RESEARCH ARTICLE OPEN ACCESS

# A Review Paper on Analysis of Procurement Methods Used In Construction Industry Using Sampling Techniques

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MCN UI/R&D/2018/MCN000331

## **Abstract:**

The aim of this study for establishing an effective materials procurement strategy to magnify the production of building by the using of sampling analysis technique. The purpose of procurement definition is to describe in particular terms what items will be procured and under what conditions. Sometimes items which must be procured for a project can be made internally by an organization. Additionally, procurement deadlines are usually influenced by the project schedule and are needed by certain times to ensure timely project completion. This section is where such items must be listed, justified, and the conditions must be set. Any important technical information should also be included. Individuals may also be listed with authority to authorize purchases in addition to or in the absence of the project manager. The concept is focus directly at producing buildings, where the process of construction and life-cycle of operation, encourage a better quality of living for the inhabitants over a long period of time, putting into consideration the use of energy, water, land and material resources at every stage of construction.

**Keyword-** Procurement Deadlines, Life Cycle, Technical Information, Approve Purchases, Procurement Strategy.

### 1. INTRODUCTION

ISSN: 2395-1303

The purpose of procurement definition is to describe in particular terms what items will be procured and under what conditions. Occasionally items which must be procured for a project can be made internally by an organization. Additionally, procurement deadlines are usually influenced by the project schedule and are needed by certain times to ensure timely project completion. This section is where these items must be listed, justified, and the conditions must be set. Any important technical information should also be added. Individuals may also be listed with domination to approve purchases in addition to or in the absence of the project manager. "a procurement system is an organizational system that allocate specific responsibilities and authorities to people and organizations, and describe the relationships of the various elements in the construction of a project.

#### I. Literature Review

ShamilNoumn (2003)various procurement procedure for project like management contracting, project management and design build over three decades. Researchers have investigated that the standard of their selection and performance in terms of cost, time and quality. In this paper it is inspect about the lean construction, supply chain, build sustainability, and value management. It is important of construction management that a project may be successful if the building is completed as scheduled within budget with quality standards as well as attains a high level of client satisfaction. A procurement system is an organization system that allocates the responsibilities and power to people and organization structure.

Per Erik Eriksson (2013)The construction projects are most widely characterized by high complexity,

#### International Journal of Engineering and Techniques - Volume 4 Issue 3, May 2018

customization and uncertainty coupled with long duration. The aim of this paper is to understand how selection of procurement procedures affects project performance. The paper develops a testable procurement model that cans collaborative procurement procedures. The construction industry is an important part of economical spinal column in many countries about 7-10 percent of the gross domestic product procurement procedures is one factor improvement area and can contribute sustainability to project success.

Laura Pekuri (2012)Problem of procurement may be in the fields of economics as well as engineering and construction management. Some words as budget, weak productivity, customer satisfaction, schedule delays. There are some implement a technologies are developed in the construction industry. It has been acknowledge in previous research that the clients can have a vital role in the way of construction industry. The problem of procurement in economics sector as lack of the cost of market information of items and also related to the uncertainty of design of project. Tadlis (2005) recommend that procurement problem should be the essentially after the project begins.

Love .P (1998)From the starting point of project clients want to ensure that they can attain the solution they require within their established budget and by an acceptable date in the future. This may be best achieved if the client tries to find independent advice on these matters from the starting from an experienced construction professional, such as a consultant project manager (Love and Mohamed, 1996). In meeting the essentiality of the business case, where there is particular target on building function or running costs, or speed to completion or capital cost, an experienced liberated project manager can range these needs to an appropriate procurement strategy.

Al-Bahar And Crandall (1990)The formation of a procurement strategy that identifies and most important key project objectives as well as reflects features of risk, and establishes how the process will be arranged are keys to a successful project result (Al-Bahar and Crandall, 1990). The different and bespoke nature of building projects means that clients who determine to build are always confronted with high level of risk. These risks involve completing a project that does not meet up the functional needs of the business, a project that is delivered later than the beginning programmed or a project that costs more than the client's capacity to pay or fund. All these risks potentially could have an collision on the client's core business. Accordingly, a procurement

strategy should be developed that stability risk against the project objectives that are accepted at an early stage.

