Re-dimensioning Railways for Retail Traffic

Break-Bulk, LTL/LWL
Aggregation, Consolidation,
Parcels, E-Commerce

Indian Railways: Important Statistics

Particulars/Years	1950-51	2012-13	2013-14	2014-15
No. of Passengers (Million)	1284	8421	8397	8224
Pass. Earnings (In Rs. Cr.)	98.20	31322.84	36532.25	42189.81
Freight Loading (MT)	93	1014.15	1058.81	1101.08
Freight Revenue Earning (In Rs. Cr.)	139.30	83478.83	91570.85	103100.15
Gross Revenue Receipt (Rs. Cr.)	263.30	126181.43	143213.87	161017.25
Working Expenses (Rs. Cr.)	215.74	112565.24	131464.80	144178.76
Excess (Rs. Cr.)	15.05	8266.25	3740.40	7664.94
Operating Ratio	81	90.19	93.60	91.75

Cabinet Summary for March, 2016

Originating (MT)	2014-15	2015-16	2015-16	Shortfall
Commodity	*Actuals*	*Target*	*Actual*	*Diff . To Target*
Coal	545.81	**585.00**	**551.67**	
Raw Mat. For Steel Plants	18.28	**21.00**	**20.30**	
Pig Iron and Finished steel	42.84	**43.50**	**42.47**	
Iron Ore for Exports	112.77	**125.00**	**117.38**	
Iron Ore for Steel Plants				
Iron Ore for other users				
Cement	109.80	**120.50**	**106.07**	
Food grains	55.47	**62.00**	**45.84**	
Fertilizers	47.41	**49.50**	**52.25**	
POL	41.10	**43.25**	**43.96**	
Container Services	48.38	**54.50**	**46.18**	
Other Goods	73.40	**82.00**	**78.05**	
TOTAL	**1095.26**	**1186.25**	**1104.17**	**- 8.46%**

March, 2016
Freight Traffic

Item	Target	Actual (Prov.)	Diff. (%)	Actual Cumulative up to July, 2015 (Prov.)
NET TONNE-KM IN BILLIONS	**61.69**	**56.47**	**-8.46**	**655.60**

March, 2016

No. of Passengers booked (in millions)

	March, 2015	Cumulative up to march, 2015	March, 2016	Cumulative up to March, 2016
Suburban	371.60	4503.73	376.99	4459.38
Non-Sub-urban	315.77	3725.94	302.52	3692.52
TOTAL	687.37	8229.67	679.51	8151.90

Earnings and Working Expenses (Rs. in Crores)

	March, 2016 (Approx.)			Cumulative up to March, 2016		
	Budget proportion	Approx. Actual	Difference	Budget Proportion	Approx. Actual	Difference
Gross Earnings	16429.35	15503.92	-925.43	**167784.02**	**163384.74**	-4399.28
Ordinary Working Expenses	5012.45	6010.39	997.94	**109094.63**	**107709.25**	-1345.38

Indian Railways' Earnings

(Data for Year 2016 and approximate)

- Rs.1,60,000 + Cr
- 65% earning is from Freight business
- **1.2 % earning is from Parcel business**
- 90% freight earnings from Bulk Commodities
- 5% of freight earnings from Container traffic

