PUBLIC-PRIVATE PARTNERSHIP CRITICAL EVALUATION OF ITS ECONOMIC GROWTH AND OPPORTUNITIES IN RAILWAY SECTOR IN INDIA

Ms. Barnasree Chatterjee

Department of Business Administration, The Bhawanipur Education Society College, India

ABSTRACT

It is a very obvious fact that India's creaking infrastructure requires urgent modernization to provide an impetus to industrialization and planned urbanization. PPP in Indian railways are the only mechanism to move high volumes of bulk commodities from centers of production to the centers of need at the right time thereby combining the skills and resources of both public and private sectors through sharing of risk and responsibilities. In February 2016 India announced an ambitious rail budget of overcoming challenges - Reorganize, Restructure Rejuvenate Indian Railways: 'Chalo, Milkar Kuch Naya Karen' with three pillars of the strategy i.e. Nav Arjan - New revenues, Nav Manak - New norms, Nav Sanrachna - New Structures. Indian Railways is the world's largest passenger carrier where 100% FDI in the railway infrastructure segment. Indian railways being the 4th largest rail freight carrier in the world envisages an investment of USD130.76 billion in next five years with 1.5 million strong workforces. Increasing urbanization coupled with rising incomes is driving growth in the passenger segment where both passenger and freight traffic volume have increased steadily in the past five years. Therefore, Indian Railways has already witnessed considerable growth in PPPs. Government is also providing various financial support by way of state incentives, export incentives, area based incentives, tax incentives, R&D incentives for setting up projects in special areas such as North East, Jammu & Kashmir, Himachal Pradesh, Uttarakhand etc. This paper will try to critically evaluate the various reasons to invest in Indian Railways, the growth drivers, new ways to finance projects, the various investment opportunities for modernizing India's railway infrastructure and deliver better services.

Keywords: FDI policy, rail budget, growth drivers, state incentives, tax incentives

I.INTRODUCTION

Indian Railways is one of the most studied institutions on the planet. For almost every conceivable question that can be asked, there already exists a comprehensive and rigorous report that lays out the facts and indicates the answers. What is striking, however, is that there has been little action on the many reports IR has commissioned, both internal and external. The overwhelming sentiment of the Expert Group is that time has run out. Action is overdue. The imperative is to get started fast on a programmer of restructuring and reform the economy is in an auto-pilot mode (showing no signs of slowing down). We have been witnessing a consistent 8% growth in our GDP over the last few years and hence the need for infrastructure to sustain the same has been felt all across the board as the current level of infrastructure is insufficient to sustain such an increase in GDP growth rate.

The Indian Railways is considered the lifeblood of the nation and, hence, the onus of carrying the economy on its shoulder lies with the railways. The boom in the economy has resulted in a dire need of improvement and enhancement of rail infrastructure in the country. As part of the overall strategy of restructuring the railway infrastructure, a major thrust has been given to PPP. The Indian Railways are prima facie encouraging Public-Private Partnership in the capacity enhancing and modernizing exercise. Projects through the PPP model have been started in a few sectors and envisaged in few other areas. This paper is an attempt to assess the degree to which PPP has penetrated the Indian Railways. Has the IR encouraged PPP as it should have been? Which there any friction in bringing in private sector participation in the IR? If yes, where is the friction? Does the government also have some genuine concerns? This paper tries to answer these questions in addition to suggesting criteria to evaluate projects to be implemented through PPP.

II. LITERATURE REVIEW

Kumar Karan (2008), studied on Public-Private Partnership in Indian Railways indicates that The Indian Railways should focus on the core activities of running and operating the trains. The prospects remain bleak for any major policy change due to an extremely weak record of enforcement of contracts in the long run. **G. Raghuram (2013)** studied on Turnaround of Indian Railways: A Critical Appraisal of Strategies and Processes indicates that the sums required to build India's high-speed rail network are astronomical and it is difficult to see how the private sector can take on that risk without significant support from Government to mitigate those risks that are essentially outside the control of the private sector. **Chakrabarti Ran (2015)** analyzed that key to that aspiration is the ability to move large numbers of people and goods effectively and efficiently from point-to-point and the ability of the rail network to connect to the very heart of metropolitan centres makes it an invaluable form of transportation. **Paul Posner, Shin Kue Ryu and Ann Tkachenko (2009)** highlighted that the use of private financing and delivery for public services has advantages. Private efficiencies can deliver real benefits that might overcome higher financing and transaction charges. The risk sharing and bundling of all phases of capital services may very well promote incentives to achieve improved outputs with lower costs.

