

Indian railways - world's largest commercial employer's social capital inventory

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Abstract

Study level/applicability

The target audiences for the case study are undergraduate and postgraduate (e.g. BSc, MSc as well as MBA) students and also management trainees and executives who are interested in understanding the social capital enhancing practices, policies and strategies adopted by the world's largest commercial employer to ensure complete satisfaction and contentment of 1.7 million employees and their family. Even senior management teams could be targeted in executive education programs, as this case discusses time tested practices, policies and strategies which have been sparsely discussed so far and hence can be expected to provide insights to senior corporate managers. The case also demonstrates the application of different frameworks on social capital and corporate social responsibility which can be used by the participants in their firms to assess the social capital.

Case overview

Indian Railways (IR) remains the world's largest commercial employer, with approximately 1.7 million employees, which conveys the huge magnitude of social capital inventory accrued. This social capital, especially people side of IR, played a very crucial role in running the organization successfully for more than a century. As an organization, IR has guaranteed heavy importance for its employees while making decisions on strategic level. But recently, IR was moving towards automation and was cutting on cost incurred for its employees. IR was already exhibiting decreasing trend in the number of employees employed in the organization. These initiatives were resisted by IR employees due to fear of job losses and insecurity. In 2013, Chief Personnel Officer's (CPO) of different zones have to rethink about their HR practices to assure confidence for employees on the security of their jobs and sustain the social capital accrued by IR over years. The objective of this case study is to describe the social capital accrued by IR over the years by offering livelihoods for nearly 1.7 million families across the country. Teaching note applies the frameworks on social capital in literature in the context of IR. Teaching note also discusses how CPOs of IR can pursue the change initiatives among the employees without affecting the social capital accrued so far.

Expected learning outcomes

Case study's primary objective is to apply frameworks available in literature on social capital and corporate social responsibility to understand the social capital accrued by IR over decades. The case study attempts to answer the following assignment questions which forms the learning objectives of this case study: How do the existing frameworks on social capital measurement explain the social capital accrued by IR over decades? How can a firm assess its accrued social capital? How can one demonstrate the same using the case of IR? How can IR pursue change initiatives when it comes to its employees without affecting the social capital accrued over time?

India underwent sweeping economic changes in 21st century. One organization which shouldered the infrastructural burden of the transportation sector in India's growth story was the 160 plus year old Indian Railways (IR). IR remains the world's largest commercial employer with approximately 1.7 million employees. This huge employee base conveys the magnitude of social capital inventory accrued by the organization over years. This social capital, especially people side of IR, played a very crucial role in running the organization successfully for more than a century. However, with recent increase in the adoption of technology and automation at various processes, IR was experiencing declining trend in the number of employees in the organization. These new initiatives and changes were resisted by IR employees due to fear of job losses. In 2013, IR was planning to revisit its HR practices to understand the transformations that has happened in past to reach at the current state and how they can be improved or sustained in future. Chief Personnel Officers (CPO) of different zones have to rethink their HR practices to assure confidence for employees when it comes to job security and sustaining of the social capital accrued by IR over years.

Background of IR

On 16th April 1853, first train journey on Indian soil started on a 21-gun salute through a locomotive with 14 carriages and 400 people from Bombay station making its way to Thane, a 34 km away destination. Many of the rail network's main trunk routes were laid by private companies under schemes that would now be described as 'build-operate-transfer' projects. In 1924, its entire system—construction, operation and financing—was brought under the control of the British Indian Government. IR is often credited with integrating not just the Indian economy, but the Indian nation itself. By 1947, the year of India's independence, 42 rail systems were established which were nationalised by 1951 as one unit to become one of the largest networks in the world.

In 2003, India celebrated the 150th anniversary of its first train journey. The railways have played a critical role in catalysing the pace of economic development and continued to be an integral part of the growth engine of the country (refer to **exhibit 1** for details on overall Indian transportation sector). IR is one of the largest and busiest rail networks in the world, transporting 18 million passengers and more than 2 million tonnes of freight every day. This rail network covers a total length of more than 63,327 km (39,500 miles). China has a total of about 72,000 kilometres of railway lines (though China is about three times larger in area than India). Brazil has rail track totalling about 32,000 kilometres. Australia is twice as large as India in area and has a total of about 45,000 kilometres of railways. As of 2008, IR owned about 225,000 wagons, 45,000 coaches and 8,300 locomotives. It ran more than 18,000 trains daily, including about 8,984 passenger trains and 9,387 goods trains. IR total track mileage (63,327 km) rivals the length of the entire US Interstate Highway system, even though the United States is three times the size of India. If all the wagons, coaches and locomotives of IR were lined up, it would be equal to the length of the US-Mexican border.

Traffic carried by IR has exhibited buoyant growth, averaging 9% growth per annum in the case of freight and 8% in the case of passengers, over the last five years (Eleventh Five Year Plan Report, 2007–2012). The Ministry of Railways set itself an ambitious target of carrying 1,100 million tonnes of freight and 8.4 billion originating passengers by the end of the ‘Eleventh Five-Year Plan’ in 2011-12 and currently is progressing towards achieving it. Every year, Indians make 5.4 billion train trips, of which, 7 million are made each day in suburban Mumbai alone (equal to the population of Hong Kong). New Delhi station sees a transit of 350,000 passengers per day, roughly five times more than New York’s LaGuardia Airport.