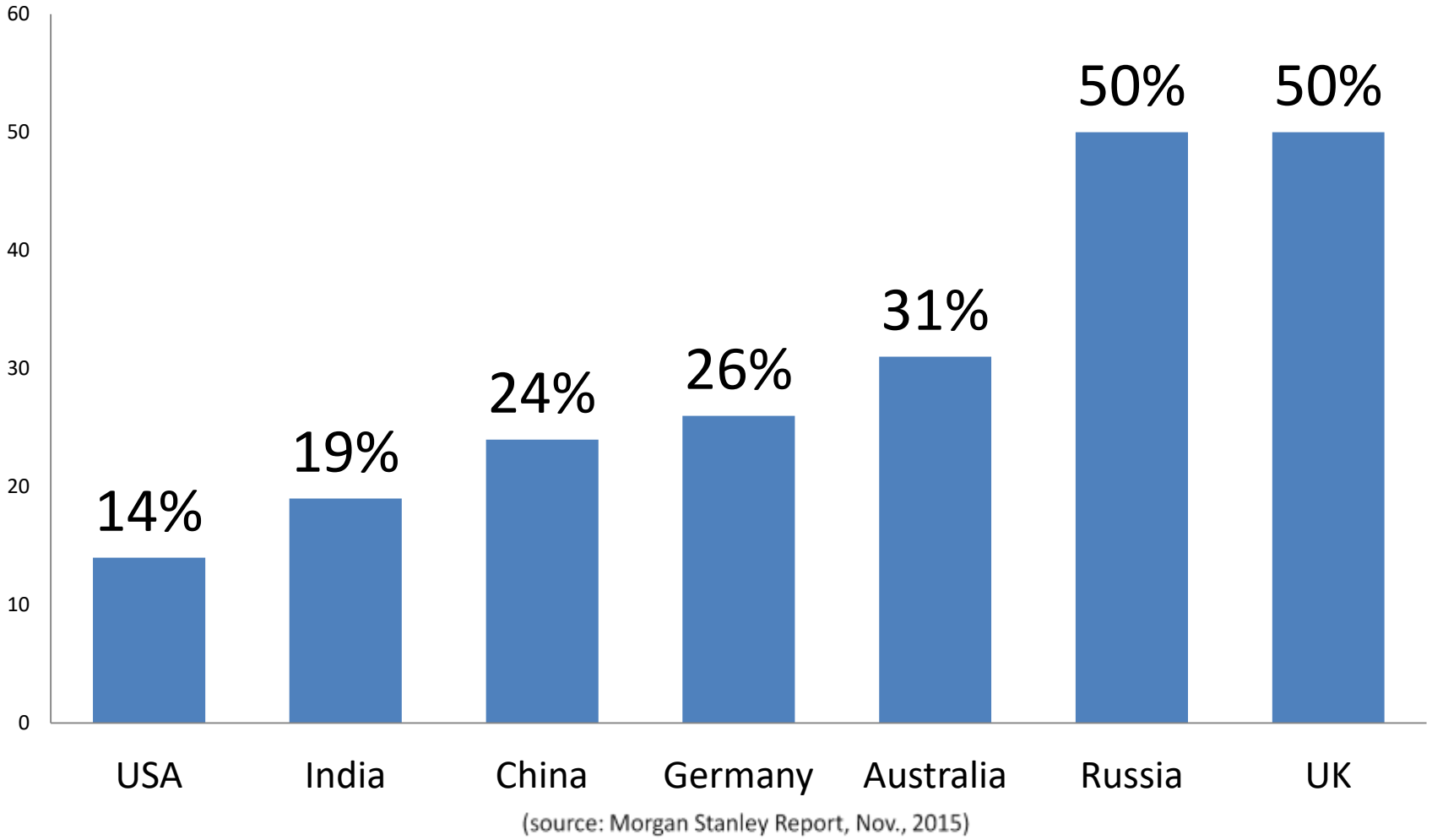
Indian Railways

http://www.indianrailways.gov.in/

Suresh Prabhakar Prabhu

Hon’ble Minister for Railways

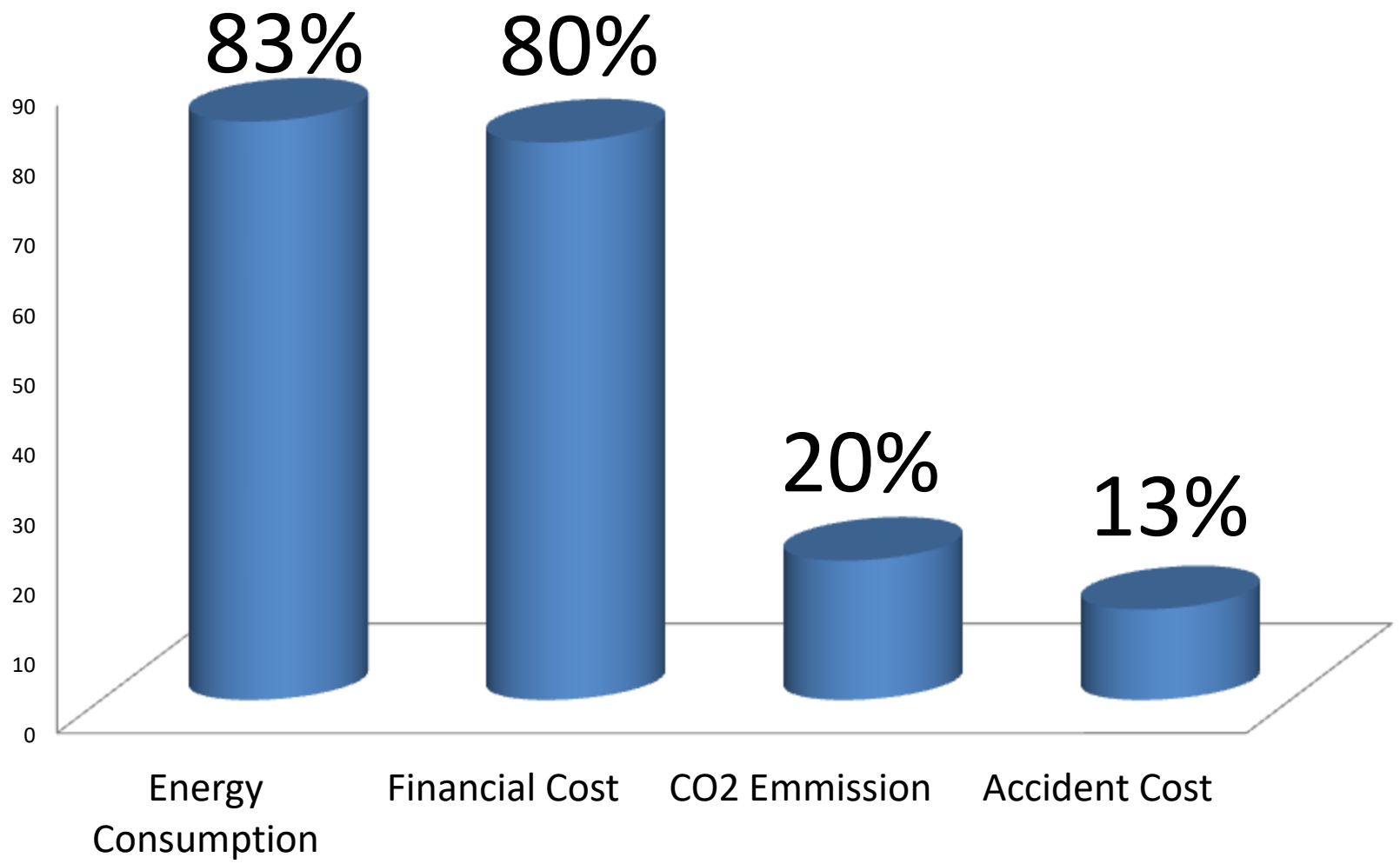
Rail Spending (% of Rail & Road spending), C2013



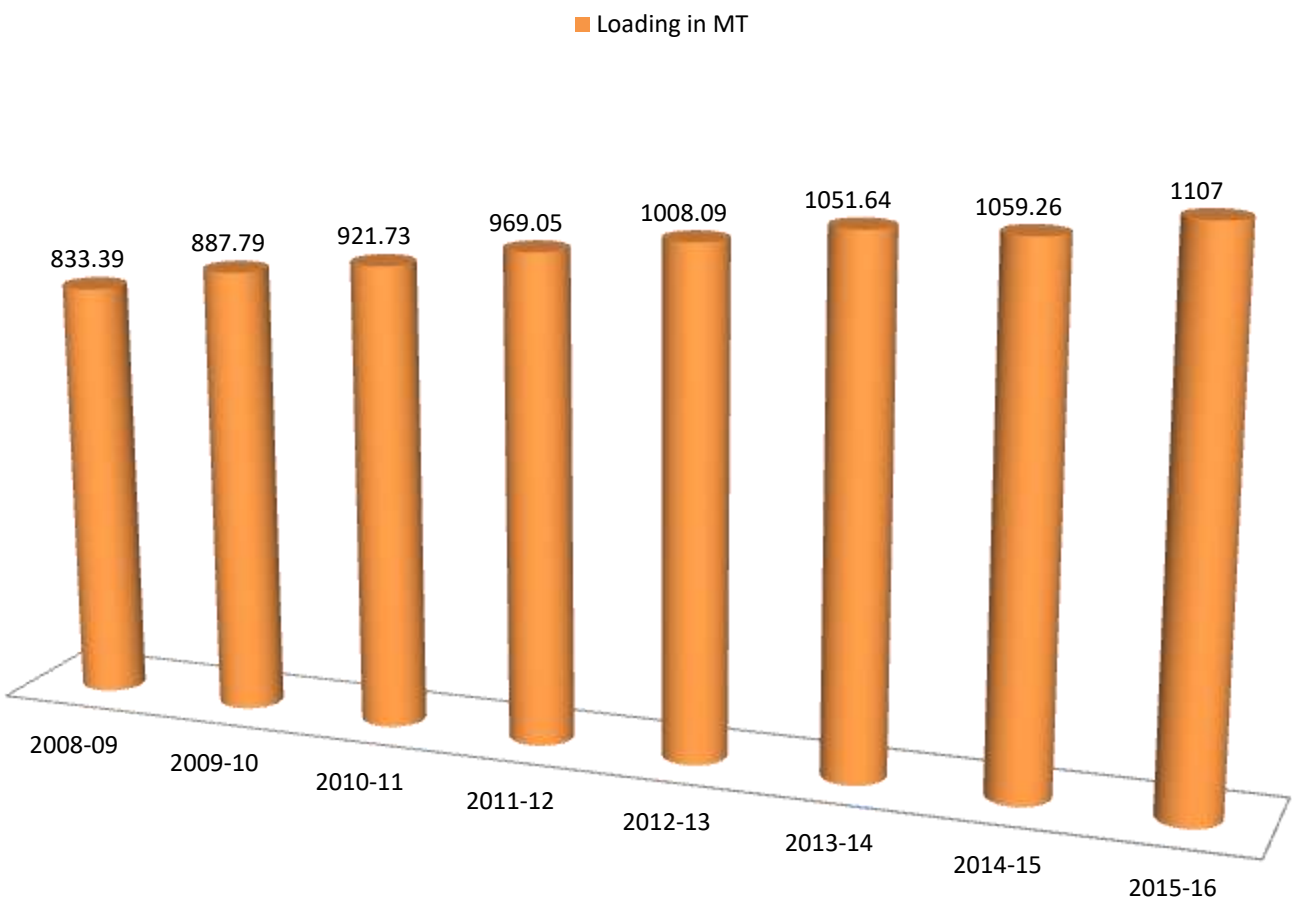
(source: Morgan Stanley Report, Nov., 2015)