III.OBJECTIVES OF THE STUDY

- To study the concept of Public Private Partnership.
- To study the Current plans on PPP in Indian railway.
- To identify their role in the economic development of the country.
- Analysis of various opportunities in Public Private Partnership in IR
- To analyze the growth of railway sector in Indian context.

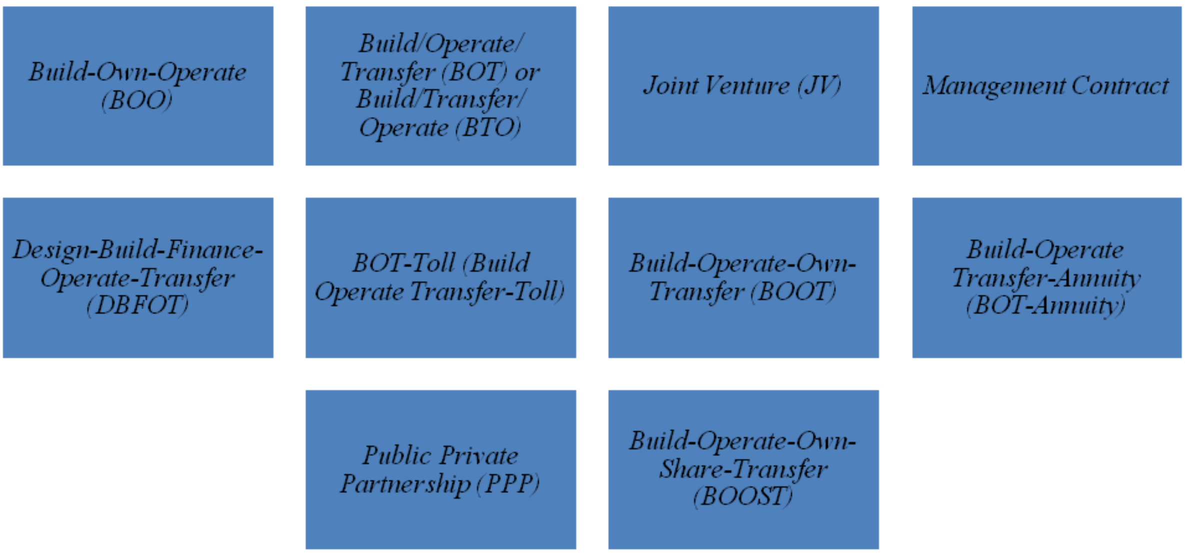
IV. RESEARCH METHODOLOGY

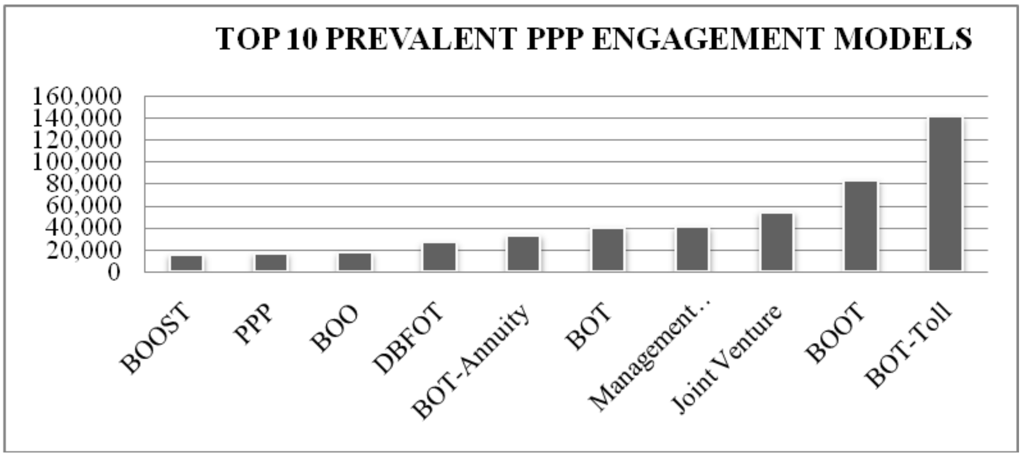
This study is based on secondary data. Data has been collected from books, websites, journals, newspaper and magazines. Data were collected to understand and gain a deeper appreciation of the role of ethics and corporate governance in building successful businesses.