Employees Executing the IR Journey

IR has assured lifetime livelihood for a large number of families, close to 2.5% of the Indian families (a workforce of ~1.7 million and ~1 million pensioners). IR is one of the world’s largest commercial or utility employers, with approximately 1.7 million employees of which 1.4 million are regular employees and the other 300,000 are casual workers. Railway employees are classified into four classes – Class I to Class IV. Class IV has 8 lakh employees, Class III has 6 lakh employees, and Class I and II together have 8,500 employees. Class III & IV constitute 99% of the total workforce as Class I and II are made up of officers and managers.

Surprisingly, until 1924, there was no separate department or function in the IR to deal with matters associated with such a huge staff base. Executive officers had to deal with all of them along with their other job role responsibilities. In 1946, on the account of large increase in the volume and complexity of labour and establishment work, the Railway Board decided to establish a distinct Railway Service with its own cadre, to be known as the Establishment Department. Seventeen candidates were recruited through the Central Services Examination held in 1945 and 1947. However, in 1949, the Railway Board did away with recruiting for this newly installed department. Thereafter, from 1956 to 1960, there were Seconded Personnel Officers who looked after staff/personnel matters.

In 1966, the First Administrative Reforms Commission was set up. Commission recommended to setup a separate Department of Personnel. However, it was only in the 1972 railway budget, decision was made to operationalize the setting up of a new department of personnel with modern management techniques. From 1980, the Union Public Service Commission (UPSC) started recruiting Indian Railway Personnel Services (IRPS) officers. IRPS is a small cadre with around 320 officers (called Group A officers). These officers are assisted by Group B Personnel Officers (promoted from Class III and IV), several Group C Personnel and Welfare Inspectors, Office Superintendents and Clerks posted all over India. Interestingly, the accounts department remained to be the only department responsible for its own staff matters. The staff matters of all other departments are looked after by the personnel department.

Group A and B Officers (Class I & II) are chosen through a competitive examination held by the Union Public Service Commission (UPSC – Civil services). Slightly modified recruitment and selection routes were adopted for Class 1 and II officers in different branches, namely IR Traffic Service (both commercial and operations division), IR Accounts Service, IR Personnel Service, Railway Protection Service/Railway Protection Force, and Railway Engineering Services (includes Indian Railway Service of Electrical Engineers and the Indian Railway Service of

Mechanical Engineers). Recruitment to Class III and in some cases Class IV in IR will be on a national basis—through the Railway Recruitment Board (RRB). Currently, there are 19 RRBs across the country. In 1998, the Ministry of Railways (Railway Board) set up the Railway Recruitment Control Board (RRCB). For all the above posts a stringent medical examination is carried out by doctors in IR hospitals prior to final appointment. Comprehensive training at the initial/induction stage is compulsory. Most positions have a one-year probation, though this varies for departments and positions. Promotions in the lower grades are based on ‘seniority-cum-suitability’ and in the higher grades are based only on merit. Apart from the above recruitment and selection route, IR encourages outstanding sportspersons to represent in their respective disciplines. A unique concept within the IR is the ‘compassionate appointment’ of a dependent child i.e. son / daughter or wife (above 18 years, subject to basic fulfilment of employment conditions) on the death of an employee.

Benefits of Being an Employee for IR

Training and Development

Training and development remains paramount to IR as it concerns transportation, and hence, safety. All new recruits undergo training when they join. An annual training calendar (January to December) is planned at the Board level, which is then percolated to the different zones and respective zonal training centres. This training calendar is rolled out every 5 years. The zonal training centres request for nominations from the divisions and schedule the training. Nominations are then sent from the divisions to the headquarters and the zonal training centres for administration of training on the said date. Employees mentioned that the nominations for a ‘training programme’ can also be communicated to the specified staff members electronically. Personnel department was involved in administering and overlooking training programmes for various staff. In comparison to previous decades, there has been a phenomenal increase in the number of training programmes for IR employees.

Post training, the training centres conduct examinations—both written and practical—to measure the effectiveness of training. Another method the railways use to measure effectiveness of a training programme is the use of simulation exercises—as is practiced in the Sabarmati locomotive maintenance section in Gujarat. The ‘running’ staff are expected to undergo a ‘simulation’ test where their abilities to run a train are tested. Here, in the words of an officer, “they will be allowed to operate the trains only if they pass the simulation test.” The Sixth Pay Commission has also introduced training programmes such as ‘Train the Trainer’, wherein employees trained at the zonal training centres may train staff internally at the division.

Gazetted officers also undergo management training courses both in India and abroad. In India these are held at the Indian Institute(s) of Management (IIM). Recently, IR signed a 5-year contract with HEC Paris, a global business school. HEC Paris will provide international learning programmes to middle and senior management and will become IR’s biggest supplier of external learning for managers. The training needs of non-gazetted staff are being taken care of by ~200 IR training centres. These training institutes and centres specialise in various functional training based on the different functions or departments. For example, for operating staff there exists driver training, guard training, motorman training, etc. Apart from receiving training when they

start out in their careers, railway personnel also receive periodic training in the form of refresher courses or when new methods or technology are introduced. They felt that the identification of a 'training need' was most probably the outcome of their annual 'performance appraisal'.