Railway as a % of Road Cost

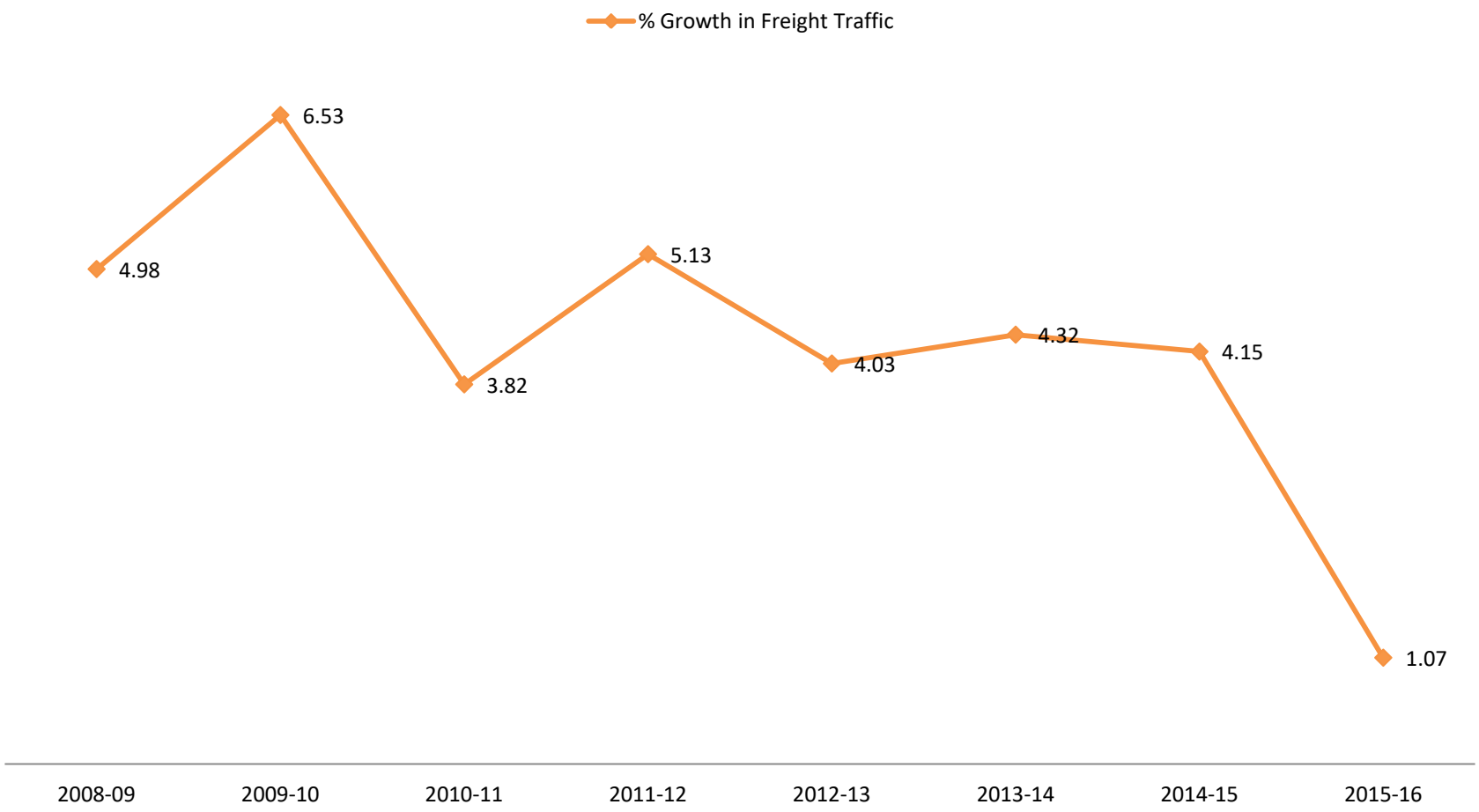
(source: Morgan Stanley Report, Nov., 2015)



