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Public Procurement- a case study of the Indian Railways

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Abstract

Indian Railways is one of the world's largest public sector organizations. Its network, traffic, organization and extent of vertical integration are gigantic. This paper undertakes a critical examination of its procurement process to understand the procedures and institutional mechanisms which have evolved over time for safeguarding institutional interests. The paper examines issues such as organizational structure, procurement organization, source selection methodology, procurement oversight and regulation and their impact on the economy, efficiency, transparency and accountability aspects of procurement. It is found that a unique combination of internal vigil, external oversight by independent bodies and organizational characteristics contribute to robust procurement processes.

1.Introduction

This paper discusses the efficacy of measures adopted to check malpractices in public procurement in the Indian Railways.

Indian Railways (IR) is the world's third largest railroad network under a single administration. It is the world's second largest railway passenger transport organization, carrying 7 billion passengers annually. It is also the world's fourth largest railway freight transport organization, carrying 888 million tons annually. It employs 1.4 million persons and is one of the world's largest employers. It contributes about 1.2% of the country's GDP.(Ministry of Railways 2011)(Ministry of Railways 2009)

IR's scale of operations is gigantic. The IR network size is 64,015 km with 7030 stations spread across the length and breadth of the country. IR is also one of the largest real estate owners of the country with a share of 0.2% of the country's area. IR runs seventeen thousand trains daily using five thousand electric & four thousand diesel locomotives, sixty thousand passenger coaches, and 209 thousand freight cars. These assets are maintained in 103 loco sheds, 224 carriage and wagon shops and 45 repairs and overhaul workshops which are located throughout the network. IR operates its own communication and information network for transmission of voice and data. (Ministry of Railways 2009)

IR has a very high degree of vertical integration. It manufactures about 250 electric locomotives, 250 diesel-electric locomotives and 3000 passenger coaches annually at six manufacturing units for its own use and for export. Railway workshops manufacture items such as traction motors, switch gears and control gears, cast & fabricated bogies, cast steel railroad wheels and forged axles. It owns and operates 125 hospitals with a capacity of 14,000 beds. It runs 316 schools for employees' children with enrolments of nearly 100 thousand students. IR provides accommodation to about 45 percent of its non-executive personnel and nearly all its executive personnel in 600 thousand apartments owned and maintained throughout the network. It runs mechanized laundries for cleaning bed linen provided on passenger trains and kitchens for preparing food for 9 million passengers travelling daily on long distance trains.

During the year 2009-10 the total expenses of IR was Rs.829 billion, of which expenses for procurement alone was Rs.279 billion (about USD 18 billion at current exchange rate of 1 USD=Rs.45 and a PPP correction factor of 2.9(Ministry of Finance, Government of India 2011)). About 40 percent of the procurement expenditure was for purchase of items required for manufacturing, 30 percent for purchase of items required for repairs, operation and maintenance, 27 percent for purchase of fuel and remaining for purchase of items required for construction. Items as diverse as rails, motors, paint, diesel, office supplies and medicines are regularly procured by IR in substantial quantities. (Ministry of Railways 2011)

IR has been growing rapidly since independence, resulting in increase in procurement activities too, as seen from Table 1. IR possesses a monopsony position, since firms engaged in transactions with them have no other alternatives to pursue business. (Bovis 2007) This should have led to abuse of market power since IR is likely to dictate terms to its suppliers. Thus there should be little likelihood of development of vendor base, since suppliers would be loathe to operate in such markets where there exists enormous possibility abuse of power by procurement officials. However a reading of the vendor base shows vendors of all categories are continuously entering the IR procurement process.

Table 1: Growth of Indian Railways

	1950-51	1970-71	1988-89	2009-10	annual growth rate (%)
Passenger Traffic (billion passenger km)	66	118	264	903	4.5

Freight Traffic (billion tonne-km)		38	111	222	601	4.8
Stores Procured(Rs.billion, current prices)		1	3	43	279	-

Source: (R.N.Saxena 1991) and (Ministry of Railways 2011)

Further, the World Bank while analyzing public procurement in India has remarked regarding IR's procurement organization: "The creation of a competitively recruited class one cadre of procurement specialists in the Railways and Department of Supply in the early fifties has contributed to comparatively higher professional standards in both organizations, and needs emulation in other ministries and sectors. Creation of such cadres fosters professional growth, pride in the profession, cross-fertilization of ideas, etc. Alternatively, professionals belonging to these services should be entrusted with the procurement activity in all ministries."(World Bank 2003)

However there is no research available on the methodology of the IR's procurement process, procedures for safeguarding institutional interests or the lacunae and advantages accrued by the system adopted. This paper attempts to fill this gap, since it is worthwhile analyzing the structure, processes and mechanisms which have evolved in an organization in existence in a developing country since 1853. The research is mainly based on examination of IR's process manuals and annual reports of the Central Vigilance Commission, Central Bureau of Investigation, Comptroller & Auditor General and the Indian Railways, along with discussions with senior management personnel. This paper is organized as follows: the organizational structure, procurement organization and source selection methodology of IR are discussed in Section 2; the procurement process is discussed in Section 3; procurement oversight and regulation are discussed in Section 4; the impact of the procedures and the oversight bodies are discussed in Section 5 following by conclusions in Section 6.

2.1 IR Organization

2.1.1 Zones & Divisions of IR: The IR network is carved into 17 geographical zones for administrative convenience. Each zone is again divided into Divisions; the Indian Railways today has 68 Divisions. Besides the zones, IR has other administrative units such as the manufacturing units and the Research Design & Standards Organization (RDSO, which is the IR's central R&D organization).