Hours of Employment Regulations

The hours of work, periodic rest and overtime entitlement of all railway employees (including casual workers, except those employed in the workshops or on the ferries) are governed by the Hours of Employment Regulations (H.E.R.). The genesis of H.E.R. dates back to the Indian Railways (Amendment) Act 1930, which was enacted to implement the provisions of Washington Convention No. 1 of 1919 ratified by the Government of India in 1921, and Geneva Convention No. 14 of 1921 ratified by the Government of India in 1923. In 1956, the Indian Railways Act was amended by the introduction of Chapter VI-A, and in 1961, the Central Government framed rules under Section 71-E of the same Act and these rules were published under the title 'Railway Servants (Hours of Employment) Rules, 1961'. The four classifications are defined below:

1. The employment of a railway servant is said to be "continuous" except when it is excluded or has been declared to be essentially intermittent or intensive (shall not be employed for more than 54 hours a week on an average in a two-weekly period of 14 days).
2. The employment of a railway servant is said to be "essentially intermittent" when it has been declared to be so by the prescribed authority on the ground that the daily hours of duty of the railway servant normally include periods of inaction aggregating to fifty per cent or more (including at least one such period of not less than one hour or two such periods of not less than half an hour each) in a tour of twelve hours duty (on the average over seventy-two consecutive hours), during which the railway servant may be on duty, but is not called upon to display either physical activity or sustained attention (shall not be employed for more than seventy-five hours in any week).
3. The employment of a railway servant is said to be "excluded" if he belongs to any of the following categories:
 - a. Railway servants employed in a managerial or confidential capacity.
 - b. Armed guards or other personnel subject to discipline similar to that of any of the armed police.
 - c. Staff of railway schools imparting technical training.
 - d. Such staff as may be specified as supervisory under the rules.
 - e. Such other categories of staff as may be prescribed.
4. The employment of a railway servant is said to be "intensive" when it has been declared to be so by the prescribed authority on the ground that it is of strenuous nature involving continued concentration or hard manual labour with a small or no period of relaxation (shall not be employed for more than 45 hours a week on an average in a two-weekly period of 14 days).

Compensation

The structure of emoluments and conditions of service of railway employees, like those of other Central Government employees, are reviewed periodically by the 'Pay Commissions' appointed by Government from time to time. All employees from the regular establishment of the Railways are placed on time scales of pay, in which they draw annual increments as a matter of course, except on reaching an 'efficiency bar'. Allowances are related to the cost of living index (as in the case of Dearness allowance). Employees are also compensated on account of unusual working hours or special nature of duties (such as night-duty allowance or running allowance), or inhospitable or expensive place of posting (such as bad climate allowance, hill allowance, house rent allowance, city compensatory allowance). The rules governing the pay and allowances, leave entitlement, retirement-cum-death benefits, etc., of railway employees are collectively known as 'Establishment Rules' and are embodied in the Indian Railway 'Establishment Codes' and the Indian Railway 'Establishment Manual'. Permissible deductions can be made from the wages of an employee in the form of Income tax, Employees State Insurance, Provident Fund, and Death-cum-retirement fund.

To increase the productivity of workshops and production units and create incentives for employees and their supervisors, an incentive scheme (Performance Related Pay-PRP) has been in existence in the Railways for many years (initially introduced in Chittaranjan Locomotives). Time was kept as the yardstick for measuring work and productivity. 'Allowed time' is fixed after a detailed time study and includes allowances for fatigue, general handling, etc. The scheme enables a workman of average ability to earn 33.33% over and above his basic wages. Pay and allowances of regular employees account for about 45% to 60% of the total working expenses of IR (excluding appropriation to the Depreciation Reserve Fund and the Pension Fund—for its 1 million pensioners). On average, it spends INR 520 million (\$11.19 million) on staff expenditure per day. Having an enormous staff on its rolls, it would always be a challenge to service payroll. Payments, however, are made on a monthly basis. The mode of payment is through banks and cash. All gazetted staff is paid through banks but non-gazetted staff can opt for cash or bank payment.

Productivity Linked Bonus

The Railways were the first departmental undertaking of the Government of India to introduce the Productivity-linked Bonuses (PLB) concept. The main consideration at that time was the importance of the Railways as an infrastructural support in the performance of the economy. In the overall context of railway working, it was considered desirable to introduce the concept of PLB as against the concept of bonus on the lines of 'The Payment of Bonus Act, 1965'. Even though the Payment of Bonus Act does not apply to the Railways, the broad principles contained in that Act were kept in view for the purpose of determining the wage/pay ceiling, definition of 'salary'/'wage', etc. The PLB scheme for the IR came into force from 1979-80 onwards and was evolved in consultation with the two recognised federations—All India Railwaymen's Federation' (AIRF) and National Federation of Indian Railwaymen (NFIR)—with the approval of the Cabinet. PLBs are paid to all Class III and Class IV staff. In 2008, 73 days pay was given as PLB, and in 2009, it was increased to 75 days (1.38 million employees were on the rolls in

2008 and 1.35 million in 2009). The financial implication of payment of 75 days' PLB to railway employees has been estimated to be \$192 million.

The scheme envisages a review every three years. The recent Sixth Central Pay Commission (CPC) has recommended that all Departments (including the Railways) should ultimately replace existing productivity-linked bonus schemes with a Performance-Related Incentive Scheme (PRIS). It also stated that in places where PLB is applicable and it is not found feasible to implement PRIS immediately, the existing productivity-linked bonus schemes may be continued in a modified manner, wherein the bonus is linked with profitability/productivity. The Government has decided to examine the recommendations of the Sixth CPC on PLB schemes separately. However, the recommendation regarding PRIS has been accepted by the Government. Thus, individual ministries/departments are required to devise PRIS in accordance with their own organisational structure and need, as per guidelines to be issued by the nodal Ministry.