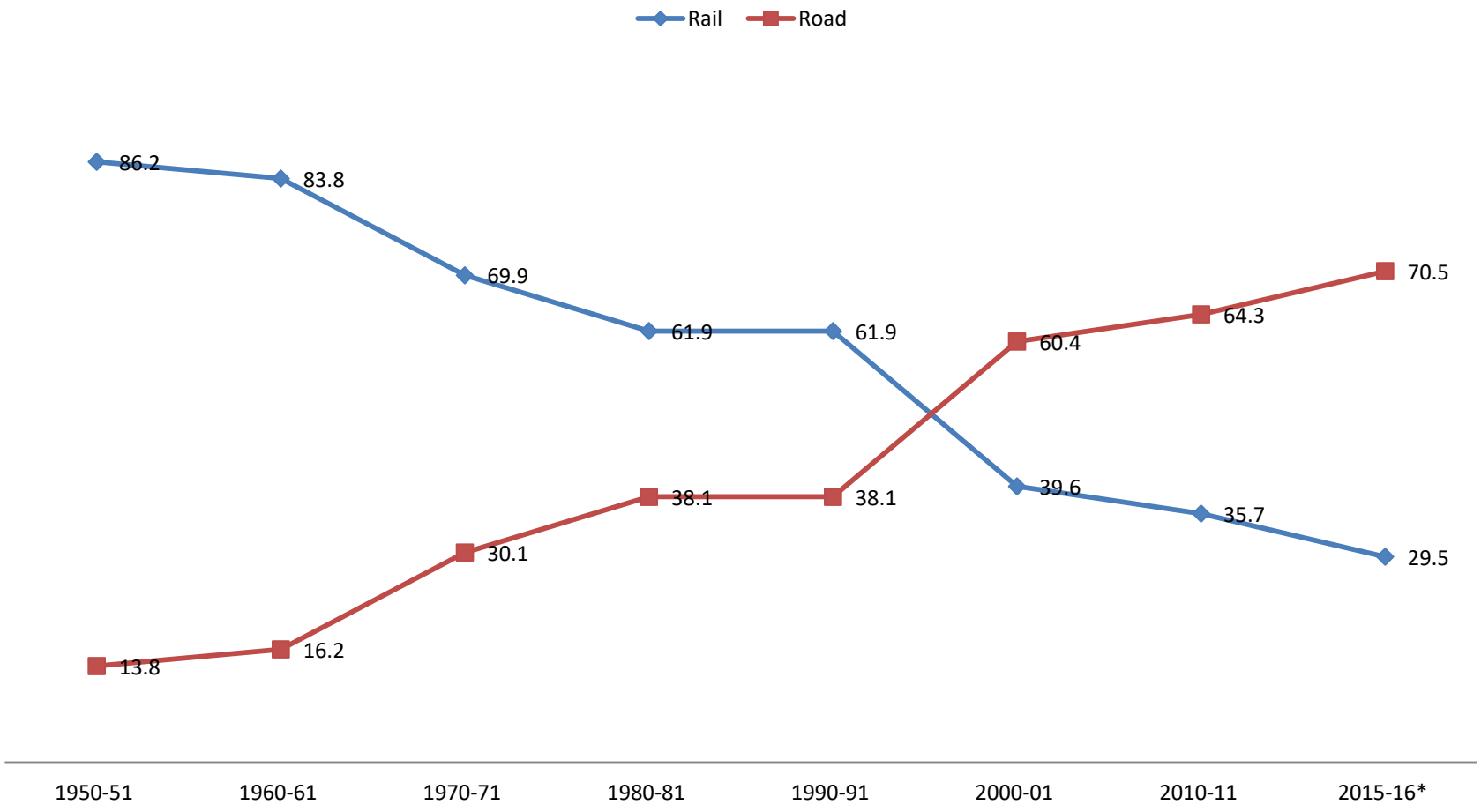
Freight Loading in IR



% Growth in Freight Traffic



Distribution (%) of overall Freight traffic



Pakistan Railways

http://www.railways.gov.pk/

Khawaja Saad Rafiq

Federal Minister for Railways

Financial Position

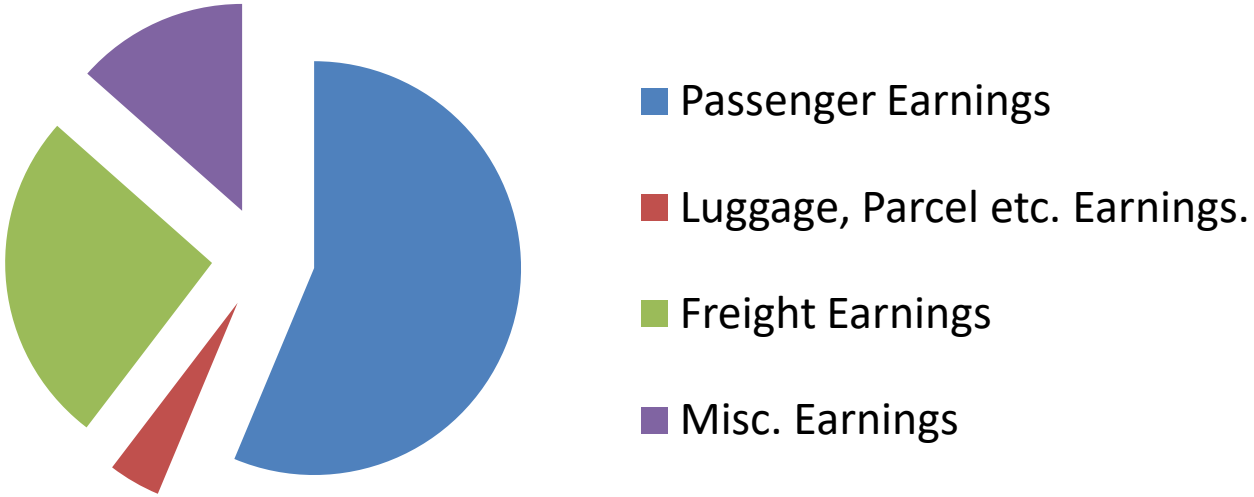
Year	Earnings target (in Billion Rs)	Actual Earnings (in Billion Rs)	Profit/Loss (in Billion Rs)	Overdraft by PR from SBP (in Billion Rs)
2010-11	19.14	18.60	-29.95	---
2011-12	14.50	15.45	-29.35	---
2012-13	20.00	18.00	-30.50	39.949
2013-14	21.60	23.00	-32.53	39.838
2014-15	28.00	32.00	-27.25	35.994

Source: PILDAT Citizens Report, Pakistan Railways: A Performance Analysis, December, 2015

Pakistan Railways: Breakdown of Operating Revenue

(Source: PILDAT's Report, Dec, 2015)

Year	Passenger Earnings		Luggage, Parcel, Mail, etc. earnings		Freight Earnings		Misc. Earnings		Total Earnings
	In Million Rs.	%	In Million Rs.	%	In Million Rs.	%	In Million Rs.	%	In Million Rs.
2014-15	17971.77	56.29	1301.16	4.07	8354.40	26.16	4297.43	13.46	31924.76



Revenue Generation

Year	% Passenger Earnings	% Parcel, etc Earnings	% Freight Earnings	% Misc. Earnings
2010-11	64.29	5.47	17.93	12.30
2011-12	72.18	6.59	10.25	10.97
2012-13	74.91	5.45	10.98	8.66
2013-14	69.34	4.93	15.60	10.13
2014-15	56.29	4.07	26.16	13.46

Source: PILDAT Citizens Report, Pakistan Railways: A Performance Analysis, December, 2015

Pakistan Railways (PR): Share in Budget (in billion Rs.), 2015-16

(Source: PILDAT's Report, Dec, 2015)

NHA	PR	Others	Total
159.6	78	1329.9	1567.5

NHA

PR

Others

Bangladesh Railway

http://www.railway.gov.bd/

মোঃ আমজাদ হোসেন

মহাপরিচালক

Md. Amzad Hossain

Director General

Key Performance Ratios
(figures in BDT million)

Source: https://www.adb.org/sites/default/files/linked-documents/49094-001-sd-01.pdf

Financial Performance	2010	2011	2012	2013	2014
Revenue - wihtout PSO Compensation	5,663	6,295	6,034	8,043	8,002
Revenue – with PSO and Welfare Grant	6,731	7,470	7,264	9,293	9,221
Operating Expenses	-12,572	-14,918	-15,671	-15,624	-16,017
Net Operating Deficit	-5,840	-7,447	-8,406	-7,581	-8,015

Key Performance Ratios

(figures in %)

Source: https://www.adb.org/sites/default/files/linked-documents/49094-001-sd-01.pdf

Financial Ratios	2008	2009	2010	2011	2012
Operating Ratio – without subsidy	222	237	260	194	200
Operating Ratio – with subsidy	187	200	216	168	174

JNPT details (2015-16)

(source: www.jnport.gov.in)

Type of Cargo	Volume (in million tones)	Volume (%)	Growth (%)
Containerized	56.79	88.70	0.56
Liquid	6.50	10.16	5.37
Misc. (Dry Bulk & Break Bulk)	0.73	**1.14**	
TOTAL	64.02	100	

JNPT: Rail Traffic

ICD traffic (TEUs)	2014-15	2015-16	% Variation
Import	441,359	429,099	-2.78
Export	391,395	346,585	-11.45
Total	833,754	775,684	-6.96
No. of Rakes	5,168	4,918	-4.84

Container Traffic in India

- By 2020, India would handle around 400 million tones (33 million TEUs) per annum
- In 2014-15, India handles 11.53 million TEUs (CONOR http://www.concorindia.com/ share – 3.11 million TEUs with 63 terminals)
- Growth in last 10 years – at a CAGR of 9.8%
- Rail co-efficient at ports for containerized cargo is around 20% only (32.66 million tones out of 160 million tones handles)
- Imbalance in Import and Export

Advantage Road

- 60% share of total freight traffic
- National Highways – 1.8%
- State Highways – 3.7%
- District Roads – 7%
- Others – 87.5%
- Freight traffic uses 12% of total road network
- 80% spending vis-à-vis Rail

- Developing Road infrastructure
- Better road carrier design
- End-to-end logistics solution
- Perceived reliability
- Pricing – flexible, competitive
- Procedure/method - easy

Constraints -Rail

- Passenger segment – pre-occupation
- Terminal development
- Procedures/Methods
- Weight-vs-volume
- Rake/Wagon loading
- Response time
- Ease of business (perceived)

How do Indian Railways carry Parcels?