V.NEED FOR PPP IN INDIAN RAILWAYS

- PPP model is very much essential for the growth of Indian railways in order to survive as an ongoing transportation organisation.
- It requires substantial investment in order to keep pace with 8% growth in the economy. Therefore it is a gateway to increase the volume of investment throughout the country as a whole and increasing the operational efficiency as well as rendering quality public services.
- PPP is also required to modernize and expand its capacity to serve the emerging needs of the growing economy. Indian railways have to widen the rail network to upgrade and improve connectivity to face competition with road and aviation sector.
- PPP helps to increase the availability of services and to do so with greater efficiency than could be achieved using the traditional public sector approach.
- PPPs allow access to the substantial financial resources of the private sector and enable the public sector to benefit from private sector technical expertise and efficiency.
- PPPs enable the public sector to transfer project related risks to the private sector which can reduce the potential for government cost overruns from unforeseen circumstances during project development or service delivery.
- Public Private Partnership or PPP provides a way to initiate the implementation of infrastructure and urban development projects.
- PPP projects helps to cross transfer ideas, skills, knowledge, knowhow, expertise which creates an innovative effect as well as advances their efficiency.
- PPP helps in improving infrastructure and promise a better design, technology, construction, operation and service delivery.
- PPP plays a major tool for creating employment opportunities by developing the services sector.

VI. TYPES OF PPP MODELS

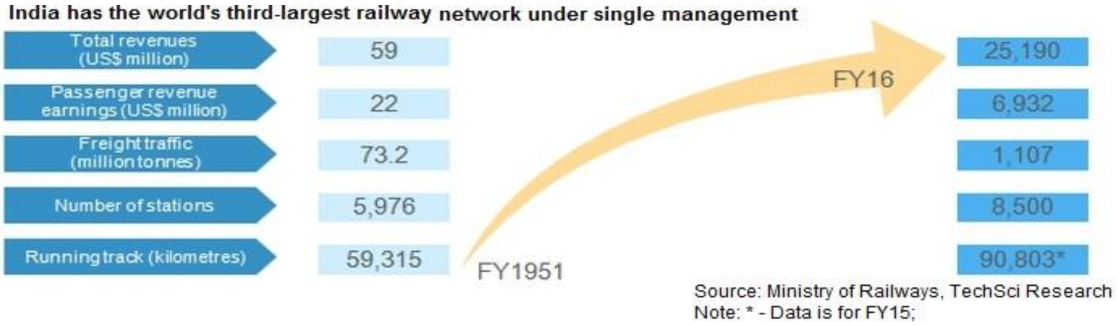




The above figure shows the most active PPP Engagement models in India as per BathuDun Consulting, Bangalore, India (a Management Consulting company focused on Consulting, Analytics & Training in Bids, Proposals & Tenders)