IR Employee Welfare- Probably the Best

IR employees enjoy fringe benefits such as free passes and concessional tickets to travel the length and breadth of the country. These cover the employee and his/her dependent family at all levels. Many employees noted that these were factors that attracted them to join the railway service. Another 'motivational' or 'pull' factor to join the railways is the ability to maintain a "work-life balance" in comparison to the private sector. In addition, there is the assurance of a fixed career progression. Hence, though the remuneration is lower than in the private sector, railway employees enjoy "job security" at all levels except under exceptional cases in an otherwise highly volatile job market. The low level of staff turnover is evident from the number of pensioners— a staggering 1 million. It was also learnt that in the current economic climate there has been an increase in the number of applications for jobs as a job in IR is seen as a "job for life". IR has often been called 'a country within a country' as it owns and maintains schools, hospitals, housing, cooperative banks, cooperative societies, recreation clubs, etc and also has its own security force—the Railway Protection Force (RPF).

Perhaps no private or public sector company's employees can boast of the welfare and fringe benefits IR employees enjoy. Welfare measures include a whole range of fringe benefits such as:

1. Subsidised housing (46% staff provided with housing—2007)
2. Medical care (As of 2008, 121 hospitals; 586 polyclinics; 92 dispensaries)
3. Provision of schooling facilities at many places (although normally education is a State subject) and grant of educational assistance for the children of railway servants (as of 2008, 365 schools; 130,000 students; 5,500 teachers; 1,100 support staff)
4. Provision of railway institutes and clubs for the recreation of railway staff
5. Establishing holiday homes in suitable places where cheap accommodation is available for all railway staff
6. Promotion of sports and scouting activities, etc.
7. Canteens (as of 2008, 253 in number)
8. Vocational training centres for unskilled and semi-skilled railway workmen and vocational training for children of railway employees.

9. Handicrafts centres have also been established where family members of railway employees learn sewing, knitting etc., and also earn extra income.
10. Three free annual train trips and four at a third of the rate for an employee and his dependent family (class as per position and years of employment)
11. Allocation of \$4 billion over a five-year period for improvement in safety standards governing track, bridges, and signalling.

Other than fringe benefits, there are several welfare facilities unique to IR as listed below:

Railway Staff Benefit Fund (SBF)

Each Railway zone maintains a Staff Benefit Fund. The Fund is administered by a Committee consisting, among others, of railway staff nominated by the recognised union(s). The objects of the fund are:

1. Education of staff and their children
2. Recreation and amusement for staff and their children (~1/8th of the amount is spent on promotion of sports)
3. Relief of distress, among staff and their families
4. Schemes for sickness or maternity leave of the families of employees (when not covered by the Medical Attendance and Treatment Rules)
5. Any other object with the approval of the General Manager

Co-operative Societies

This is a unique facility in IR that consists of two categories: (a) Consumer Co-operative Societies (b) Co-operative Credit Societies. Consumer Co-operative Societies are those that engage in retail trade to meet the needs of their members. Membership is open to all serving railway employees, who may purchase at least one share of a specified minimum value. The Co-operative Credit Societies/Banks have been set up to encourage the 'habit of thrift' among members. Its aim is to help railway employees' effect savings in their current consumption to meet their future credit needs. As of 2007, the following were functional:

- 178 registered Railwaymen's Consumer Co-operative Societies
- 18 Railwaymen's Co-operative Housing Societies
- 18 Labour Contract Co-operative Societies

'Free All India Travel Passes' welfare facility was most favoured by the employees of IR. They also felt that the staff welfare measures introduced by the IR had increased greatly over the last 10-30 years.

Employment Relations - Successfully Managed for Decades

Since it is such a large organisation, good employment/industrial relations are vital for IR. Indian Railway Personnel Service (IRPS) is an organised Group 'A' service of the 'Government of India'. IRPS remains to be the only government service amongst the Group 'A' and All-India

Services catering exclusively to the discipline of the Personnel Management. IRPS is a small cadre responsible for (a) establishment & personnel management, (b) looking after the industrial relations, (c) administration of labour laws, (d) administration of welfare schemes (e) legal matters, and (f) human resource development of Indian railway personnel. IRPS also remains responsible for looking after the pensionary matters of retired railway personnel. CPOs fall under the IRPS senior and higher administrative officers' category at the level of Zonal HQ/equivalent units (refer to **exhibit 2** for other IRPS designations). As the railways is run as a Government Department, the focus is more on the running of the huge Railway Establishment, in accordance with Government orders etc. and less on the HRM.

On the other hand, employees are represented by recognised trade unions in the zones, divisions and PSUs. Employment/industrial relations was generally seen to be congenial among the three main actors: trade unions, management and staff. Employees felt that personnel department interventions had increased immensely over the last 10 years, aiding their overall development and growth. They also believed that management involvement was high and it was increasingly working on bringing about a positive change. There have been no major industrial conflicts since the historic 1974 strike, which attracted worldwide attention also conveys this belief. Employees feel the strong presence of trade unions within the organisations. India has about 150 labour laws, and hence, a large body of labour legislation has been enacted over a period of time to safeguard the interests of industrial and other employees. These are generally applicable to railway workers unless otherwise specified by any law.

Union Recognition

In order to be recognised by a railway administration, a union has to be registered under the Indian Trade Unions Act, 1926 (XVI of 1926). There are two main officially recognised unions at the national level:

1. The pro-Congress National Federation of Indian Railwaymen (NFIR) and
2. The pro-Left Socialist All India Railway Federation (AIRF)

In 2007, for the first time in its 154-year history, a secret ballot was introduced to accord recognition to the railway trade unions (on the directions of the Supreme Court of India). The union that secured 35% of employee votes or 30% of the total electorate in the secret ballot would gain recognition. Also if a union got over 50% of the votes, it would be the only recognised union.