2.1.2 Relation between Board, Zones and Divisions: The Indian Railways has a matrix form of organization at three levels. The levels, in descending order of hierarchy are the Railway Board, Zones and the Divisions. The Railway Board, which reports to the Minister of Railways, comprises the Chairman and six members designated as Member (Staff), Member (Traffic), Member (Engineering), Member (Electrical), Member (Mechanical) and the Financial Commissioner; all Members are assisted by one or two Additional Members. While the Railway Board is headed by the Chairman, the Zones are headed by a General Manager (GM) and the Divisions are headed by a Divisional Railway Manager (DRM). While each level is organized on functional lines, functional heads at each level report to both the topmost manager at that level as well as the functional head at the next level. The functional departments of IR are engineering, mechanical, electrical, signal & telecommunications, operating, commercial, accounts, personnel, stores, medical, security and safety.

2.1.3 Categorization and cadres: IR employees are categorized in four groups- Groups A, B, C and D. Groups A and B category employees (numbering about 17 thousand) man the executive positions at the Division, Zone and Board levels. The Group A employees belong to different Indian Railway Service (IRS) cadres organized on functional lines. The functional positions at the Board, Zone or Divisional level are manned by persons belonging to the respective cadre. The ascending levels of hierarchy of Group A are Junior Scale (JS), Senior Scale (SS), Junior Administrative Grade (JAG), Senior Administrative Grade (SAG) and the Higher Administrative Grade (HAG). The Divisional functional heads are JAG rank, while the DRMs are in SAG rank. The Chairman of the Railway Board, General Manager of the Zones and the Divisional Railway Manager can belong to any one of the IRS cadres. While Group A personnel can take up positions across any of the Divisions, Zones, Board and other units of IR, personnel belonging to other Groups are usually confined to the IR unit to which they are recruited. Persons belonging to any of the functional cadres (except the medical and security cadres) are eligible to hold the positions of (a) Chairman and Member (Staff) of Railway Board (b) General Managers, Additional General Managers, Senior Deputy General Managers of zones and manufacturing units and (c) Divisional Railway Managers and Additional Divisional Railway Managers. This system allows executives to gather both functional and general management expertise while moving up the hierarchy.

2.1.4 Recruitment: The age limit for recruitment to all positions is around 30 years. Recruitment to the lowest rank of all Group A cadres is done the Union Public Service Commission through open competitive examinations. Employees join in the different Groups through the UPSC or Railway Recruitment Boards and work their way up the hierarchy till their retirement at the age of 60. There is no lateral induction at any level in the organization.

2.1.5 Protection and Discipline: Being public servants, all employees of IR enjoy protection against arbitrary dismissal or demotion under Article 311(2) of the Constitution of India which states “No such person as aforesaid shall be dismissed or removed or reduced in rank except after an inquiry in which he has been informed of the charges against him and given a reasonable opportunity of being heard in respect of those charges.” However all executive and non-executive employees are also subject to strict rules governing their conduct and deviations are taken up for disciplinary action under procedures laid in The Railway servants (Discipline & Appeal) Rules, 1968; disciplinary proceedings could lead to fines, demotion, or dismissal with or without terminal benefits.

Employment in IR is quite coveted with average annual wage at Rs.379 thousand, excluding free travel, medical and pension benefits for the employees and their families. (Ministry of Railways 2011) In contrast the average annual wage in the Indian manufacturing sector is less than Rs.50 thousand.(International Labor Organization n.d.) Further with unemployment rates hovering around 5 to 8%, IR employees rarely quit the organization on their own.

2.2 Procurement Organization

2.2.1 Stock Items: The Stores Department is charged with the responsibility of procurement, storage and issue of stock items used by all other Departments of IR. Stock items are those items that are regularly required for repair, maintenance, operation and manufacturing activities and need to be replenished at regular intervals. The Stores Department also procures non-stock items (which are not listed as stock items) when requested by the functional departments. Non-stock items are those that do not require regular replenishment and are procured only for a particular activity.

2.2.2 Stocking Depots: The Stores Department maintains 230 stocking depots spread over the entire railway network serving various zones and manufacturing units. The stocking depots stock

180 thousand stock items of various descriptions. The stocking depots form the basic unit of the materials management organization and are attached to track maintenance units, loco sheds, carriage and wagon shops, signal repair shops, repair and overhaul workshops and manufacturing units. The stocking depots are responsible for inspection, receipt, storage and issue of the stock materials to the consuming departments. The procurement of the stock items is not done by the stocking depots. Instead, the stocking depots are required to periodically inform inventory positions to the Controller of Stores (COS) and raise indents based on estimation of rate of consumption, through the RDBMS based online Material Management Information System.

2.2.3 COS Office: The COS at the zonal or manufacturing unit headquarters is responsible for actual procurement of items, based on indents sent by the stocking depots. The COS has to ensure that the inventory is within limits, while ensuring that there are no stock outs in the stocking depots.

2.2.4 Board and DGS&D: There are certain items which are centrally procured only by the Railway Board or manufacturing units or the DGS&D (the Director General of Supplies & Disposals which is central procurement unit of the federal Government of India). Certain items are also marked for manufacture at in-house workshops or manufacturing units. The COS is responsible for sending the zonal indent to the central procurement agencies or the in-house workshops or manufacturing units.

2.2.5 Local Procurement: Procurement of low value items can be made by executives of other departments too, for which guidelines for procurement procedure and maximum limits of expenditure are specified. The functional departments can also procure stock or non-stock items of very low value directly from the market, in events of stock outs or urgency.

2.3 Source selection procedure

In order to ensure reliability, availability and safe working of railway assets, IR has been following the practice of maintaining lists of approved vendors for certain specific items. The Railway Board decides the items for which lists of approved vendors are to be maintained, as well as the agency responsible for maintaining the lists. The responsibility is generally given to RDSO or the manufacturing units. The Railway Board might itself decide the approved vendors for certain items, in rare instances. Further, certain zones or manufacturing units might decide to

maintain lists of approved vendors for a few more items (other than those specified by the Railway Board), which in their opinion is critical to maintaining reliability, availability and safe working of assets.

