the traffic earnings amounts to only 33per cent. Competition from different modes, low-cost air carriers in particular in respect of long distance and luxury buses in short to medium distance segments, is beginning to threaten Railway’s hold on the upper-class passenger segment. As a result, Railways are under pressure not to increase premium class fares. On
the other hand, second-class fares, especially suburban fares, have been spared any hike for several years as these are considered critical for the underprivileged sections of society. The net result is that passenger business of railways has been a losing proposition.

Railways presently serve a range of price points by providing as many as 21 classes of seats/berths and 9 categories of train services. In our country complexity, this is necessary and will continue to be relevant for a long time. Serving the second-class passengers, who would continue to constitute the majority, at an affordable cost will be a key challenge. However, loss of 18 paisa per each passenger kilometer run (more than 40 percent of the cost) is not sustainable. A two-pronged approach to achieve significant cost efficiencies and target the subsidy only to the needy sections of population would need to be followed to address this issue. Cost innovations in passenger operations may help IR to bring down the unit costs and progressive introduction of upgraded services would aid better cost recovery. This would include running of 24 to 26 coaches per train in sectors with high demand, standardization of coach compositions to the extent feasible and rationalization of maintenance regimes to maximize rake availability for operations.

(b) Upgradation of Quality of Services

Increasing population, prosperity and urbanization combined with a favourable demographic profile would continue to fuel the growth of passenger traffic across all segments. There would be a steady upward movement towards the premium classes. However, to reposition rail travel as a first-choice option among passengers, including tourists, would call for a major make-over in the image of trains, stations and passenger services. A number of initiatives have already been taken to cater to this trend but there still are a large number of areas which would require close attention. These include: development of modern passenger stations and terminals, re-design of trains with pleasing, soothing colours and exteriors, plush interiors and green toilets, responsive
expansion of supply to match demand, raising of speed, use of information technology to make the entire interface of passengers with the Railways a pleasant one and a systematic approach to provision of on-board services like catering, bed-roll supply, entertainment etc. Re-design of second class coaches to make them more comfortable for passengers should also be a priority. Modernizing passenger information, enquiry and guidance systems at the stations and its integration to real-time train running by use of intelligent technological aids would be another important challenge.

(c) Redevelopment of Stations

Many of the railway stations located in major metropolitan cities individually handle more passengers than the combined numbers handled by all airports of the country put together. However, the stations are inadequately designed and equipped to handle such large multitudes of passengers. They do not provide easy access or comfortable experience prior to boarding or after disembarkation from trains. Street-level access is generally restricted to one or two end-platforms (except at terminal type of station layouts). Inter-platform connectivity is through foot over-bridges which are often inadequate, apart from being passenger-unfriendly. Good-quality waiting space and modern shopping or retail, pertinent to passengers' needs is largely absent. Incoming and outgoing passengers are not segregated at platforms. Platforms are also used for parcels. Catering stalls occupy a part of the limited space on platforms. All these lead to severe congestion on platforms. In addition, lack of sustainable waste management practices mark out our major stations for lack of hygiene and cleanliness.

Besides these functional inadequacies, most of the stations have not been built with any architectural or aesthetic consideration and as a result act as poor introduction to the cities they serve. These stations must be easy to access and use, pleasant to spend time in and must be fully integrated with the surrounding city. 50 stations have already been targeted for development as world-class stations. New directional terminals need to be built in major
metropolitan cities. This calls for massive resources and organizational capabilities. Leveraging a part of the real-estate occupied by the stations, including the use of the airspace, and viability gap funding by government could make development of such stations an attractive proposition for Public – Private Partnership (PPP). However, developing, awarding and executing projects of such complexity through PPP are a serious challenge.

d) Slow-moving Passenger Services

Passenger services stopping at all stations are run with poor-quality coaches. These also pose a serious challenge to management of train operations in a freight-passenger mixed environment. Introduction of modern, comfortable Electrical Multiple Units/ Modified Electrical Multiple Units/Diesel Multiple Units (EMU/MEMU/DMUs) capable of quick acceleration/deceleration to replace slow-moving passenger trains would not only enhance the quality of service, but also help improve operations.

(e) Raising of Speed

Improvement of speed to 160-200 kmph on segregated passenger corridors would be necessary to meet the requirement of fast intercity travel between major cities. In the long run, however, genuine high speed trains with travel speeds exceeding 300 kmph would be needed to keep pace with developments in other parts of the world.

(f) High-speed trains

Construction and operation of high speed lines is, however, very expensive and would require capital infusion and passenger patronage of a very high order. Massive capital investment would necessitate running of trains at frequent intervals of 5-10 minutes with sufficient load factors. Fare box revenues may not be sufficient to cover cost of infrastructure and operation for a long time. This would, therefore, call for innovative approaches; a mix of viability gap funding from government - both at central and state levels and
leveraging of real-estate would be necessary to attract successful PPP interest in these projects.

(g) Suburban Transport

In the suburban segment, the main challenges are the creation of adequate capacity, segregation of commuter lines from long-distance lines and expansion of services to ensure comfort of commuters. Partnership with state authorities will be necessary for development of suburban rail systems. Railways may also aim at integrating the metro-rail and suburban rail-systems under a single management in partnership with the respective state/city authorities.

Efficiency of railway operations is predicated upon capacity, more tonnage/passengers per train and speed. Identification and satisfaction of customers' specific needs would be necessary for premium services. To achieve the Vision for ambitious growth, Indian Railways (IR) has to offer a range of cost-competitive and differentiated services. The first and foremost prerequisite for this is adequate capacity. Other challenges that IR must embrace and overcome would pertain to alignment of material and organizational resources towards design and delivery of efficient, high-quality services and time-bound project execution.

3.10 Conclusion

Indian Railways (IR) shall provide efficient, affordable, customer-focused and environmentally sustainable integrated transportation solutions. It shall be a vehicle of inclusive growth, connecting regions, communities, ports and centers of industry, commerce, tourism and pilgrimage across the country. The reach and access of its services will be continuously expanded and improved by its integrated team of committed, empowered and satisfied employees and by use of cutting-edge technology.