Laws, Rules, Regulations, Procedures & Railway Board Orders

A large body of labour legislation has been enacted over a period of time to safeguard the interests of industrial and other employees. These laws were generally applicable to railway workers unless otherwise specified by any law. From an Employment Relations point of view, the following were considered important:

- The Industrial Disputes Act, 1947
- The Workmen's Compensation Act, 1923
- The Minimum Wages Act, 1948

- The Factories Act, 1948

The President of India laid down the conditions of service, as a part of his/her constitutional duties, under Article 309 of the Constitution of India. The President's office has promulgated various statutory rules in exercise of this power. These statutory rules include:

- Indian Railway Establishment Codes Volume I & II
- Railways Act, 1989
- Railway Servants (Hours of Work & Period of Rest) Rules, 2005
- Railway Services (Liberalised Leave) Rules, 1949
- State Railway Provident Fund Rules
- Railway Services (Conduct) Rules, 1966
- Railway Servants (Discipline & Appeal) Rules, 1968
- Railway Servants (Pass) Rules, 1986
- Railway Services (Pension) Rules, 1993
- Railway Services (Commutation of Pension) Rules, 1993
- Railway Services (Extraordinary Pension) Rules, 1993

Railway Services (Conduct) Rules: Inevitably, the multifarious spheres of railway operation impose certain responsibilities and obligations on railway employees. All railway personnel are expected to observe a general code of behaviour in regard to various matters, such as:

1. Employment of near relatives in private undertakings enjoying government patronage
2. Joining of associations or unions
3. Indulging in criticism of the Government and unauthorised communication of information
4. Maintaining and furnishing a record of movable and immovable assets

As an employee of the Central Government in the Ministry of Railways or in the Railway Administrations, a railway worker is expected to be a "good, honest and conscientious member of the railway staff and an exemplary citizen of the country".

Staff Grievance Redressal

Redressing staff grievances remains a very important aspect of employment and human relationship with workers. IR has institutionalised arrangements for this purpose. Implementation cells ensure that the grievance-redressal machinery functions effectively and all commitments and agreements with the staff are implemented faithfully.

Permanent Negotiating Machinery (PNM): The PNM started functioning on the Railway in 1951. A Permanent Negotiating Machinery has been set up to maintain contact with organised labour and to resolve disputes and differences that may arise between them and the administration. The negotiating machinery works in three tiers:

1. Railway level—in which recognised unions have access to divisional and workshop officers and to officers at the headquarters of the railway administration.

2. Railway Board level—in which representatives of the recognised federations meet the Railway Board to obtain decisions on matters that have not been settled at the Railway level.
3. Tribunal level—in cases where an agreement is not reached between the federations and the Railway Board, and the matters are of sufficient importance to merit reference to an ad hoc Railway Tribunal. The tribunal consists of representatives of the railway administration and labour and is presided over by a neutral Chairman.

Departmental Council (Ministry of Railways) & National Council: With the objective of promoting harmonious relations between the Central Government and its employees, the National Council and Departmental Councils have been constituted. The Councils may discuss matters relating to conditions of service and work, welfare of employees and improvement of efficiency and standard of work. No individual cases can be considered by the Councils, and in regard to recruitment, promotion and discipline, the Council members have to restrict their deliberations to matters of general principles only.

Turnaround Strategies – Why people are considered to be the assets of IR?

The railways have been around for more than 156 years and have been the backbone of Indian transportation sector. They have been chugging along, transporting people and freight to almost every part of this vast and diverse country. As recently as 2001, the Government of India was getting ready to privatise the sector as IR was making losses and looked unsustainable as a part of the public sector. However from 2006, IR has been reporting huge profits (\$3.5 billion profit in 2006 and \$6 billion profit in 2008) (refer to **exhibit 3** for IR's financial performance). IR would not have achieved this turnaround without its true assets: its people. The role of personnel managers, employees and trade unions in this success was noted to be a remarkable one. The three major 'turnaround' strategies adopted by IR are 'Retrenchment', 'Repositioning' and 'Reorganisation'.

Retrenchment includes sub-strategies like quitting difficult markets, deleting unprofitable product lines, selling assets, outsourcing and downsizing. It also includes divesting assets and cutting costs—the foundations of business recovery. Hence, the central element of a retrenchment strategy is emphasis on cutting costs and raising efficiency. The focus of Repositioning is on revenue-raising. The central element of the repositioning strategy is that it generates revenue. It is, therefore, an entrepreneurial strategy that involves several sub-strategies such as moving into new markets, seeking new sources of revenue, developing new products and altering the mission and image of a company. It also emphasises altering the way customers, suppliers and creditors view the organisation. Reorganisation includes sub-strategies such as changes in planning systems, the extent of decentralisation, styles of HR management or organisation culture. It may also include replacement of leadership and other senior managerial staff. Turnaround literature has mainly focused on how the top leader and other senior managerial staff exert a positive influence on organisational recovery. Similarly, a wider overhaul of HR strategy by employing staff with key skills is found to lead to, among others, financial performance enhancement.

Depreciating Social Capital Inventory

Over the years there has been immense pressure on the IR to reduce costs on staff, its social capital. The IR have been very careful and have systematically and strategically planned its manpower accordingly. For example, they have accounted for reduction of staff on payroll from about 1.58 million in 1999 to about 1.41 million by 2006, down by 0.17 million or 10 percent. This resulted in the decline of overall expenditure by at least \$431.22 million in 2006, compared to what it would have been had the staffing levels been comparable to those in 1999. In 1998, due to the impact of the Fifth Pay Commission, the expenditure on staff and pension payments increased by almost 35 percent in just one year. To accomplish this over time was commendable as there did not want to have large cuts and also it was challenging as the management had to confront the trade unions. Thus, given the size, scale and vastness of its operations, it was commendable how this cost on ‘staff’, its ‘social capital’ was managed.