RDSO requires that vendors register online for inclusion in the approved vendors list, following which RDSO examines the firm's financial and technical capacity, infrastructure, manufacturing practices, quality assurance plan et cetera through examination of documents and plant visits. If the vendor is found suitable for enlistment, the firm is usually first placed in a Part 2 list; orders for only a limited portion (usually 20%) of the full tendered quantity are placed on Part 2 vendors. Vendors on Part 2 list are considered for up gradation to the Part 1 list after a minimum period of 15 months from inclusion in Part 2 list; orders for full tendered quantity can be placed on Part 1 vendors. Vendors can be down graded from Part 1 to Part 2 in certain circumstances. Vendors once down graded are not considered for up gradation till at least a year has elapsed. Vendors could also be entirely delisted from Part 1 without process of down grading in certain circumstances. RDSO publishes the updated list of approved vendors on its website every six months in January and July for use of all IR units.(Research Design & Standards Organisation n.d.)

3. Procurement Process

3.1 Raising of indents by stocking depots

Indents for stock items are raised by the stocking depots depending on the type of inventory control applied for the particular stock item. Two types of inventory control are used on IR: (a) Reorder point method and (b) Fixed interval procurement method. In the reorder point method, indents are generated by the stocking depot whenever the inventory level falls to a certain minimum level or the reorder point. In the fixed interval procurement, indents are sent at periodic intervals for covering the demand over a 12 month period.

3.2 Tendering Process

Indents received from the stocking depots are scrutinized and compiled at the COS office. In case the indents are required to be sent to other agencies for procurement, the indents are sent to

the accounts department for allocation of funds from the budget of the zone before sending them to the central agencies.

3.2.1 Type of Tendering: In case the procurement is to be done by the COS office, decision has to be taken about the type of tendering process to be adopted. The type of tendering process depends on the nature of the item under procurement and the total estimated value of procurement. The different methods of tendering used are : (a) "Open" Tender where tenders are invited by advertisement in media. Procurement is always done by the open tendering method under the usual circumstances. (b) "Limited" Tender where tenders are invited from a limited number of firms; Limited tender systems are adopted in case of items for which list of approved vendors have been drawn up. Such limited tenders are also given publicity in media from time to time (say every third procurement cycle) to seek out vendors who might not be on the approved list but have the capability to supply the material; in such cases, the issue of the tender forms is not restricted to firms whose names are on the list of approved contractors. If the offer of firm and credentials submitted are found satisfactory for such firms, a portion of the ordered quantity may be placed with the firm. If the order is satisfactorily executed, the name of the firm is added to the list of approved contractors. (c) "Single" Tender or "Private" purchase where tender is invited from one firm only. It is used when a specific item has to be procured from a specific firm only; for example, spares for particular machinery will be required to be procured from the OEM only.

3.2.2 The Process Tender notices, which are invariably advertised, include information about the specifications and quantity of items under procurement, place(s) of delivery, location of sale of tender documents and receipt of completed tenders, time of closing of bid acceptance and opening of bids.

The tenders are opened jointly by COS office and accounts department representatives, in presence of the bidders. While opening the bids, the officials are required to announce the offers received and circle the offers on the bid documents. All instances of over-writing, erasing or blank spaces in the tender documents are required to be circled, numbered and recorded by both officials during the opening of tender documents.

A comparative statement of offers, conditions and deviations for all bids is prepared by the COS office. The statement is then checked by the accounts department before being sent to the Tender Committee set up for consideration of tender offers. The user department might also be asked to evaluate the technical suitability of the offers received for the Tender Committee.

A Tender Committee comprising representatives from the stores, accounts and user department has to be constituted for evaluation of tenders valued above Rs.1 million. The Tender Committee evaluates the offers and submits its written recommendations (with reasons) to the accepting authority. The rank of tender committee members and accepting authority for different tender values is given in Table 2. The accepting authority is usually an executive of the COS office; the GM is the accepting authority for tender values exceeding Rs.150 million. The accepting authority has the authority to accept, modify or reject the recommendations of the Tender Committee; reasons for not accepting the recommendations of the Tender Committee must be recorded by the accepting authority.

Table 2: Tender Committee Composition & Accepting Authority

Tender Value	Tender Committee			Accepting Authority
	Stores	Accounts	User	
Rs.1 million to 3 million	SS	JS	SS	JAG
Rs.3 million to 10 million	JAG	SS	JAG	SAG
Rs.10 million to 20 million	JAG	JAG	JAG	SAG
Rs.20 million to 150 million	SAG	SAG	SAG	HAG
Rs.150 million to 250 million	HAG	SAG	HAG	GM
Rs.250 million to 500 million	HAG	HAG	HAG	GM

Source: (Ministry of Railways 1990)

3.3 Inspection, receipt and payment

3.3.1 Inspection The inspection is carried by personnel from specialized inspection agencies hired by IR. RITES, a subsidiary consultancy company of IR, or DGS&D is generally engaged by IR for carrying out such inspections. The vendor usually dispatches the supplies after inspection through railway transport. The vendor then applies for 95% of total payment along with proof of dispatch.

3.3.2 Receipt & Payment The consignee stocking depot on receipt of the supplies, will intimate the COS office and accounts personnel designated to make payment in a standard form, the date

of supply, along with details of quantities received, rejected or accepted. While making the final payment, accounts department checks whether the purchase order has been placed by a competent authority (in terms of financial powers granted), whether purchased items are not required to be purchased by the DGS&D or Railway Board, whether the accepted rates for purchase order are not in large variance with rates of earlier purchase orders for same item and whether the purchase orders and receipt notes exhibit any evidence of tampering (such as over writing, defacement or erasure).