- **Assistant Guard Cabins (AGC)**
- **Brake Vans (SLRs)**
- **Parcel Vans (VPU/VPH)**
- Special Parcel Trains
- Freight Wagons (BCN)
- Special Wagons (Milk Tank)
- Refrigerated Wagons/Coaches

LANCASHIRE & YORKSHIRE RLY
PASSENGERS'
LUGGAGE
IN ADVANCE
1/3
COLLECTED
CONVEYED
DELIVERED
PARCELS &
PASSENGERS' LUGGAGE
COLLECTED & FORWARDED
BY EXPRESS PASSENGER
TRAINS.

Booking of Parcels

- Non-Leased
- Leased

Non-Leased Parcel: Concerns

- Manual handling – Pallet and Container solutions ?
- Non-availability of space
- Over-carriage
- Prior information
- Segregation for OD
- Damage during transit

Parcel Management System (PMS)

- “Parcel Management system is implementation of IT and computerizing the work of Booking, Loading, Unloading, tracking, tracing, delivery and internet based enquiry. As per the main features of parcel management system, booking, weighment and cash payment can be done on single window. The use of technologies like Bar-coding and tracking facility improves the management of parcel traffic. Customer can track their parcel through Parcel and Luggage Tracking online system available on website address www.parcel.indianrail.gov.in.”

- http://www.indianrailways.gov.in/railwayboard/uploads/directorate/cis/downloads/ParcelManagementSystem.pdf

Comprehensive Parcel Leasing Policy, 2014

- http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Frght_Mktg_2k14/FM_06_2014.pdf
- http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Freight_Marketting_2016/FM_Draft_140116.pdf

Special Parcel Train Operator (SPTO) Scheme

http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Frght_Mktg_2k14/FM_23_14.pdf

Policy on Leased Parcel Cargo Express, 2007, 2016

http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Freight_Marketting_2016/FM_140116.pdf

Parcel rates

http://www.indianrailways.gov.in/railwayboard/view_section.jsp?lang=0&id=0,6,335

Rates Comparison

- Railways cargo is almost 50% cheaper than air-cargo!
- 90% of the existing online orders are currently being shipped via air-cargo!

Parcel Earning Projections

Year	Earnings (Crores)	% growth
2013-14	1827.6	11.7%
2014-15	2002.23	10.0%

E-tail business is growing at over 50% per annum.

IR's Parcel Business is incurring LOSSES!

Morgan Stanley Research, 2015

- The World Bank estimates that India's logistics costs are 2-3x the best practice benchmark costs, hurting India's manufacturing competitiveness. We believe that the key reason for this is the underinvestment in Indian Railways – with budget allocation vs. roads significantly lower than global standards. Rail is a significantly cheaper mode of transport than roads, yet the share of roads in Indian freight movement is >1.5x that of the railways, owing to the congestion on the rail network and poor policies
- http://www.indianrailways.gov.in/Morgan%20Stanley%20Report%20on%20Indian%20Railways.pdf

Excerpts of Indian Railways Budget 2016-17

104**. Non-Fare Revenues:**

e**. Overhaul of Parcel business:** We plan to liberalize the current parcel policies including opening the sector to container train operators to effect a quantum jump in IR's share of the national **CEP (Courier, Express and Parcel) market**. Door to door connectivity is especially important for this market segment and we will take all steps necessary to expand our service offerings specially to growing sectors such as e-commerce. We will also initiate a pilot project for online booking of parcels.

Excerpts of Indian Railways Budget 2016-17

Tariff rationalisation

99.The current **tariff structure** of IR has led to out-pricing of our services in the freight market. A review of tariff policy will be undertaken to evolve a competitive rate structure vis a vis other modes, permit multi-point loading/unloading and apply differentiated tariffs to increase utilization of alternate routes. The possibility of signing long term tariff contracts with our key freight customers using pre-determined price escalation principles will be explored which would provide predictability of revenues to IR and of costs to our customers.

Excerpts of Indian Railways Budget 2016-17

Building terminal capacity

100. Inadequacy of warehousing and transportation facilities is also one of the causes that that keep potential customers away from Page 31 of 46 the Railways. In order to complete the chain of transportation, it is proposed to develop Rail side logistics parks and warehousing. These logistic parks and warehouses would be created in PPP mode to bring the required efficiency and investment but also help attract greater traffic to the Railways. With the coming in of TRANSLOC, the Transport Logistics Company of India, we will be witness to a paradigm shift in our role as a national logistics provider. The focus will be on providing last mile connectivity for freight business and significant reduction in logistic costs. At least 10 goods sheds will be developed by TRANSLOC in 2016-17. To capture the automobile traffic, we will soon inaugurate India's first rail auto hub in Chennai.

Excerpts of Indian Railways Budget 2016-17

101. This push on **rail side warehousing** would also encourage development of cold storage facilities on vacant land near freight terminals. Local farmers and fisherman would be given preferential usage of the facility. A policy in this regard would be issued in the next 3 months.

CEP (Courier, Express, Parcel)

- Urgent, high value low volume, time sensitive, perishable
- Bottom line: Fast and reliable delivery
- Small packages: 50-70 Kg
- International (steady) and Domestic (Hike) markets
- Traditionally B2B; now also B2C and C2C
- Logistics pattern: first mile**, line haul**, last mile
- Role of e-commerce

Liked by Stakeholders

- “Railways would extend logistic support to various ecommerce companies by providing designated pick-up centres at identified stations.”

(Hon’ble Minister for Railways, 2014)

CEP

- Global CEP market at CAGR of 3.42 % in 2014-19 (technavio's forcast)
- CEP Market:

➢ Driver – Domestic E-Commerce business

➢ Challenge – Competition in Market

➢ Trend – Rise of Inter-modal logistics

Traditional CEPs

10 Popular Courier Companies in India

E-Commerce

- Global B2C sales: $1.7 trillion (2015) – $2.3 trillion (2018) Annual growth rate = around 15%
- Asia-pacific and China with India – emerging fast
- India’s market - $100 billion by 2020 (Golden Sachs)
- Leading ones: Flipcart, Amazon, Snapdeal

Why E-Commerce?