Pay rise versus staff numbers: In 1998, due to the impact of the Fifth Pay Commission, the expenditure on staff and pension payments increased by almost 35% in just a year (as shown in **exhibit 4**). Over the years, IR has reduced the staff on payroll by 10%, from about 1.58 million in 1999 to about 1.41 million in 2006. This resulted in the decline of overall expenditure by at least \$431.22 million in 2006 but also reduced its social capital inventory accrued over the years.

Lower employee satisfaction towards outsourcing payroll: The Ministry of Railways planned to procure a Human Resources Management System (HRMS) and other modules to integrate and automate its payroll, accounting and pension functions to manage its staff better. The organisation plans to spend around \$1.5 billion over the next two to three years on technology. IT giants such as Wipro and Tata Consultancy Services were expected to compete for this contract. Employees disagreed and exhibited resistance with outsourcing the payroll due to fear of job losses and redundancies.

Systematic Workforce Planning in line with rapid growth: IR has witnessed dynamic changes in technology and modernisation, electrification, computerisation, mechanisation of track maintenance, etc. These were taking place at an electric pace, and to meet the challenges of its traffic requirements and changing environment, systematic manpower planning was seen to be essential. Post-automation in recruitment and selection process, it became more transparent, leaving less scope for corruption and malpractice. In addition, electronic media enabled better communication of current job openings/vacancies as they were posted on IR website. IR carries out a category-wise analysis of staff to identify surplus staff and to arrange manpower. This, as one officer puts it, “adjusts the surplus in one category to other categories, where there is demand”. Another officer said manpower planning “ensures that existing manpower is utilised to the maximum possible extent”. It was also learnt that due to automation and modernisation, reduction in total employee strength has been approximately 1% per annum”. Thus, according to an officer, “the total employee strength on the rolls has reduced from 1.7 million employees in 1999 to 1.4 million in 2009 and is projected to reduce to 1.0 million by 2012”.

Enterprise Resource Planning (ERP) System: Information and Communication Technology (ICT) components that are used to improve the transportation system fall into three categories: (1) automation technology (sensors and controllers), (2) communication technology, and (3)

information technology (hardware and software systems) which can be built on top of the underlying automation and communication systems. Ministry of Railways has recently initiated a move to automate all in-house operational and personnel practices, eliminating the age-old manual and paper-based system of maintaining employee records. It proposes to automate the entire IR processes, with a centralised ERP system. Some of the recommendations of this proposal are to automate/computerise: Annual Confidential Report (Performance Appraisal Report), Leave Management, House Building Advance loans, Provident Fund Advances, Pay Bill Processes, Promotion Processes, Training Management, PC/Car/Scooter Advances, Recruitment, Transfers, Grievances, Penalties, Retirement Management, Staff Benefit Fund, Court Cases, Holiday Homes, etc.

As in any organisation, automation and change leads to uncertainty, it was no different for the IR. This uncertainty created tension between employees and the management. However, the context for the need to do automation was important and the communication of this 'need' to employees by the management was paramount. In the case of the IR, management through the CPO, made all information transparent and this helped in easing the tensions to certain extent between the employees and trade unions. Thus, the communication on the need for automation was very clear. Modernization and generational change to assure safety, improve productivity, take advantage of advanced technology, respond to ever increasing demand and meet inclusive growth aspirations of the country were the benefits that can be harvested on automation. Moreover HR automation was part of the wider strategy by implementing ERP in 15 key areas related to Tracks, Signalling, Stations and Terminals, PPP, Land, Dedicated Freight Corridors, Information and Communication Technology, Indigenous development, Safety, Funding, Human Resource and Organization. The CPO at IR were also proactive in the process of change due to automation by asking the following questions:

What are IR employee strengths and how can they benefit both the employee and the company- post automation?

What are other potential roles that can fit in with the employees skills if this current role is to be automated?

How can management facilitate more job-satisfaction within a new role?

What are other areas of tension caused due to automation that must be addressed?

The ministry proposes to make this automation system user-friendly and deploy it in three languages, English, Hindi and the respective regional language of the state, for example, Marathi in Maharashtra. This will bring about integration of data at a national level. Potential also exists to extend the ERP system to passenger demand forecasting, timetabling, integrated coaching rake scheduling, scheduling of terminal facilities, optimisation of coach-crew allocation, and locomotive allocation optimisation. Advance data analytics and best-in-class inventory management system can be deployed for cost savings. Joint working Group comprising of cyber experts, representatives of Indian Computer emergency response Team (CIRT-in), National Critical information infrastructure Protection Centre (CERT-in) and railway professionals needs to be set up to address the critical issue of cyber security. Currently, each division or

headquarters have its own in-built internal Personnel Management system. The Railway Board plans to commence operations of the ERP system by planting computer Kiosks at various stations and terminals across India. This work has already commenced with creation of employee-related service kiosks in various divisions. These kiosks allow the employees to easily access their service-related information instead of approaching the personnel department. Similar to the reaction to payroll outsourcing, resistance were exhibited by employees to this system due to fear of job losses and security.

Way Forward – Sustaining the Social Capital Inventory

According to the Government of India, the Indian Railways are in urgent need for modernization and generational change to assure safety, improve productivity, take advantage of advanced technology, respond to ever increasing demand and meet inclusive growth aspirations of the country. Based on this assessment, the IT arm of Indian Railways - Center for Railway Information System (CRIS) have formulated a strategy to implement ERP. In the division of Human Resources, the following strategy were planned to be implemented.