3.4 It is seen that multiple agencies are involved in the procurement process: the indenting unit, the COS office, the user department, the accounts department, RDSO, RITES and DGS&D. It is also observed that the IR accounts department maintains oversight on procurement issues through financial scrutiny of all procurement proposals, participation in the tender process and payment. The associated accounts department also conducts regular checks on stocking depot to verify whether the physical inventory matches that in the records.

The accounts department of IR is uniquely positioned for this role of oversight, since it is different from the other functional departments. The role of the accounts department is to protect the financial interests of the Government of India; the objective being to “secure maximum efficiency in railway operations at the minimum cost, without unduly sacrificing one for the other”.(Ministry of Railways 1998) The Financial Commissioner, who heads the accounts department at the Railway Board level, is also a representative of the Finance Minister in the IR. The Financial Commissioner is thus the only Board Member who can differ with the Chairman of the Railway Board. The Financial Advisor & Chief Accounts Officer (functional head of the Accounts Department at Zonal level) is again the only functional head who can differ with the GM’s instructions.

4. Procurement Regulation and Oversight

4.1 Procurement Regulation

IR has been in existence over more than 150 odd years over different political and administrative systems of governance. It has evolved unique methods of governance over time, which is codified in various rules and regulations. The main rules governing procurement on IR are the Indian Railway Financial Code (Ministry of Railways 1998), Indian Railway Code for the

Accounts Department (Ministry of Railways 1997) and the Indian Railway Code for the Stores Department (Ministry of Railways 1990).

The Indian Railway Financial Code lays down the fundamental principle that should govern the entire procurement process. It is known as the 'canons of financial propriety' and reads as follows:

“(i) The expenditure should not prima facie be more than the occasion demands, and that every government servant should exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of the expenditure of his own money.

(ii) No authority should exercise its powers of sanctioning expenditure to pass an order which will be directly or indirectly to its own advantage”

However, there is no legal framework governing public procurement in India. Procurements in the public and private sector are governed by the same primary set of laws- The Indian Contract Act 1872 and the Sale of Goods Act 1930. All disputes related to IR procurement contracts are required to use the arbitration mechanism (set in The Arbitration & Conciliation Act 1996 and SCC) before approaching courts for settlement.

4.2 Procurement oversight

A large number of internal and external agencies exercise oversight of the procurement activities of IR. The internal agencies are the vigilance and accounts departments. The major external agencies are the Central Vigilance Commission, Central Bureau of Investigation, Comptroller & Auditor General and the Parliament.

4.2.1 Central Vigilance Commission The Central Vigilance Commission (CVC) along with vigilance organizations in IR units were created following the recommendations of the Santhanam Committee on Prevention of Corruption in 1964. The Central Vigilance Commission functions under the jurisdiction of the Ministry of Personnel, Public Grievances and Pensions. The total manpower in the CVC organization is around 300.

4.2.1.1 CVC Act 2003 The CVC draws its power from the Central Vigilance Commission Act 2003. The major provisions of the Central Vigilance Commission Act of interest are: (a) CVC can institute an inquiry or investigation on receipt of complaint of offence under the Prevention of Corruption Act 1988 from the Government or any private person; the CVC will have all the powers of a Civil Court while conducting such an inquiry in respect to summoning and enforcing attendance and requisitioning records and documents. (b) CVC will submit a annual report of its activities to the President of India, who will send it to both houses of the Parliament.

4.2.1.2 Central Bureau of Investigation The Central Bureau of Investigation (CBI) was set up in 1963, following the enactment of Delhi Special Police Establishment Act 1946 (DSPE Act). CBI has 16 zones and 60 branches through out the country. CBI has manpower strength of about 6000 officers.

Superintendence of the CBI rests with the Central Vigilance Commission (CVC) in regard to cases booked under the Prevention of Corruption Act; otherwise the governance of CBI rests with the Ministry of Personnel, Pensions & Grievances. The cases booked under the Prevention of Corruption Act relate to: (a) Public servants “taking gratification other than legal remuneration in respect of an official act” (b) Any person “taking gratification to influence a public servant” (c) Public servant obtaining valuables without adequate consideration from a person with whom the public servant has official dealings (d) Public servant appropriating or converting any public property for own use or allowing any other person to do so (e) Public servant in possession of assets (property or cash), acquisition of which cannot be explained by “known sources of income”. Under the Act, all such offences are punishable with imposition of fine and imprisonment.

The CVC can direct the CBI to investigate allegations of corruption against IR officials. Offences that require examination of non-official witnesses or where there is a possibility of suspected official tampering or destroying evidence are also referred to CBI by IR for investigation. CBI draws its legal powers from the DSPE Act to investigate, search, arrest and prosecute IR personnel for offences listed under the Prevention of Corruption Act 1988, Railways Act 1989 and the Railway Stores (Unlawful Possessions) Act 1955.

CBI acts on receipt of complaints (from private persons, Central Vigilance Commission or IR) or on information inputs gathered by its intelligence units. CBI after investigation may either proceed for prosecution in civil court and/or recommend action by the concerned IR department. Prosecution in civil court is generally adopted by CBI in all cases of bribery, criminal misconduct or cases involving sufficient loss of public money. The Government of India and State Governments have constituted about 50 Additional Courts solely for fast tracking CBI cases. Departmental action is recommended in cases wherein charges are breaches of departmental procedure (and does not amount to any criminal offence) or there is inadequate evidence for criminal prosecution (while evidence is good enough for departmental action). CBI follows up the departmental action and refers the matter to the next higher authority of IR in case of punishment being deemed inadequate by CBI. (Central Bureau of Investigation n.d.)

4.2.1.3 Whistleblowers & RTI Complaints to the CVC might originate from “whistle-blowers” within IR. The Public Interest Disclosure and Protection of Informers Resolution 2004 of the Government of India require the CVC to keep the identity of the “whistle-blowers” secret while investigating the complaint. Complaints to CVC and CBI could also arise out of information obtained under the Right to Information Act 2005. (Central Information Commission n.d.)