VII. FEW STATISTICS & DATA ANALYSIS

- *Indian Railways is the world's third largest rail network with network span of more than 66,030 kms.*
- *It has a record of 1.3 million strong work force in Indian Railways.*
- *Indian railways carried around 8224.12 million passengers in 2014-15 which is about 1.430 million higher than the passengers of the world put together.*
- *It is the largest passenger carrier and the fourth largest rail freight carrier in the world*
- *Growing industrialization across the country has increased freight traffic over the last decade.*
- *Both passenger and freight traffic volumes have increased steadily in the past five years. While passenger traffic witnessed a CAGR of 2.6% during 2010-2015, freight traffic has registered a marginally lower CAGR of 4.3% during the same period.*
- *Indian Railways runs 22,300 train carrying over 23 million passengers daily and connecting more than 7137 stations.*
- *Indian Railways total track length is 117996 Km. It also comprises 68,558 coaches, more than 2, 54,006 wagons and 1.3 million employees.*
- *Increasing urbanisation, rising income is driving growth in the passenger segment.*
- *Indian Railways runs more than 9202 freight trains, carrying about 3 Million Tonnes of freight every day.*



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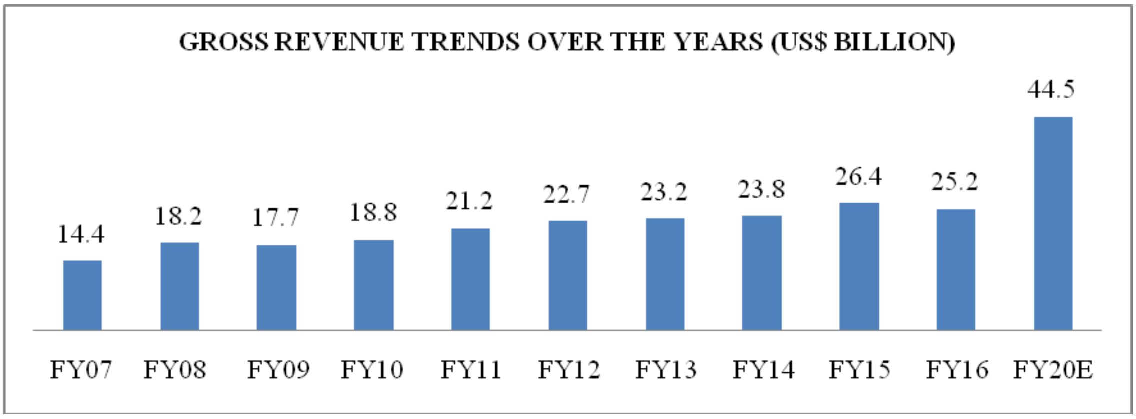
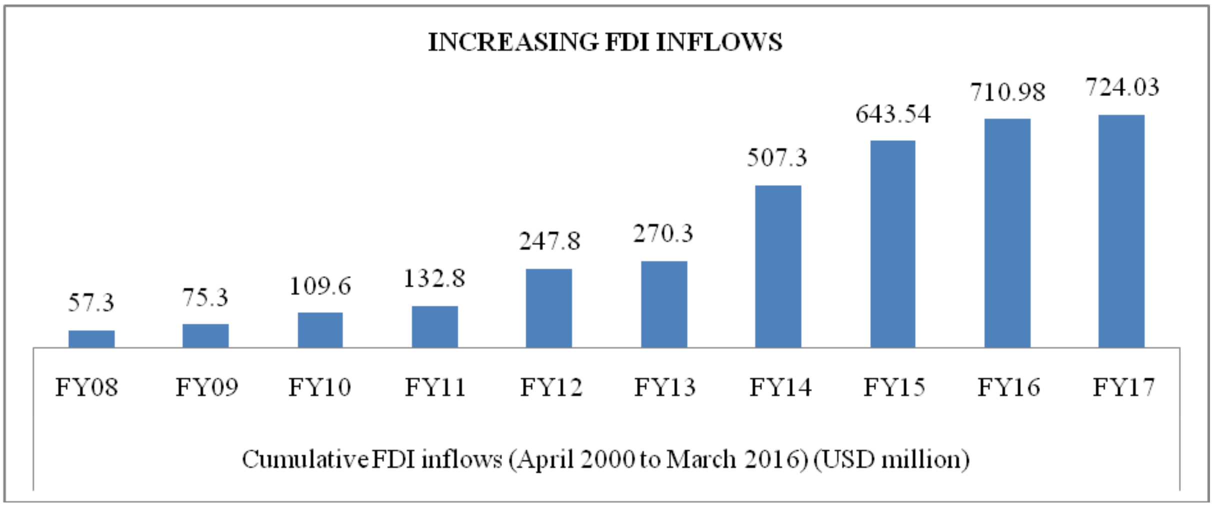