1. Install and operationalize immediately modern Computerized Human Resource Management System with data base and inventory/Resume of all present employees and skills required to meet modernization plan
2. Reduce and gradually eliminate induction of unskilled staff
3. Create and impart specialized courses in partnership with academic institutions and others especially for Vocational Education, Supervisors and Management
4. Launch a series of in-service training programs immediately
5. Rationalize and consolidate multiple services and cadres without sacrificing the benefit of specialization and business capabilities
6. Offer graduate programs in Railway technology at Indian Institutes of Technology (IITs) and Railway management at Indian Institutes of Management (IIMs)
7. Enable lateral recruitment from market for specialist functions
8. Upgrade ICT skills of present officers and employees substantially
9. Review and Restructure existing training institutions for improving ecosystem and Modernization
10. Review Railway Health System separately to meet aspirations of Railway Families and Modernization plans
11. Create a system of reward for collective performance and variable pay linked to incremental surplus generated by various units

In hindsight to CRIS initiatives and automation, IR was gradually depreciating on its social capital inventory which was accrued over decades by the organization through its service to society by providing large employment opportunity. As IR was already exhibiting downward trend in the number of employees in the organization, insecurity among employees increased. To overcome this feeling of insecurity, the CPO's of different zones of IR had to revisit the organizations present and future planned HR strategies to make relevant modifications wherever necessary to improve and sustain the social capital inventory accrued over decades.

Exhibits

Exhibit 1(a): Facts on Indian Economy and its Transportation Sector.

Title	Details
Indian economy	In 2013, \$1.8-trillion Indian economy suffered its worst slowdown in over a decade with growth below 5 per cent for four straight quarters. Average growth for first three quarters of 2013 stands at 4.6 per cent, the slowest since 2002.
General transportation	<p>Total passenger traffic is expected to grow at about 15 per cent per annum. Growth in rail passenger traffic is expected to be around 9 per cent per annum, and for road traffic, 15.4 per cent.</p> <p>Rail and roads dominate the transport system in India, carrying about 87 per cent of the total freight traffic in the country in 2007-08.</p> <p>In 2007, Indian transportation sector contributed about 5.5 percent to the nation's GDP, with road transportation contributing the lion's share.</p> <p>India's Eleventh Five Year Plan identifies various deficits in transport sector which include inadequate roads/highways, old technology, saturated routes and slow speed on railways, inadequate berths and rail/road connectivity at ports and inadequate runways, aircraft handling capacity, parking space and terminal building at airports.</p>
Roads	<p>Roads carry almost 90 percent of the country's passenger traffic and 65 percent of its freight.</p> <p>The density of India's highway network is similar to that of the United States and much greater than China's or Brazil's.</p> <p>Total road length increased from about 4 million km to 4.7 million km between 1951 and 2011. Surfaced roads increased from 1.57 million km to around 2.5 million km. Surfaced road length accounted for 54 per cent of total road length in 2011, compared with 39 per cent in 1951.</p> <p>40 percent of India's villages do not have access to all-weather roads.</p> <p>Road density in India is now nearly 1.42 km per sq km, which compares favourably with many other countries.</p>
Ports & Shipping	<p>India's maritime sector comprises ports, shipping, ship-building and ship repair, as well as inland water transport systems.</p> <p>India has 12 major and close to 200 minor and intermediate ports along its more than 7500 km long coastline.</p> <p>India has one of the largest merchant shipping fleets among developing countries and is ranked 16th in the world in terms of gross tonnage under its flag.</p> <p>In 1992, the shipping fleet possessed 441 ships with a total tonnage of 6.3 million GT which increased to 1,154 ships and 10.4 million GT in 2012, indicating a CAGR of 4.9 per cent and 2.6 per cent respectively.</p> <p>95 per cent of India's trade volume (around 70 per cent in terms of value) is moved by sea.</p> <p>Inland water transportation remains largely undeveloped despite India's 14,000 kilometers of navigable rivers and canals.</p>

	<p>During 2011-12, total cargo handled by Major and non-Major ports was 914 million tonnes with the 13 Major Ports handling nearly 61 per cent of it—560 million tonnes.</p> <p>The period from 1990-91 to 2011-12 witnessed an overall traffic CAGR of 8.6 per cent with traffic at the Major Ports and non-Major Ports growing at 6.4 per cent and at about 18 per cent respectively.</p> <p>Utilisation at Major Ports was about 80 per cent in 2011-12, way above the identified optimum capacity utilisation of 70 per cent, implying that the cargo evacuation facilities are under great strain. The gap between the growth in traffic and growth of port capacity is apparently widening. An expansion in total capacity by about 7.7 per cent by the end of the 12th Plan from 2011-12 levels is suggested.</p>
Aviation	<p>India has 125 airports, including 11 international airports. India has emerged as the world's ninth largest civil aviation market.</p> <p>Passenger throughput at Indian airports during 2011-2012 was 162 million, of which 122 million or about 75 per cent were domestic passengers and the rest international.</p> <p>Total freight traffic handled by Indian airports has increased at a CAGR of about 9.2 per cent in the last 11 years to reach 2.28 MMT by 2012.</p> <p>The air traffic density (1000 passengers per million urban population) in India is very low at 72. China (282) is four times higher; Brazil (231) three times; Malaysia (1,225) 17 times, USA (2,896) 40 times, and Sri Lanka (530) more than seven times higher. China's domestic traffic is five times that of India's.</p> <p>India has an aircraft for every 2.89 million people in comparison to 1.14 million in China.</p> <p>In terms of freight carriers, out of 15,750 freight carriers globally, India has just 13 scheduled and 149 non-scheduled operators.</p>
Railways	<p>Indian railways is the third largest railway network in the world under a single management with 7,500 railway stations, 9,549 locomotives, 55,339 passenger coaches, 239,321 freight cars and 64,600 route km. It transports 2.8 million tonnes of freight traffic and 25 million passengers every day.</p> <p>In 2007, Indian railways carry some 17 million passengers and 2 million tonnes of freight a day.</p> <p>Total Transport System Study (TTSS) carried out by RITES for the Planning Commission in 2007-08 calculated that railways' share in total inter-regional freight traffic came down from 89 per cent in 1951 to 65 per cent in 1978-79, 53 per cent in 1986-87 and 30 per cent in 2007-08</p>

