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Supply Chain in the Public Procurement Environment: Some Reflections from the Indian Railways

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Abstract

This paper provides analysis of supply chain management framework in the public procurement environment through a case study of the Indian railway. The paper provides some insights about the evolution of supplier relationship management and its impact on key performance indicators. Its also provides an integrative framework for management of public procurement. The paper builds on extensive review of literature and follows a case study methodology. The unit of analysis is the Indian Railway's material management function. Analysis uses data of over a period of five years. The finding highlights that supplier relationships with the Indian railway have been geared around arms-length philosophy. The current symptoms of inefficiencies are reflected in   high cycle time, high costs associated with supplier selection process, poor accountability, blurring of responsibility and poor value creation for all the stakeholders. The current procurement mechanisms are not crafted around development of long term strategic partnerships. This study is filling the gaps in literature by presenting the challenges of supply chain management in the public procurement environment. Insights from developing country like India can be applied to other public procurement systems. The paper deals with sensitive issue of public procurement system. The findings would be useful for policy makers in developing mechanisms for instilling insights of business management into the realms of public management. The study is first of a kind to provide a conceptual framework for understanding building blocks of the supply chain management in the public procurement environment.

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1. Introduction

Indian railway (IR) provides transportation and freight movement services. IR is a public sector undertaking of government of India whose affairs are managed through a ministry of railways. Railway board is the apex body which is chaired by a cabinet rank minister under government of India. Railway board functions at the apex level and is responsible for policy making, target setting, performance monitoring, cadre planning and centralized purchase of high value items comprising of complete rolling stock etc. Railway board member responsible for mechanical engineering is in-charge of activities related with mechanical engineering and material management and is responsible for production and maintenance of rolling stocks like wagons, coaches and diesel locos. Purchases made by railway board comprise 40% of the total purchase.

Presently the Indian railway operations involve movement of 19000 trains a day and transportation of 2.9 million tones of fright traffic and 23 million passengers per day. It is world's largest passenger carrier and fourth largest freight carrier. During year 2012-13 the freight loading was more than 1 billion tone and passenger transported stood at 8.4 billion. The Indian railway provides direct employment to 1.3 million people and a much larger indirect employment. In a nut shell the size and operations of the IR is depicted in table 1.

Table 1. The Indian Railway at a glance.

SN	Item (s)	Unit	2011-12	2012-13
1	**Assets**			
	Route length	Kilometers	64,600	65,436
	Locomotive	Numbers	9,549	9,956
	Passenger Service Vehicles	Numbers	55,347	57,256
	Wagons	Numbers	2,39,316	2,44,731
	Railway Stations	Numbers	7,146	7,172
2	**Operations**			
	Passenger origination	Millions	8224	8421
	Passenger kilometers	Millions	1046522	1098103
	Freight Traffic (Revenue)			
	Tonnes origination	Millions	969.05	1008.09
3	**Volume of Traffic**			
	Passenger kms	Millions	10,46,522	1,098,103
	Total traffic (incl.non-revenue)	Millions	975.16	1,014,15
	Freight traffic (Revenue)			
	Tonnes originating	Millions	969.05	1008.09
4	**Employment and Wages**			
	Regular employees	Thousands	1,306	1,307
5	**Financial Results**			
	Revenues	In crores of Rs.	1,04,110.36	1,23,732.59
	Expenses	In crores of Rs.	98,667.41	1,11,572.04
	Miscellanous transactions	In crores of Rs.	1,338.66	1,454.64
	Net revenue (before dividend)	In crores of Rs.	6781.61	13,615.19

(Source- Indian Railway year book 2012-13)

Figure 1. Share of IR Vis-à-vis other modes.
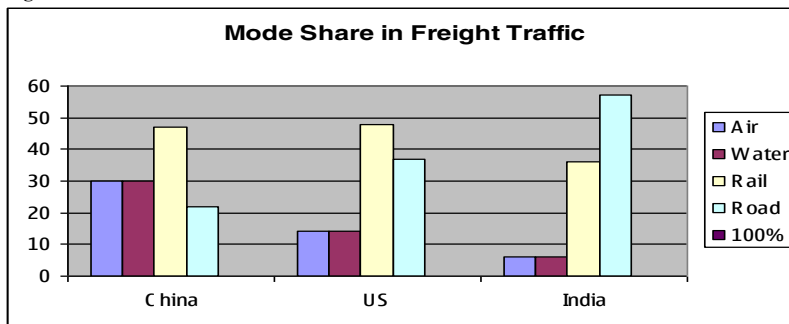
(Source: Material Transport Development policy committee, June 2012)

Railway is a preferred mode of transport because it is having advantage over road in terms of energy consumption,