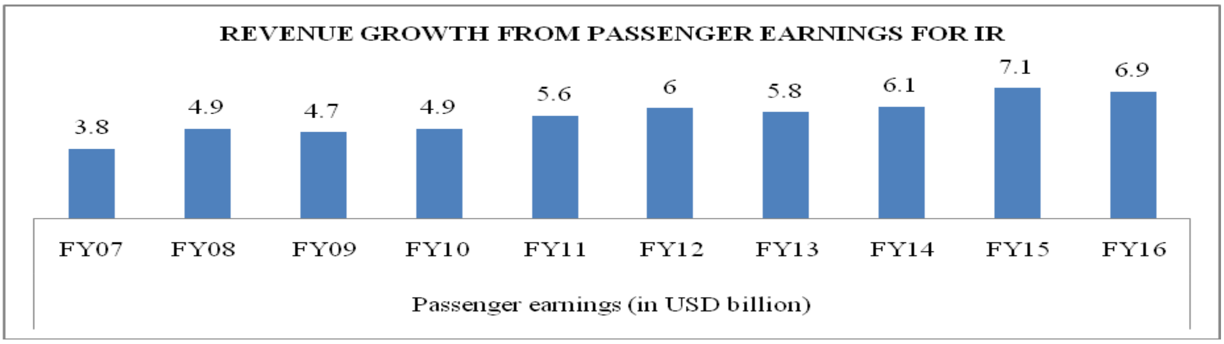
Source: Vision 2020, Ministry of Railways, Tech Sci Research; Notes: E- Estimate, FY- Indian Financial Year (April – March) It is clear from the above figure that the revenue growth during FY07–16 increased at a CAGR of 6.4 per cent to US$ 25.2 billion in FY16, and is estimated to expand at a CAGR of 9.07 per cent to US$ 44.5 billion by the end of FY20. Indian Railway will touch the revenue of US$ 44.5 billion by 2020, with improvement in the economy and increasing industrial activity

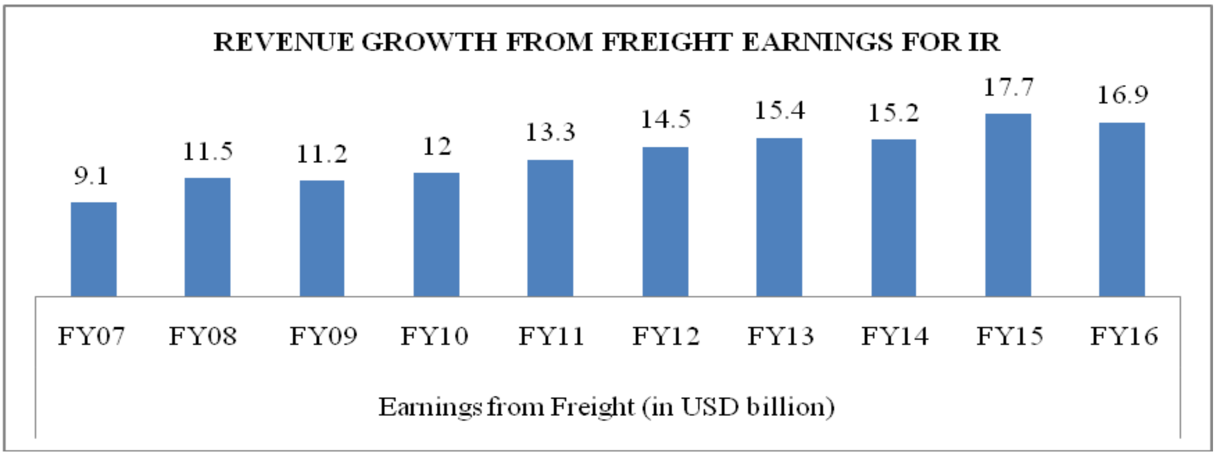


Source: Department of Industrial Policy & Promotion, TechSci Researc

Notes: FDI – Foreign Direct Investment, Note: FY17 – Data Till September 2016

Since FY08, cumulative FDI inflows into the sector has increased five-fold and from April 2000 to September 2016, FDI in Railways related components industry stood at USD724.03 million, in India