Morledge (2006) The acceptance of an appropriate project team to convey a project at the right time, for the right cost given the affect strategy is a vital role for the client, who again should take independent advice (Morledge et al., 2006). Throughout the selection of the project team, superior outcomes are achieved when 'value' is considered over and above the price for the service that is being offered (Holt et al., 2000). Then procurement methods that authorize a high level of integration and collaboration between project team members are consider being desirable.

Petrick F.(2006) Construction management has been widely used in U.S and sometime in Australia. It is new procurement method for Asian countries. This system based on arrangement where a client appoints a (CM) on a fee basis to manage and co-ordinate the design and construction of project. This paper examines the roles of a (CM).It analyses the structure, responsibility of parties involved. Increasing complexity of buildings, there is need for a financial planning, need to reduce design and construction periods. Tam (2000)the buyer may use a simple option contract that essential suppliers have to pay an up-front fee. However, this may not be realistic if the firms have restricted liability or liquidity compel, so the buyer cannot charge considerable entry fees.

R. E. Smith (2011) the role of the client during these changes has developed from one of a passive fund provider to an increasingly active participant and hands-on to management in some of the procurement arrangements.

Water R. Jr. (2011)the management and arrangement of the project requirements and design are two main factors that determine all subsequent procurement activates.

Kerzner (2001)Client requires the construction of many different facilities, (for example, structures, dams, streets) for different reasons. What is normal to all clients, notwithstanding, is that they require their activities to be finished interior determined time, budget and particular quality guidelines all together for the finished project to be satisfactory or not or fit for use by the client or proposed end client.

G. ballard (1999)comprehensively defines the collective bargaining process as one essential by a conflict of requirement, interests, goals, values, perceptions and ideologies, but also resting on a

commonality of interest, whereby employees and their agents, and employers and their representatives, negotiate in order to simplify some balance between the fulfillment of the needs and the objectives set for each party.

Chan, A. (2003)'An Empirical Study of the Benefits of Construction Partneringand Parameter of procurement process and to be procured

- a) Quality-The ISO 9000 definition of quality is "the degree to which a set of inherent characteristics fulfils requirements". In construction related activities, a client's needs are usually interpret into a series of identification that the builder or contractor undertakes to construct through a planning, briefing and design process. Appropriate specifications and compliance with the specification are therefore a factor measure of construction quality.
- b) Time management- In construction also is major because, if projects are not finished in a timely manner, or at least as quickly as promised, then this can void a contract and cause the construction company to reduce payment for breach of contract.
- c) Costdetailed- cost evaluating is the process of predicting the cost of a facility through quantitative analysis of the work required by the design documents. Although not always required by clients, detailed cost estimates can be an important part of overall cost management and budget adherence.

Master Man (2005) Suggest that more studies should be manage in other countries to account for the nature and structure of the local construction industry, level of construction project procurement strategies ,maturity of the concerned organization and local cultural values and norms.

Figgins.L (2001)the existing mechanisms of procurement of projects and the means for improving the execution of projects to attain successful outcomes for the advantage of all the stakeholders and general public with the help of E procurement.

NgamMinchuan (2016) This paper mainly target on the study on the supplier selection of infrastructure building and notice out the relation between the decision makers, buyers and users. Suppliers selection has a vital strategic decision for clients of many industry. Supplier selection can be defined as in both ways like qualitative and quantitative factors this paper give a framework supplier selection for infrastructure building and find the successful procurement criteria of projects. In recent years both sectors like private and public organization have

played more attention on these factors like cost depletion and flexibility

#### I. CONCLUSION

Procurement in construction sector should be applied on the basis of primary factor like cost time and quality.Procurement Selection criteria are depending on performance enhances and some different methods are applied on procurement that could minimize procurement related problem as economic issues and construction management issues. Procurement in construction sector is a primary and vital need of construction after the planning and designing process.In different procurement methods like construction management procurement method, management contracting method, traditional method and E-procurement method, we analyze that the best method E-procurement and construction management method in which E-procurement most widely used in India. After analyzing both methods E-procurement is time saving method and its provide better efficiency.

#### ACKNOWLEDGEMENT

I would like to thanks to my supervisor Er. ANWER AHMAD (Associate. Professor, Civil Engineering Department), who spared me good deal of his extremely precious time giving me helpful guidance throughout the course of this work

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