- Many benefits
- Many players
- New operation pattern – Reverse logistics
- 3PL and more…

  “The global 3PL market reached $750 billion in 2014, and grew to $157 billion in the US; demand growth for 3PL services in the US (7.4% YoY) outpaced the growth of the US economy in 2014. As of 2014, 80 percent of all Furtune 500 companies and 96 of the Fortune 100 used some form of 3PL services.” (source: Wikipedia)

With E-Commerce push, India Post parcel revenue soars 37%

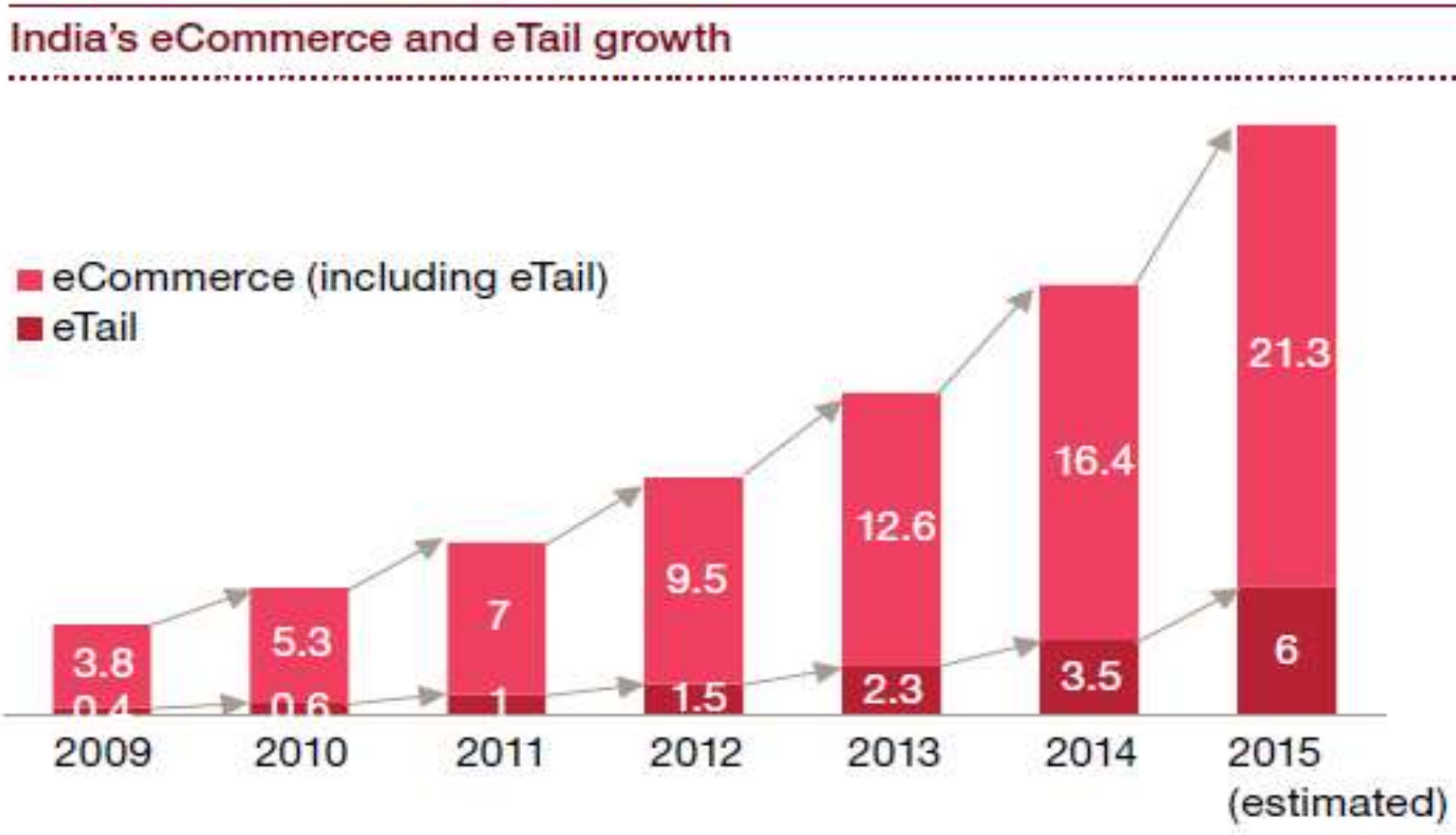
(**PTI** Jul 12, 2015, 03.51PM IST)

(As part of initiatives to leverage the e-commerce sector, India Post has forged tie ups with Snapdeal, Amazon, Paytm and Yepme for parcel delivery.)

India Post with E-Commerce

- The boom in the e-commerce sector has come as a lifeline for the postal department. Till March 2016, India Post collected Rs.1,500 crore in cash for delivering parcels for various e-commerce portals, including Amazon and Flipkart. The cash collected from e-commerce deliveries by DoP was Rs.500 crore in 2014-15, and a meagre Rs100 crore in 2013-14.

Growth trends of e-Commerce



Source: IAMAI, CRISIL, Gartner, PwC analysis and industry experts

Relevance of E-Commerce to Railways

- E-Commerce business by 2020 will be $119 Billion (from $2.9billion in 2013) as per Morgan Stanley report.
- e-Tail which involve transportation of goods constitute about 6% of E-commerce business.
- Logistics component of value is about 10%.
- Core competence of Railways is Transportation
- IR's parcel business at present is about Rs.2000 Cr.

Railways Need to Claim their Shares!

(source: AMP Project/NAIR)

Tie-up with E-commerce companies

- The Railways has hired Technopack Advisors Pvt. Ltd technopak
- In talks with Amazon, Flipkart and Snapdeal, etc.
- Targeting revenues of up to Rs.500 Crore in the next three years (2017 onwards) through these tie-ups

Tie-up with India Post

- The talks to jointly tap the parcel business opportunity is yet to reach a conclusion
- “While the railways is offering to start dedicated trains to ferry parcels, the DoP (India Post) wants only a coach in passenger trains…”

SWOT: Railways as Logistics Solution to e-Commerce: Strengths

- Established transporter
- Daily interaction with about 25 million customers
- Railway can be easy pick up & delivery points at Stations
- Established Railway PSUs like ITRCTC (already doing e-Commerce), CONCOR
- Wide pan India presence
- Bulk movement of goods for B2B commerce
- Connectivity with the hinterland and smaller business hubs
- Cost effective & speedy long distance transportation
- Located in business hubs in most cities
- Unrestricted interstate movement of goods

(source: AMP Project/NAIR)

SWOT Analysis: Weaknesses

- Centralization of business related decision-making.
- Poor quality of customer interface at the booking points
- No assured service of safe delivery of consignments
- Poor handling of goods at loading and unloading points
- Inadequate terminal facilities like warehousing, stacking etc.
- Lack of long term partnership with potential customers
- No monitoring or tracking system of consignments
- Theft of goods and lack of security at terminals
- Tardy and lengthy process of settlements of claims
- Limitations in availability and customization of rolling stock

(source: AMP Project/NAIR)

SWOT Analysis: Opportunity

- High growth rate of e-commerce or e-tailing in India
- Low cost of entering e-Commerce
- Poor condition of roads in the hinterlands
- Limited capacity of airline cargo
- Expansion of e-tailing in Tier-2 and Tier-3 cities where Railways has good connectivity
- Bulk movement of goods booked by e-commerce companies

(source: AMP Project/NAIR)

SWOT Analysis: Threats

- Loss of traffic to other modes of transport through e-Commerce
- Cost effective road transport
- End to end delivery by Road transport
- Expansion and improvement of road network
- Preference of e-commerce companies for other mode of transport
- Government Regulations

(source: AMP Project/NAIR)