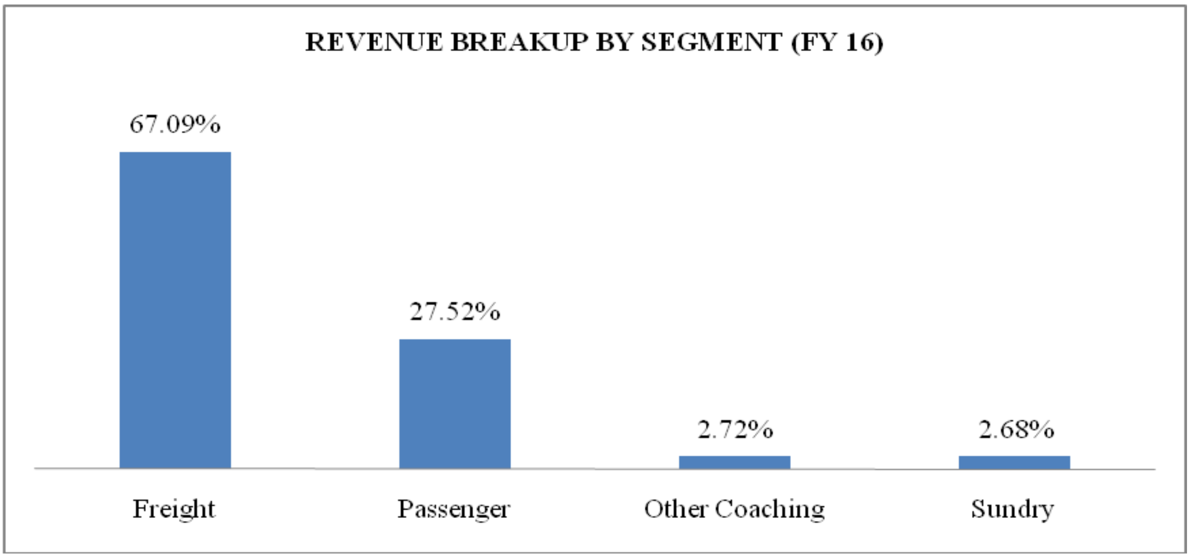




Source: Ministry of Railways, TechSci Research

Notes: CAGR – Compound Annual Growth Rate, FY – Indian Financial Year (April–March), F – Forecast

In the last eight years, revenues from the passenger segment expanded at a CAGR of 6.9 per cent, with the total revenue earnings in FY16 totalling to around USD6.9 billion. Indian Railways generated USD16.9 billion in earnings from commodity freight traffic during FY16. As of February 2017, Indian Railways to manufacture semi high-speed, 160 kmph "world-class" train under Make in India initiative,comprising 16 fully air-conditioned coaches. The new train will be manufactured at half of the import cost, at the Integral Coach Factory.



Source: Railway Budget 2015-16, Railway Budget 2016-17, Ministry of Railways, TechSci Research

Note: Other Coaching includes service coaches such as pantry cars, parcel vans, mail vans, etc.