4.2.1.4 CVC & IR’s Vigilance Organization All units of the IR have a vigilance organization headed by a full-time Chief Vigilance Officer (CVO). CVC exercises superintendence over vigilance organizations of IR. The CVC also decides the suitability of the officer proposed to be appointed as CVO for a fixed tenure of 3 years. The total manpower in the IR Vigilance organization is about 1200, of which 170 are in executives. The vigilance personnel are drawn from all departments of IR. (Ministry of Railways n.d.)

The CVOs act as extended arm of the CVC in the IR. The CVO also acts as the advisor on vigilance matters to the head of the IR unit. The major functions performed by the CVO are (i) taking steps to prevent commission of improper practices/misconducts through review of rules and procedures (ii) investigations of verifiable allegations reported through authenticated (or not anonymous) complaints, irregularities detected during preventive checks or audit or stock verification or inspection by departmental executives, media reports etc.; processing investigation reports for further consideration of the disciplinary authority concerned; referring cases to CVC for advice in regard to cases involving executive personnel; processing vigilance

cases involving preparation of charge sheets, appointment of inquiry officers, monitoring of inquiry and action taken on recommendations of inquiries (iii) Surveillance and detection: collecting intelligence about the corrupt practices committed, or likely to be committed, conducting preventive checks; preventive checks may pertain to proper assessment of quantity, mode of tendering, selection of firms, verification of antecedents of firms, examination of offers, checks on proper procedure of issue of tenders, availability of tenders on web-site, maintenance of list of registered suppliers, checks on the receipt and inspection of stores, checks on the local purchase both by the stores depots and the consuming departments in regard to sources of purchase and reasonableness of prices, checks on the stores held in stock to pilferages, misappropriation of stores etc.

The major irregularities detected and punishments awarded in the IR in recent years relate to: (a) Award of contracts at exorbitant rates (b) Acceptance of substandard supplies (c) Failure to carry out quality checks (d) Manipulation at tender processing stage to eliminate eligible bidders to favor a particular bidder. Particular bidders are generally favored by the Tender Committee by exaggerating past performance, suppressing past failures, exaggerating past failures of competitors, suppressing or ignoring successes of competitors, ignoring lower offers by competitors by terming them as “un-workable” etc. (e) Irregularities in emergency local purchases by projecting emergencies for local procurement, splitting quantities to bring them within ambit of powers of local officials, exorbitant rates of purchase etc.

The CVC annual report of 2009 lists 8192 instances of punishment awarded in IR, following departmental proceedings of which 1143 are major punishments (reduction in pensions, dismissal from service or demotion). However these figures pertain only to executive positions, since CVC’s role is confined only to executive positions.

4.2.1.5 CVC-CBI Agreed Lists The CVC and the CBI, draw up “Agreed Lists” of officials every year in consultation with the IR vigilance organization. The officials figuring in “Agreed List” are persons against whom there are suspicions based on intelligence gathered or complaints received. The CBI and the IR vigilance organization maintains close watch on the officials figuring in “Agreed List” in regard to their official decisions, their assets and manner of living to ascertain whether to initiate investigation against such officials.

The CVC and CBI in consultation with the IR vigilance organization, also draws up an agreed list of locations and positions where there are suspicions of prevalence of corrupt practices; CBI may maintain close watch on such locations and positions and may conduct surprise inspections. IR is also required to ensure that officials are not allowed to continue in such locations and positions beyond certain tenure (say three years).

4.2.1.6 CVC procurement guidelines The CVC, while investigating various cases and conducting intensive examination of selected procurement cases, issues guidelines for streamlining the procurement process. A few important instructions issued in recent years are (a) Tender notices and tender documents should be posted on IR websites for wider publicity. Details of purchase contracts finalized including details of bidders qualified after technical examination, name of successful bidder, whether successful bidder was the lowest bidder, value of contract, scheduled date of completion must be posted on IR websites (b) Pre-qualification criteria, performance criteria and bid evaluation criteria must be spelt out clearly in bid documents. (c) Adoption of E-procurement and E-payments for all procurements (d) If the lowest bidder withdraws bid, re-tendering should be done (e) Tender should be awarded within maximum of one month from date of submission of recommendations by evaluation committee. Tenders should be finalized within the validity period of offers and extension of validity should not be sought from bidders (f) Tender evaluation committee members must give an undertaking that they have no personal interest in the companies participating in the tender.

4.2.1.7 CVC's CTE Unit The technical wing of the CVC (known as CTE or Chief Technical Examiners' Unit) assists the CVC in formulating its views on technical matters of the cases. The CTE also undertakes sample intensive examination of ongoing procurements from the list of such high value activities furnished by the vigilance organizations of Ministries.

The CTE regularly points out various loop holes detected during its intensive examination of procurement processes, for attention of IR's top management and vigilance organization. A few representative examples are: (a) Rates estimated through use of compounded rate of inflation over the last purchase price, which might lead to purchase at a higher price. (b) Sufficient publicity of tender notice not given in national newspapers or sufficient time period not accorded for invitation of bids (c) Pre-qualification terms or evaluation terms not clearly defined. Pre-qualification process should be transparent, fair and strive to promote competition. It should be

based only on experience, past performance and financial capability of the supplier (d) Inadequacy of performance guarantees.

4.2.2 IR's top management According to the principles laid down in the various Codes, the primary responsibility of oversight rests with IR's top management at the Division, Zone and Board levels. Thus top management is expected to carry out checks as well as carry out preventive measures advised by Railway Board or other oversight bodies from time to time.

Except where criminal cases are instituted against IR's personnel, the IR's top management has also been vested with powers to decide the manner in which to deal with transgressions reported by other oversight bodies. The CVC's advice to IR on the various cases is considered as recommendations and IR is not bound to follow the recommendations; the disciplinary authority has the final say in such matters. The CVC's annual reports list instances where its recommendations for disciplinary action have not been agreed by IR; the CVC annual report of 2009 lists 8 such instances relating to IR. This over-riding power has been possibly given in view of the fact that the IR's top management is aware of the circumstances under which a transgression has been committed and it would be the best placed to decide the appropriate action.