Business e-Commerce options for Railways

- **Model 1:**

- (Business as usual) Limited Logistics solution to e-Commerce
  - Web portal for booking of vehicles/ warehousing space to be operated by IR.
  - Transportation + temporary storage (Warehousing) by Railways
  - Front & Back end logistics like transportation from supplier of goods upto warehouse by e-Commerce companies
  - Warehousing at origin & destination by company

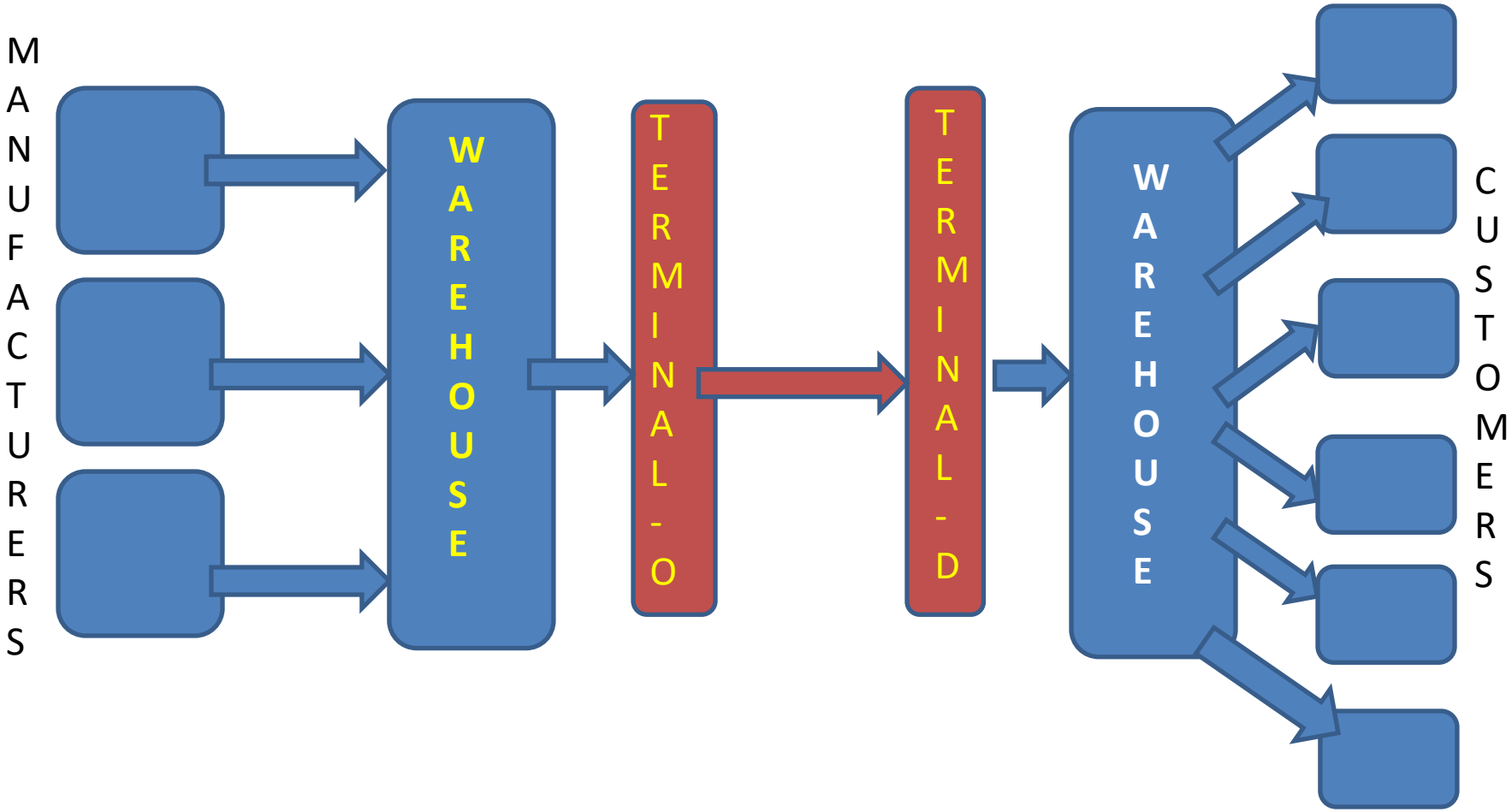
(source: AMP Project/NAIR)

Model-1: Limited Logistic Solution

- Long term agreement between IR & e-Commerce company for assured supply of vehicles & traffic respectively
- Handling at loading and unloading points to be responsibility of e-commerce companies
- Safety & security of goods during handling at loading & unloading points shall be responsibility of e-commerce companies
- IR shall allocate space on SLRs/Lease VPUs

(source: AMP Project/NAIR)

Model-1:Limited Logistics Solution



(source: AMP Project/NAIR)

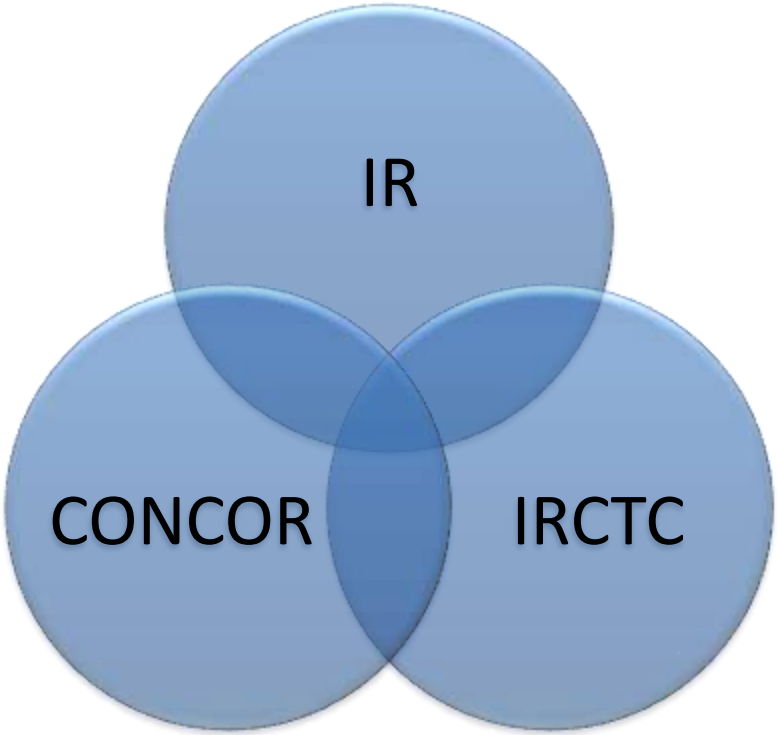
Limitations of model -1

- Mainly addresses the transportation aspect and not the complete logistics issue.
- Substantial quantum of traffic especially the long distance e-Commerce traffic already being carried by IR thus may not lead to net increase in traffic volumes
- Conservative approach to business which may not provide adequate opportunity to increase IR's business.
- Does not harnesses the available strengths of IR in form of PSUs with competence in e-Commerce and complete logistics.

