

To Study Material Procurement and Vendor Development InFocus for Pune Real Estate Sector

Avinash K. Chaudhari¹

M.E. Students (Construction & Management), Department of Civil Engineering
D. Y. Patil Institute of Engineering & Technology, Ambi Pune

Abstract- The main aim of work done is to understand the procurement processes and vendor development practices adopted by the contractors engaged in road and highway projects and this is done by interviewing the contractors. Here different issues regarding the procurement processes in different level of industries are analysed. Cases were obtained from the main contractors and the findings were compared with findings from literature and journals.

I. INTRODUCTION

The study explores in detail the procurement and vendor development practices of contractors engaged in Roads and highways projects in India. It focuses on chain between Highway Authority of India, main contractors and their sub-contractors. This study helped us to know the various material procurement approaches, competitive processes seeking multiple bids, supplier selection processes, best vendor development practices and evaluation process of vendors. After the collection of data, analysis among the various methods was made along with the use of AHP model for selection of vendors. Two cases of main contractors have been taken and studied about the material procurement processes and vendor development practices adopted by the main contractors.

II.OBJECTIVE

Buying or Purchasing

- Procuring and receiving
- Storing and inventory control
- Supply and distribution of materials
- Quality assurance
- Good supplier and customer relationship

- Improved departmental efficiency

To fulfill all these objectives, it is necessary to establish harmony and good co-ordination between all the employees of material management department and this department should have good co-ordination with the other departments of the organization to serve all production centers.

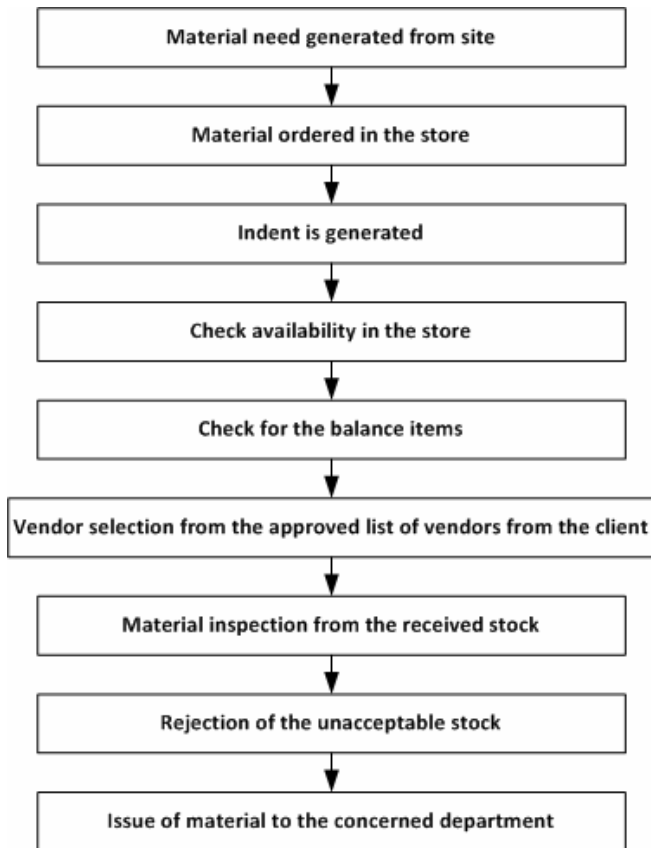
An attempt is made to explore the finding of the importance of procurement of material and services to project promoters engaged in road and highway projects which initiates them to adopt the most efficient methods in order to ensure the smooth flow of the execution of the Project, thereby avoiding delay and cost overrun of projects. It also includes the study of vendor development practices.

III. LITRATURE SURVEY

Components of material management are:

- Material estimation, budgeting, planning and Programming.
- Scheduling , purchasing and procurement
- Receiving and inspection.
- Inventory control, storage and warehousing.
- Material handling and transport.
- Waste management.





4.2.1 Organizational weakness

An absence of systematic record-keeping pertaining to the execution of the projects, lack of preplanning and a superficial understanding of contract clauses and documents were the other factors that contributed to procurement delays.

4.2.2 Supplier default

The market by some suppliers, work stoppages in factories manufacturing materials, fluctuating demands forcing suppliers to wait for accumulation of orders and difficulties in importing required raw materials from other countries.

4.2.3 Governmental regulations

It can also be used to extract payoffs by compromising on quality. Delays can be used to extract payoffs, because often the cost of waiting is higher for supplier than the public servant

4.2.4 Transportation delays

On rainy days transportation of materials like cement should be avoided to ensure that the material remains dry and fit for

use. These are the rankings made based on the previous studies

4.3 Procurement Approaches

The produced novel procurement components and procurement approaches are

4.3.1 Pre-Qualification and Negotiation

Contracting firms can procure materials based on negotiations with respect to the scope-of-work and other considerations. This streamlined process produces a positive effect on the project outcome.

4.3.2 Invitation to Negotiate (ITN)

An overview of the activities involved in the ITN procurement approach is outlined below:

- Contractors develop and release an ITN.
- Interested vendors respond to the ITN.