4.2.3 CAG & PAC The Comptroller and Auditor General (CAG) of India is appointed by the President of India under Articles 148 to 151 of the Constitution of India. The representative of the CAG in the IR, the Additional Deputy Comptroller and Auditor-General of India (Railways), is empowered to examine all procurement cases to ferret out instances of irregularities committed in award of contracts or instances of wasteful expenditure. For this purpose he is assisted by Chief Auditors posted on all zones and manufacturing units.

The CAG submits an annual report on such instances to the Public Accounts Committee (PAC) of the Parliament. The PAC has the power to summon any executive to explain instances of irregularities detailed in the CAG reports. The PAC can recommend disciplinary action against the erring executive and IR has to report back to the PAC on the action taken on the PAC's recommendations. The PAC regularly submits the report of such compliances to the Parliament.

A few representative instances of procurement irregularities alleged in CAG's reports to the PAC over the last five years are: (a) Placement of purchase order with specification different from that

indented, resulting in rejection of materials on receipt (b) Placement of purchase order on Indian agents, rather than negotiating directly with manufacturers abroad, resulting in procurement at a much higher price (c) Procurement at a higher price due to failure to enforce “fall clause” on supplier (d) Procurement at a higher price due to Tender Committee not giving a counter offer of rates offered by Part 2 suppliers (d) Improper framing of specification leading to procurement of machinery incapable of functioning in tropical conditions (e) Improper estimation of quantity of an item with limited shelf life leading to loss or high inventory (f) Non-recovery of liquidated damages for defective equipment supplied (g) Incorrect design of price variation clause in purchase order leading to loss.

The CAG’s report to the PAC also contains recommendations for improvement of the procurement processes; a few representative recommendations over the recent years are: (a) IR should lay down specific time frame for procurement from indenting to receipt of materials (b) IR should explore the possibility for long term tie-ups with vendors (c) strengthen system of information sharing amongst various units of IR on rates charged by the vendors (d) strengthen system of monitoring quality of supply by vendors.

It is evident that this is quite a powerful method of control of the executives, in ensuring accountability and improving the procurement processes.(Comptroller & Auditor General of India n.d.)(Parliament of India n.d.)

Other than the PAC, the Parliament of India maintains oversight over the functioning of the Indian Railways through other means such as:(Ministry of Railways 1991)

- a.** Discussions and resolutions in regard to presentation of budget and voting in Parliament.
- b.** Members may raise questions regarding the working of Railways in the Parliament, which is required to be replied by the Minister either orally or in writing. A Standing Parliamentary Committee on Government Assurances scrutinizes the implementation of promises, assurances or undertakings given by the Minister in Parliament within reasonable time frame.
- c.** The Railway Convention Committee periodically examines the working of the Railways while deciding the rate of dividend payable by the Railways.

- d. The Estimates Committee examines the budget estimates to suggest reforms to bring about administrative efficiency.
- e. The Committee on Railways is a standing Parliamentary Committee which examines the Budget Demand for Grants, Bills pertaining to Railways referred to it by Houses of Parliament, Annual Reports and long term policy documents submitted to Parliament.
- f. Committee on Subordinate Legislation is a standing Parliamentary Committee which examines whether the power to make rules, regulations etc. conferred by the Constitution or delegated by Parliament are being properly exercised by the executive

4.2.4 Judiciary The judicial system is an important oversight body for examining the constitutional validity of procurement policies and procedures adopted. The judicial system also plays a major role in pushing reforms in the procurement process through various directives to the Government. A classic example is the directive of the Supreme Court to provide statutory powers to the CVC in the Vineet Narain vs. Union of India case of 1997, which ultimately resulted in the enactment of the Central Vigilance Commission Act 2003.

5. Impact of Procedures and oversight bodies

The corruption risk framework outlined in Transparency International’s (TI) Handbook for Curbing Corruption in Public Procurement is used to analyze the efficacy of procedures and oversight bodies in IR’s procurement process in Table 3.(Transparency International 2006)

Table 3: Corruption risk framework analysis

Phase	Risks of corruption outlined in TI’s Handbook	Efficacy of procedures and oversight bodies
<i>Needs assessment phase/ demand determination</i>	<ul style="list-style-type: none"> a. Procurement is not necessary b. Demand is over-estimated c. Procurement is economically unjustified d. “Tagged contract” or procurement planned from a “pre-arranged” contractor 	<p>Since procurements require administrative approvals at higher levels, as well as necessary budget allocations such manipulations are not possible to be done by the level executing the procurement process.</p> <p>In case, such manipulations are done by the executing levels at the behest of higher levels in the hierarchy there are a number of safeguards built into the system:</p> <ol style="list-style-type: none"> 1. Stores and Accounts Departments need to be convinced. Functional departments cannot exert undue influence on the Stores and Accounts Departments, unless they can convince them that