Source: (a)<http://go.worldbank.org/FUE8JM6E40>; (b)<http://www.businesstoday.in/topics/year-2013:-roundup/economy-logged-lowest-decadal-growth-rate-in-2013/story/201787.html>;
(c)http://planningcommission.nic.in/reports/genrep/NTDPC_Vol_01.pdf

Exhibit 1(b): Share of Transport Sector in Overall GDP (%).

	2008-09	2009-10	2010-11	2011-12	2012-13
Overall Transport of which	6.6	6.6	6.5	6.6	6.7
Railways	1.0	1.0	1.0	1.0	0.9
Road Transport	4.7	4.7	4.6	4.8	4.9
Water Transport	0.2	0.2	0.2	0.2	0.2
Air Transport	0.2	0.2	0.3	0.3	0.3
Services incidental to transport	0.4	0.4	0.4	0.4	0.4

Source: Indian Railways-Lifeline of the nation. (2015). A white paper. Available at http://www.indianrailways.gov.in/railwayboard/uploads/directorate/finance_budget/Budget_2015-16/White_Paper-_English.pdf (last accessed on 04 April 2016)

Exhibit 2: Expenditure on wages, growth rate and staff numbers for the last decade.

	Rly. Staff College	Division	Zonal/Prod.Unit HQ	Workshop/ Other Units	Railway Board	Government of India (Under Central Staffing Scheme)
Junior Scale (PB3+ INR 5400)	IRPS(Probationer)/ APO/ Asst. Professor	APO ¹	APO	APO	--	--
Senior Scale (PB3+ INR 6600)	Professor	DPO ²	SPO ³	WPO/SPO	Under Secretary	Under Secretary
Junior Administrative Grade (JAG) (PB3+ INR 7600)	Professor	Senior DPO	Deputy CPO ⁴	Deputy CPO	Deputy Secretary	Deputy Secretary
Non Functional Selection Grade (NFSG) (PB4+ INR 8700)	Professor	Senior DPO	Deputy CPO	Deputy CPO	Director	Director
Senior Administrative Grade (SAG) (PB4+ INR 10,000)	Senior Professor	--	CPO	CPO	Executive Director	Joint Secretary
Higher Administrative Grade (HAG) (67000-3%-79000)	--	--	CPO	CPO	Adviser	Additional Secretary

1- Assistant Personnel Officer (APO); 2- Divisional Personnel Officer (DPO); 3- Senior Personnel Officer (SPO); 4- Chief Personnel Officer (CPO).

Source: Available at <http://www.irps.in/aboutirps.html>. Last accessed on 27 Dec 2015.

Exhibit 3: Financial performance in Indian Railways.

Year	Gross Revenue Rs. in Crore	Net Revenue Rs. In crore	Total Cost Rs. in Crore	Number of Railway Stations	Human Resource Cost Rs. in Crore	Gross Revenue Per Employee in Rs.	Human Resource Cost per Employee in Rs.
1950-51	263.3	47.56	215.74	5976	113.8	2882	1246
1960-61	460.42	87.87	372.55	6523	205.2	3979	1774
1970-71	1006.95	144.73	862.22	7066	459.9	7327	3347
1980-81	2703.48	127.49	2575.99	7035	1316.7	17195	8375
1990-91	12451.55	1113.78	11337.77	7100	5166.3	75381	31276
2000-01	36010.95	1071.23	34939.72	6843	18841	233035	121924
2008-09	81658.98	9174.45	72848.53	7030	39940	589170	288167
2009-10	86963.97	5544	81419.97	7083	51719.4	6384.55	3797.03
2010-11	94535.63	6346.14	88189.49	7133	53706.9	7117.57	4043.59

Source: (a) Indian Railways Statistical Summary-2011; (b) Indian Railways year books from 1950-51 to 2010-2011.

Exhibit 4: Expenditure on wages, growth rate and staff numbers for the last decade.

Year (ending March)	Wage Bill (\$ million)	Growth rate (%)	Staff Numbers (thousands)	Wage per employee per annum (\$)	Growth rate (%)
1996	2018.758	15.92	1587	1,265	-
1997	2267.033	12.30	1584	1,424	12.51
1998	3048.922	34.49	1579	1,922	34.92
1999	3365.804	10.39	1578	2,124	10.46
2000	3512.009	4.34	1577	2,218	4.41
2001	4062.398	15.61	1545	2,616	18.07
2002	4142.755	1.98	1511	2,730	4.27
2003	4293.834	3.65	1472	2,905	6.39
2004	4512.505	5.09	1442	3,117	7.28
2005	4862.656	7.76	1424	3,401	9.12
2006	5164.726	6.21	1412	3,643	7.11
2007	5208.868	0.85	1398	3,729	2.36
2008	5582.654	7.17	1395	3,992	7.05

Source: Reserve bank of India Bulletins, Railway Budgets & Reports (Note: These are approximate figures with exchange rate approximately around 1 USD = 45.6498 INR (as per 2011)).