4.3.3 Performance-Based Contracting

- Motivates the development and implementation of new ideas
- Direct relationship between performance and pay
- Provides for greater management attention to the project

4.4 Procurement Processes of Seeking Multiple Bids or Proposals

The “descriptive features” is discussed below to ensure clarity on the procurement processes used in the procurement policy.

4.4.1 Request for Proposal

Select the proposal that earns the highest score and meets the requirements specified in the competition, based on qualitative, technical and pricing considerations.

4.4.2 Request for Tender

Implement an effective, objective, fair, open, transparent, accountable and efficient process for obtaining competitive bids based on precisely defined requirements for which a clear or single solution exists.

4.4.3 Informal Procurement

Cost effective manner through phone, fax, e-mail, other similar communication method, vendor advertisements or vendor catalogues.

4.4.4 Non-Competitive Procurement

Provide for any additional exceptions stipulated in the owners purchasing policies, providing that they are not in contravention of the interprovincial trade agreements.

4.4.5 The “Two-Envelope” procurement process

The “two-envelope” process is used when a request for proposal (RFP) is issued. In this process, each bid is submitted in two envelopes with technical and qualitative information shown in the first envelope and the bid price in the second. The second envelope is opened only if the first envelope shows the bidder is qualified. This process is suggested and should be provided in the procurement policies.

4.4.6 Vendors of record (VOR)

The goals are to have a qualified, reliable, cost effective provider available when the need arises without facing the administrative costs of obtaining several quotes.

4.5 Vendor Development Processes

4.5.1 Vendor Management System

The vendor management system is for supporting the good quality of material, delivery on time, good service and cooperation, reasonable price, strong and close relationship to continuous improve, etc.

4.5.2 Manufacturing System

The Manufacturing system is included internal manufacturing management system, quality management system, preventive maintenance, production scheduling and planning, capacity planning, supporting tools such as SPC, etc. All activities are conducted to achieve the customer satisfaction.

4.5.3 Customer and Customer satisfaction

The customer requirement will be effect to the manufacturing system and vendor management system. The customer satisfaction is treated as the most important key success for company and customer feedback is important for company improving.

In this research, we studied on the Vendor Management System (VMS), and propose the model for the full improvement system other than selection and evaluation

process, we also included the maintaining process for supplier development that are proposed phase by phase.

4.5.4 Initiating the project

Define the supplier processes, assess the client needs and assess the business environment.

4.5.5 Developing the process

Critical activities occur in this phase: create solutions, select solutions and develop new processes, plan implementation.

IV. DATA COLLECTION AND ANALYSIS

5.1 Material procurement Processes

In order to collect the information regarding different types of procurement processes used in different circumstances, ten sets of questionnaires were distributed to the targeted respondents. About five sets were distributed to the contractors and five sets to the consultants. The questionnaire survey was completed by directors, project managers, project engineers, site manager, designers/engineer, and supervision engineers.

5.1.2 Analysis of Results

The objective of conducting the analysis is to know the best procurement process adopted by the various contracting firms used under different circumstances and the ranking was given according to their applicability in given circumstance.

5.2 Vendor Evolution and Selection

An AHP is a structured technique for dealing with complex decisions. It helps decision makers to find out which is the best suitable vendor of their needs. It aims at quantifying the relative priorities for the given set of the alternatives on the ratio scale, based on judgment of decision makers and stresses the importance of initiative judgment of decision maker as well as consistency of the comparison of alternative decision making process.

V. CONCLUSION

This research work helped us to know the present material procurement processes and vendor development practices adopted by the contractors engaged in road and highway

projects. It completely depends upon the quantity of material to be procured, different levels of firms, availability of suppliers and supplier capabilities. The contractors should get into the partnership with the vendors in order to improve the efficiency of the business which increases the profit and reduces the delays due to procurement. Best procurement process should be followed based on the type of work executed and best practices for the development of vendors should be followed. Their rating and evaluation should be done efficiently.

VI. REFERENCES

1. Lenders micheil r and anna e Flynn-value driven purchasing professional publishing burridge 1995
2. Zenz, Purchasing and the Management of Materials. John and Wiley & Sons, USA, 1987
3. A report of Marlene j. Suarez bello UNIVERSITY OF PUERTO RICO MAYAGÜEZ CAMPUS “Government policy initiatives.” Online: National Highway Authority of India <http://www.road and highway projects.org>
4. Federal Highway Administration. Design-Build: FHWA’s Role in the
5. Design-Build Program Under Special Experimental Projects No. 14, 1996.
6. www.elsevier.com/locate/ijproman International Journal of Project Management 20 (2002) 627–632
7. National Highway research programme (NCHR) reports
8. www.nsw.gov.au/procurement
9. www.projectaffiliates.com
10. Degraeve and Roodhooft, “Effectively Selecting Supplier using Total Cost of Ownership”, The Journal of Supply Chain Management: A Global Review of Purchasing and Supply, 1999, pp. 5-10.
11. Ballou, Business Logistics Management. NJ: Prentice Hall, 1999
12. Dickson, “An Analysis of vendor selection systems and decisions”, Journal of Purchasing, 1966, pp. 5-17.