Freight remains the major revenue earning segment for the Railways, accounting for 67.09 per cent of total revenues in FY16, followed by the passenger segment

VIII. GOVT. POLICIES ON PPP IN INDIAN RAILWAY

100% FDI under automatic route is permitted for domestic/foreign direct investment (FDI) in construction, operation and maintenance in the areas like suburban corridors through PPP,vhigh-speed train projects, dedicated freight lines, rolling stock including trains sets and locomotive/coaches manufacturing and maintenance facilities, railway electrification, signalling system, freight terminals, passenger terminals, testing facilities and laboratories, non-conventional sources of energy, railways technical training institutes, mechanised laundry, bio-toilets, technological solution for manned and unmanned level crossings, technological solutions to improve safety and reduce accidents , open Wi-fi for 400 more railway station, Wagon-making scheme to be reviewed to make it easier for private investment; speed on nine corridors to be increased from 110-130 to 160-200 kms per hour

8.1 Growth Potential in Indian Railway

Government has taken up an accelerated program of investment in building rail infrastructure in country. This includes several initiatives, such as, DFCs that can parallel the golden quadrilateral, along with associated industrial corridors, growing metro projects, etc. The following planned actions point to the growth potential of the sector:

- The share of private investment in MRTS projects is expected to increase from 13% during 2007-12 to 42% during 2012-17.
- Rail tourism is on the anvil, with emphasis on the introduction of eco-tourism and education tourism in the North-eastern states.
- Over the next five years, IR envisages an investment of approximately USD 130.76 billion
- Investments expected in metro rail networks in India: USD 42 billion by 2020
- The frieght traffic is expected to reach 1 2,165 million tonnes by FY 2020
- Projects for rail connectivity to many ports and mines are being developed under participative model
- 1000 MW solar plants are to be set up by the developers on Railway/private land and rooftop on railway buildings at their own cost in next five years
- Governments is implementing projects such as the Western and Eastern Freight Corridor, Chennai-Bengaluru Industrial Corridor, Amritsar-Delhi-Kolkata Industrial Corridor, Mumbai Elevated Rail Corridor and High Speed Corridor;
- Railways have launched new MCAs recently for many of the participative models and have also issued guidelines for the same. Projects for rail connectivity to many ports and mines are being developed under participative models

8.2 Growth Drivers

- The long-term strategic plan of the Ministry of Railways is to construct six high-capacity, high-speed dedicated freight corridors along the Golden Quadrilateral and its diagonals.
- Railways will facilitate connectivity to new and upcoming ports through private participation.
- The development of identified stations to international standards with modern facilities and passenger amenities on the lines of newly developed airports, through PPP mode
- Indian Railways proposes to modernise its logistics operations by setting up logistic parks that provide for warehousing, packaging, labelling, distribution, door-to-door delivery and consignment tracking in order to achieve better efficiency.
- During the period of 2012-17, Mass Rapid Transit Systems (MRTS) projects are being planned in various cities through the PPP model.

XI. INVESTMENT OPPORTUNITIES IN INDIAN RAILWAYS

The following are the major investment opportunities in Indian railways:

- High speed train projects.
- Railway lines to and from coal mines and ports.
- Projects relating to electrification, high-speed tracks and suburban corridors
- Dedicated freight corridors.
- The re-development of railway stations.
- Power generation and energy-saving projects.
- Freight terminals operations.
- Components manufacturing
- Infrastructure projects
- Setting up of wagon, coaches and locomotive units
- Gauge convers
- Network expansion**.**

9.1 Current Plans of Ppp in Indian Railways

Turning to current plans in India, INR 1 billion (USD 16 million) has been earmarked by the Government for the preliminary construction of the proposed 573-kilometer Mumbai to Ahmedabad high-speed line (the "Mumbai-Ahmedabad Line"). In December 2014, the Government of India announced its intention to allow Indian Railways to float tenders for 20 projects worth almost USD 15 billion for private investment in:

❖ *The Dedicated Freight Corridors:* The World Bank and the Dedicated Freight Corridor Corporation (the "DFCC") announced in December 2014 that it had signed a USD 1.1 billion loan agreement which will finance the 393 kilometre second phase in Uttar Pradesh, part of the 1,800 kilometre eastern dedicated freight corridor from Ludhiana (in the Punjab) to Dankuni (near Kolkata) (the "Eastern Corridor"). The DFCC is a special purpose vehicle incorporated for the planning, construction, operation and maintenance of the Eastern Corridor and the 1,500 kilometer western dedicated freight corridor from Dadri (near Delhi) to Jawaharal Nehru Port, (near Mumbai) (the "Western Corridor").