(source: AMP Project/NAIR)

Model 2: Business Option- Railways entry into e Commerce

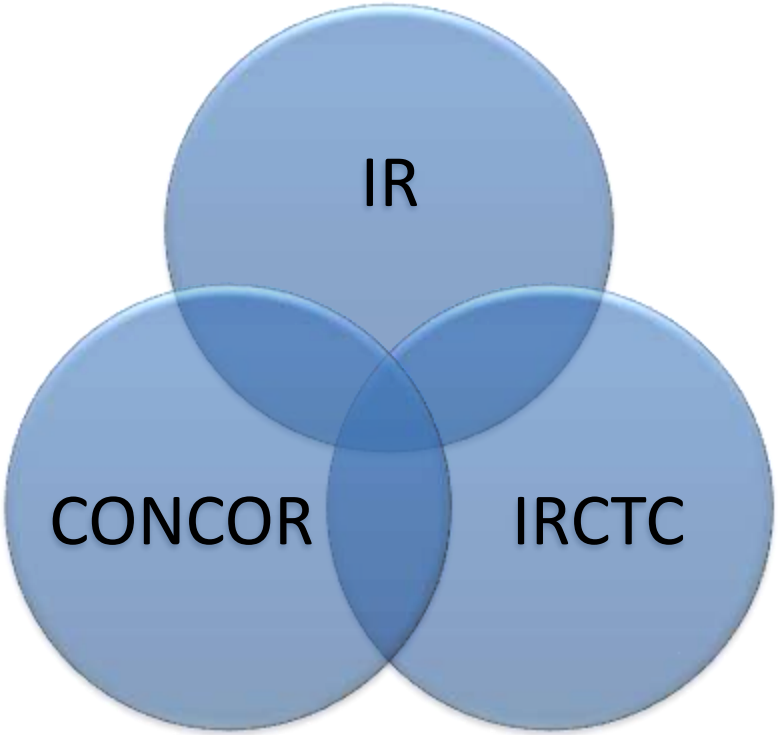
- So far IR unable to attain expected growth in parcel business.
- IRCTC already in e-Commerce
- CONCOR already providing complete logistics solution for many companies



(source: AMP Project/NAIR)

Model 2: Creating Synergies

- IR can offload parcel business to IRCTC who in partnership with CONCOR can engage in e-Commerce business
- JV between IRCTC & CONCOR with equity participation of IR.



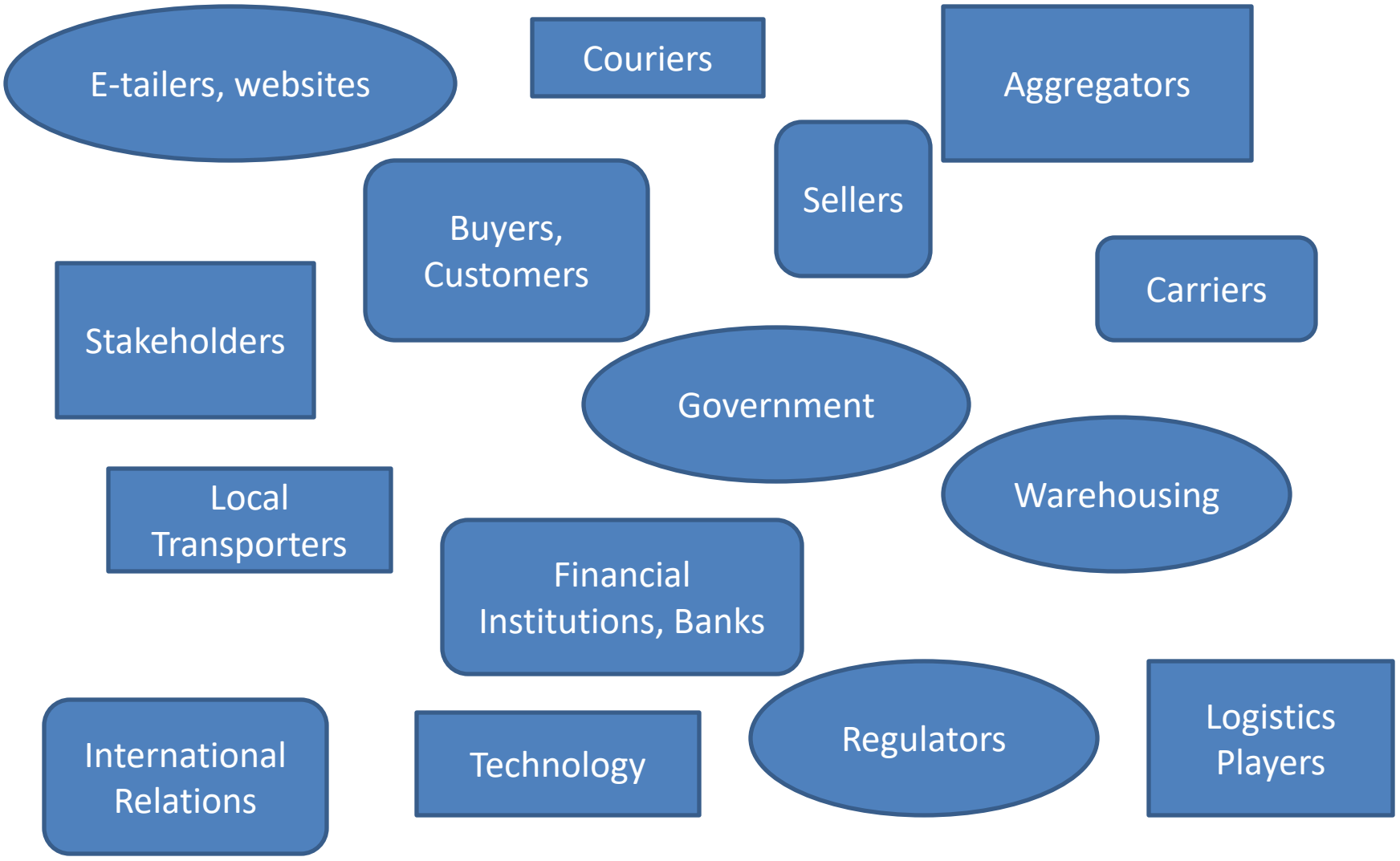
(source: AMP Project/NAIR)

Model-2: Creating Synergies contd.

- JV to have full freedom to make all business decisions
- JV to have obligation to pay dividend to IR
- JV shall operate all components of e-Commerce viz selling of goods through web portal, provide logistics, banking transactions
- The e-Commerce entity shall also utilise existing warehouses of CONCOR or develop new warehouses.
- It would also provide necessary insurance and compensation of the goods to the customers in case of damage and non-delivery

(source: AMP Project/NAIR)

Locate Railways!



Points to appreciate…

- Railways is uniquely placed in the transportation and logistics business
- Railways is reasonable – charge-wise and otherwise too
- Railways have wide network and connectivity
- Railways do business too
- Railways need to realize its role as a key link of the whole logistics chain, as aggregator, carrier and solution provider

Thank You

- धन्यवाद Dhanyavaad
- تشکرTashakor
- شکریہ Shukriya
- ধন্যবাদ Dhannobaad
- Kadrin Chhe
- ඔබට ස්තුතියි obaṭa stutiyi
- terima kasih
- Kyaayyjuutainpartaal
- *Kaadinchhey La*
- cảm ơn bạn
- ขอขอบคุณ K̄hx k̄hxbkhuṇ
- អរគុណ arkoun
- cho tôi biết