		<p>the item is required either urgently or will improve efficiency or is economical in some way. The explanation given by the Functional Department can be subjected to scrutiny by the CVC or CAG.</p> <p>2. Stores and Accounts Departments might be “ordered” to procure through intervention of an authority higher up in the echelon (say the GM or Railway Board). However such an order can be issued only after recording reasons thereof; such reasons can be subject to scrutiny by the CVC or CAG.</p> <p>Any scrutiny by CAG or CVC can result in recommendations for disciplinary proceedings against the official, irrespective of rank in the hierarchy. While IR retains the right to disagree with any such recommendations, such cases of disagreement are brought to the notice of the Parliament which is the highest constitutional body in the country.</p>
<i>Preparation phase/ process design & bid documents preparation</i>	<p>a. bidding documents or terms of reference designed to favor a particular provider</p> <p>b. un-necessary complexity of bidding documents used to create confusion to hide corrupt behavior and make monitoring difficult</p>	<p>The safeguards discussed in “needs assessment” phase will be applicable in this phase in respect to items a and b.</p> <p>Further Railway Board has formulated the Standard Conditions of Contract (SCC) which must be adhered to by all units of IR for procurements. Deviations from SCC will require approval from the Accounts and Legal Departments. Deviation from Standard Conditions of Contract will also immediately attract the attention of CAG and CVC, in terms of assessing its necessity and impact.</p>
<i>Contractor selection and award phase</i>	<p>a. decision makers are biased (bribes, kickbacks or conflicts of interest involved)</p> <p>b. Selection criteria are subjective in ways that allow biases to play a role and remain unattended.</p> <p>c. An advantage to a particular bidder is granted through the exchange of confidential information before bid submission or during the clarification period. Clarifications are not shared with all the bidders.</p> <p>d. Confidentiality is abused and extended beyond legally protected information making monitoring and control difficult.</p> <p>e. The grounds for the selection of the winner are not made public (transparency of bid evaluation).</p>	<p>To obviate item (a), a Tender Committee is formed with representatives from the Stores, Accounts and user departments. It is highly unlikely that all three representatives will become biased together. If any member of the Tender Committee disagrees with the other two members, the member usually records the disagreement (and its reasons) as a dissent note. Further the decision of the Tender Committee is not final- the accepting authority is free to accept, reject or modify the recommendations of the Tender Committee. Tender Committee minutes are subject to scrutiny of CVC and CAG.</p> <p>In regard to items (b) and (e), the selection criteria is discussed and recorded in the Minutes of the Tender Committee, which forms part of the Tender Committee proceedings. These Minutes may be subjected to vigilance or audit scrutiny at a later date.</p> <p>There is no direct mechanism for prevention of abuses listed in items (c) and (d). However, if a rival bidder lodges a</p>

	<p>f. Excessive (unnecessarily high) price as a result of limited or non-existent competition.</p>	<p>complaint with IR's vigilance, CVC or CBI there are established procedures for investigation of such complaints. The concerned official may be required to explain lapses and/or the tender may be cancelled in such eventualities.</p> <p>A situation of excessive price due to limited competition, as described in item (f), should be discussed in the Tender Committee and appropriate action taken by the Tender Accepting Authority. Otherwise, it might attract attention of CVC and CAG.</p>
<p><i>Contract implementation phase</i></p>	<p>a. Winning bidders/contractors compensate bribes and other extra payments with poor quality, defective or different specifications than those contracted. Faulty or sub-specification work execution, requiring early repairs or expensive correction.</p> <p>b. Contract renegotiation or "change orders" introduce substantial changes to the contract, often in small increments that can be decided by site engineer.</p> <p>c. Price increases during execution through "change orders" reflecting changes in specifications or cost increases, facilitated often by collusion between corrupt contractor and corrupt control official.</p> <p>d. False or in-existent claims are filed.</p> <p>e. Contract supervisors or monitors are "bought" or are not independent and willing to justify false or in-existent claims.</p> <p>f. Contract renegotiation is allowed or performed introducing substantial changes that render the bidding process useless.</p>	<p>Purchase Orders are issued by the COS Office after Tender Committee's recommendations are considered by the tender accepting authority. The inspection of the material is usually done by a third party (other than Stores or User department). The material is received and stocked by the Stores Department; during the process of receipt, the Stores Department can inspect and reject the material if it does not conform to specifications (in the opinion of the Stores Department). The user department can also reject the material while receiving it from the Stores Department if it feels that the material does not conform to specifications. Thus there are checks at every phase to ensure that defective material is not supplied by the contractor in a situation described in item (a).</p> <p>The situation described in items (b), (c) and (f) does not arise since the COS office can only change the purchase order once issued. Such changes are usually in regard to extension of delivery period or changing the quantity ordered (if the original purchase order contained provisions for such changes). Revised purchase orders are issued only after approval of the Accounts Department, which is required to check the original tender documents to ensure that such changes do not vitiate the bidding process; for example if a particular bidder has been selected on basis of early delivery, extension of delivery period will not be granted. Price increases are allowed only in Purchase Orders having price variation clauses, wherein the whole or part of the price is tied to a price index. No other changes to purchase orders are allowed.</p> <p>Situations described in items (d) and (e) could arise if the contractor claims to have sent to material by railway transport but the material is actually not received by the Stores Department. Since the documents of proof of dispatch by railway transport are issued by the Commercial Department, such instances will be taken up for investigation by the Stores Department. In case part</p>

		<p>payment had been made to the contractor on basis of documents of proof of dispatch, the Accounts Department will also investigate the issue. Such investigations are also likely to invite attention of CVC and CAG.</p>
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It might appear that the proper functioning of the procurement system relies to a very large extent only on continual oversight by IR's vigilance department, CVC, CBI and CAG and their monitoring by Parliamentary Committees. While lapses in oversight may lead stray incidences of corruption, a few major mechanisms hinder sustenance of deviant behavior. These mechanisms are: (a) Adoption of open tendering system in general and resorting to limited and single tender system in exceptional circumstances. Limited tenders are also advertised in media every now and then to seek out new vendors and prevent collusive or cartel behavior between existing suppliers and procurement officials (b) Strict adherence to procedures laid down in the Codes is required in all IR units at all levels of hierarchy. Deviations from procedure can immediately invite disciplinary action even for the highest level of IR's hierarchy. (c) All procurement contracts of IR have to be drawn up according to the Standard Conditions of Contract formulated by the Railway Board. In case of any accompanying Special Conditions of Contract, none of the clauses of the Special Conditions of Contract can over-ride the Standard Conditions of Contract. (d) Segregation of User, Accounts and Stores department with different chains of command making collusion very difficult. (e) Limits on tenures of User, Accounts and Stores department officials in positions and locations dealing with procurement to prevent familiarity with suppliers (f) Matrix form of management enables seamless flow of technical knowledge and guidance in preparation of specifications, technical evaluation of bids and formulation of inspection methods (g) Continuous review of rules and procedures of procurement to plug loop holes on advice of CVC and CAG (h) Established procedure for dealing with complaints and tip-offs within the IR's vigilance department, CVC and CBI (h) Residual processes of monitoring of lifestyle of decision makers to assess whether assets match with known sources of income.