❖ *Rolling Stock:* Public private participation in the manufacturing of rolling stock is not new in India and concession agreements have been granted in the past for the construction of freight wagons. Current plans on the slate in relation to rolling stock include the proposed USD 240 million coach factory in Kolar in Karnataka (one of the last cabinet approved decisions of the Congress led Government in 2014).

❖ *High-Speed Lines*: Two high-speed projects have been identified for public private partnership and foreign investment. The proposed Mumbai-Ahmedabad Line will be executed through either through a DBFOT Model, or otherwise built through inter-governmental agreement. The other proposed high-speed line currently identified is the Chennai-Bangalore-Mysore line.

❖ *Suburban Lines*: Suburban projects on the slate include the 50-kilometer Chhatrapati Shivaji Terminus to Panvel line in metropolitan Mumbai, expected to be executed under the DBFOT Model, costing an estimated INR 140 billion (USD 2.25 billion).

X. CHALLENGES OF PPP IN INDIAN RAILWAY

- There exists no clear roadmap for implementation of PPP in IR
- Political Climate is a big challenge for the PPP in Indian Railways to take place
- A PPP can only be successful if the government can ensure discipline on part of the private player to enforce the contract and thus result in achieving the desired objective but IR does not possess the requisite managerial skills that the current complex business environment calls for.
- Another reason for the slow approach is the fear of emergence of private monopolies
- Another fact accepted by the railways is that a change in the mind-set of the people from top to bottom (from the gang man to the customer) in the organization is required for mainstreaming of the PPP model.

XI. SUGGESTIONS & RECOMMENDATIONS

The PPP model is particularly important in infrastructure projects. In recent years, some of India's — and the world's — best airports have been built through the PPP model. But these are overlooked as the media focuses on some pain points that are inevitable in projects involving Railways, land acquisition, construction, environmental clearances and other contentious issues. It's time to put these issues behind us and focus on reviving the infrastructure sector in India. The following are some of the steps to revive the PPP mpdel in India:

- More public-private partnership projects should get signed
- Restructuring of PPP framework in IR would help revive financially stressed projects and attract private investment.
- IR sector should prepare long term investment and financing plans to identify revenue sources as well as the extent of financing
- IR should kick start construction cycle by boosting public spending which is already under way.
- Minimising speculation on uncontrollable factors
- Analysing the risk involved for PPPs in IR sector and suggesting an optimal risk-sharing mechanism between private investors and govt. to improve capacity building.

XII. CONCLUSION

IR needs urgent modernization to live up to the aspiration to move large numbers of people and goods effectively and efficiently. The current Indian Govt cannot be accused of lacking vision because of Vision 2020 to create a 6,500 km "Golden Quadrilateral" linking Delhi, Mumbai, Chennai, Kolkata with separate high speed lines. As of February 2017, Indian Railways to manufacture semi high-speed, 160 kmph "world-class" train under Make in India initiative,comprising 16 fully air-conditioned coaches. The new train will be manufactured at half of the import cost, at the Integral Coach Factory. But the above can only be achieved through a well thought out concession agreement fairly allocating project related risks. Corporatization of Indian Railways is the best way to take the restructuring of the Indian Railways forward. Non-critical areas in the Indian Railways should be identified and private sector participation should be allowed in the same. The Indian Railways should focus on the core activities of running and operating the trains. The prospects remain bleak for any major policy change due to an extremely weak record of enforcement of contracts in the long run. The IR should also adopt

General Accepted Accounting Principles (GAAP), the role of the Indian Railways Regulatory Authority should be strengthened and it should be allowed to decide the fares to be charged from the passengers with a provision for adequate compensation from the Union Budget for keeping fares cheaper to fulfil its objective of social welfare. Manufacturing of locomotives and wagons should also be through the PPP Model.

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