These mechanisms have successfully developed due to IR's organization structure and characteristics and institutional mechanisms to enforce public accountability. IR's organization structure enables development of ownership in its executive personnel through (a) life time career in the same organization (b) exposure of working in different units of IR (c) exposure to

all functional areas while working in general administration positions (c) protection and security of service (d) strong disciplinary and reward mechanisms and (e) well defined hierarchy and span of control. This feeling of ownership eventually translates to development of pride and professionalism of the services. Further the functional segregation and cadres with separate chains of command right up to the Board level, ensures that each department acts as a check on other departments. The Parliament's control through the CAG, CVC and Parliamentary Committees enforces and guides the sense of public accountability amongst its executives. The constitutional and statutory safeguards built into the offices of CAG and CVC, together with an independent judiciary, ensure their functioning without them being unduly influenced or coerced.

The CBI, CVC, IR vigilance department and the CAG's organization combined have less than 10 thousand employees; on the other hand the IR's Stores Department alone has over 30 thousand employees. However, in spite of being grossly out numbered these oversight bodies are able to exercise some degree of control through the element of uncertainty; no one knows which purchase order will be taken up for intensive scrutiny by these oversight agencies. In game theoretic parlance, these can be termed as outguessing games, where both parties know the key to winning is to hide, never trust and always strive to deceive. If a person is habitually corrupt, the person will definitely come under the scanner of any of the oversight agencies. However if there is also an uncertainty in the corrupt behavior of the person, there is a likelihood that the person may never be apprehended.

6. Conclusion

CVC defines that transparency, fairness, value for money, quality and time should be the key watchwords for public procurements. The cardinal objectives of public procurement processes, according to the World Bank, are economy, efficiency, transparency and accountability. (World Bank 2003).

It is observed that a unique combination of internal vigil and external oversight by independent bodies promotes transparency and accountability. Fair and equitable treatment to all vendors and promotion of competition through open tenders ensure economy and value for money. A dedicated procurement organization in each zone ensures efficient and swift response to user needs. Participation of the user in the technical evaluation of offers and tender evaluation process

ensures quality and value for money. A decentralized procurement organization also ensures that its sensitivity to user quality requirements, since it is also accountable to the zonal head.

IR's scale of operations require an efficient and economical procurement system in order that it can maintain its 24 by 7 services. It thus maintains a fine balance between aspects such as central and de-centralized procurement or open tenders and limited tenders for critical spares. While ensuring that there are strong oversight mechanisms in place, it cannot allow demoralization to set in its work force due to punishments meted out for minor infractions. IR's over-riding powers to the top management in this regard is again subject to Parliamentary oversight.

IR's distinctive set of procurement processes and safeguards which have evolved over time are therefore worth emulating in other public systems.

Bibliography

Bovis, Christopher H.(2007). EU public procurement law. Cheltenham: Edward Elgar Publishing Limited.

Central Bureau of Investigation. *Central Bureau of Investigation*. Central Bureau of Investigation. <http://cbi.nic.in/> (accessed April 8, 2012).

Central Information Commission. *Central Information Commission*. Central Information Commission. <http://www.cic.gov.in/> (accessed April 8, 2012).

Central Vigilance Commission. <http://www.cvc.nic.in> (accessed March 30, 2012).

Comptroller & Auditor General of India. *Comptroller & Auditor General of India*. <http://www.cag.gov.in/> (accessed April 8, 2012).

International Labor Organization. *LABORSTA internet*. <http://laborsta.ilo.org/default.html> (accessed March 26, 2012).

Ministry of Finance, Government of India.(2011). Economic Survey 2010-11. New Delhi: Ministry of Finance, Government of India.

Ministry of Railways. <http://www.indianrailways.gov.in> (accessed March 30, 2012).

—.(1990) .Indian Railway Code for the Stores Department. New Delhi: Ministry of Railways.

—.(1998).Indian Railway Financial Code. New Delhi: Ministry of Railways.

- .(1991).Indian Railways Administration and Finance. New Delhi: Ministry of Railways.
- .(1997).Indian Railways Code for the Accounts Department. New Delhi: Ministry of Railways.
- Ministry of Railways.(2009). White Paper on Indian Railways. New Delhi: Ministry of Railways.
- Ministry of Railways.(2011). Year Book 2009-10. New Delhi: Ministry of Railways.
- Parliament of India. *Parliament of India*. National Informatics Centre. <http://www.parliamentofindia.nic.in/> (accessed March 28, 2012).
- R.N.Saxena.(1991). Four Decades of Indian Railways (1950-1990). New Delhi: Academic Foundation.
- Research Design & Standards Organisation. *Research Design & Standards Organisation*. Research Design & Standards Organisation. <http://www.rdso.indianrailways.gov.in/> (accessed April 8, 2011).
- Second Administrative Reforms Commission, Government of India.(2007). Ethics in Governance. New Delhi.
- Supreme Court of India. *Judgement Information System*. <http://judis.nic.in/supremecourt/chejudis.asp> (accessed April 8, 2012).
- Transparency International.(2006). Handbook for Curbing Corruption in Public Procurement. Berlin: Transparency International.
- World Bank.(2003). India Country Procurement Assessment Report. New Delhi: World Bank, South Asia Region.