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**SUBCONTRACTOR PERFORMANCE, EVALUATION AND RATING**

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**ABSTRACT**

Main contractors have shifted their attitudes about subcontract procurement to more strategic and long-term partnering philosophies. A case study was conducted to evaluate the framework with subcontracting strategy, performance weighting, evaluation of subcontractor performance data, and feedback methods. As the strategic performance feedback model, the balanced scorecard concept was adopted with modification. The research results obtained can be useful as a guideline of subcontractor management to enhance overall productivity.

**KEYWORDS:** Subcontractor Performance, Rating Analysis, Evaluation method, Subcontractor selection

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**INTRODUCTION**

**BACKGROUND**

Subcontracting is probably most prevalent in the construction industry, where builders often subcontract different activities and produce a substantial portion of construction work under the supervision of general contractors. The contribution of subcontractors to the total construction process can account for as much as 90 percent of the total value of a construction project.

In the construction process efficient subcontractor operation is expected to be beneficial to all parties involved, including the owner, general contractor, and the subcontractors themselves. Subcontractors bear responsibility for much of the productivity achieved on the construction site. Though subcontracting has significantly affected site productivity, it is never included as a key factor in productivity research studies. An efficient subcontractor always acts for a hassle-free execution of the activities giving no headache to the prime or main contractor. Most of the subcontractors keep a long term relationship with the main contractor when there is an opportunity for growth in the organization.

In order to improve subcontractor productivity, subcontractors should be familiar with modern construction/production methods. The reason being modern construction/production methods are expected to reduce the duration and cost of construction projects. Productivity can also be improved by effective quality management. There also seems to be an agreement between the parties that subcontractors, familiarity with modern management techniques and their efforts to reduce accident rates and motivate workers constitute

secondary measures for improved productivity. Due to the numerous working interfaces, complicated networks, and diversified team members of a large construction project, coordination efficiency among members of the construction team is vital to the success of construction project. Subcontracting does pose some potential pitfalls, however, such as a loss of control over the quality and timeliness of work causing a serious concern over the reputation of the contractor.

**NEED OF THE STUDY**

In the current globalized arena, construction companies are facing a stiff competition for global players. To match with standards laid out by the global players, construction firms have to achieve perfection in their planning and execution.

Several construction industry reports have pointed out that a decline in construction quality and productivity could be attributed to the performance of subcontractors; yet subcontractor performance appraisal is a much neglected subject in construction.

Poor performance of subcontractor results in poor quality of the products and time delay in construction resulting in cost and time over run. This can be eliminated by proper selection of subcontractors when past performance data is available. Performance evaluation of subcontractors provides a base for selection of subcontractors based on the importance of work and capability of subcontractor.

**OBJECTIVES**

The main objective of our project is to select an efficient subcontractor by comparing them in various ways.

Subcontractor performance evaluation and rating (SPER) is aimed at Achieving following objectives:

1. To improve the performance of subcontractors working in a firm.

2. To ensure to the fullest extent utilization of qualified subcontractors by awarding work in which they are competent.
3. To improve the effectiveness of the project delivery at reasonable costs, There by acting in the interest of the prime contractor.
4. To create a continuous record of the performance of subcontractors in the firm to:
  - Identify subcontractors who are rated with less than satisfactory performance will be informed of the need to improve their performance in order to avoid being suspended from work.
  - Avoid award of work to subcontractors who has a record of unacceptable performance.
5. To have a system that will permit the achievement of the foregoing objectives and will be fair to contractors and lead to consistent evaluations.

#### **IDENTIFYING EVALUATION FACTORS:**

The primary step in our project is to evaluate basic parameters of Subcontractor such as professional conduct & Habits while working in the Construction site. Success of the project mainly concerned with the basic criteria that we are planning. This makes as to take the project to the next step.

#### **PREPARATION OF QUESTIONNAIRES:**

The second step of our project is to set questionnaires. It should contain basic questions regarding performance of subcontractors, Quality of work, project under taken & Duration of the project. More over in the questionnaires should reveal the details about the entire project.

#### **COLLECTING QUESTIONNAIRES FROM VARIOUS CONSTRUCTION SITE:**

The third step of our project is mainly concerned with the selection of construction site & prescribed zone. The Questionnaires should be distributed among the various construction sites. The Data are filled by the contractors. The duration of this procedure may takes place two to three days. The Duration may vary to every construction site.

#### **EVALUATE SUBCONTRACTOR PERFORMANCE:**

The next step is to evaluate performance of subcontractor by the details collected from the contractor. The proper evaluation of subcontractor makes us to get efficient output.

#### **SUMMARIZE EVALUATED SCORES:**

The next step is to provide ratings to their performance. The rating method helps us to select efficient subcontractor. In our project Balanced Score Card method was adopted.

#### **COMPARISONS:**

The performance of the subcontractors can be compared in many ways:

1. Same work of Different Subcontractors under different contractors
2. Efficiency of Different subcontractors in different places
3. Government construction and Private construction
4. Efficiency of Different subcontractors under same contractor
5. Comparisons among all subcontractors.

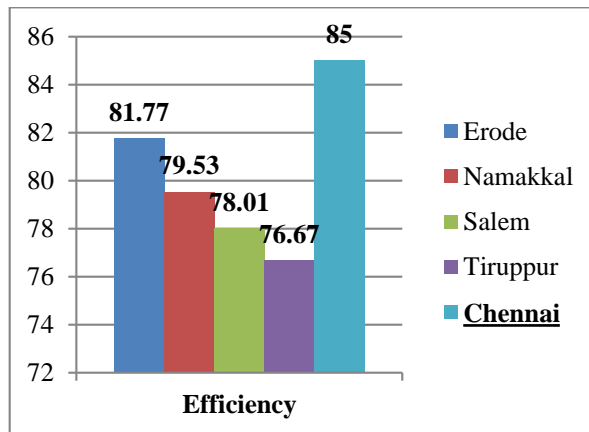
#### **JUDGE ACCORDING TO EXPERTISE:**

From the evaluation scores and comparisons it is easy to select an efficient subcontractor.

#### **I. EVALUATION RESULTS:**

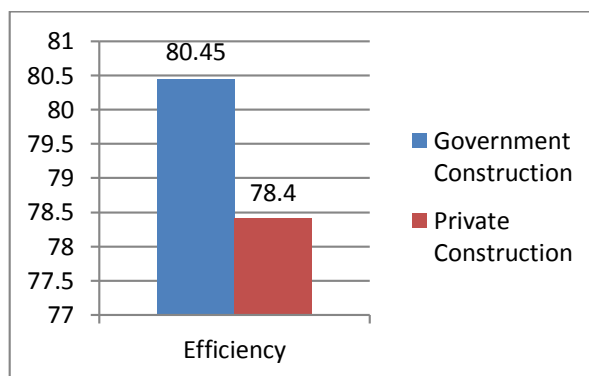
The final step is to compile and file the results that are obtained from the project. From the evaluation results we can give the forthcoming project to the subcontractor who has highest rating by this method we can save cost, wastage of time and more over project can be completed successfully.

**1. EFFICIENCY OF DIFFERENT SUBCONTRACTORS IN DIFFERENT PLACES**



Fig–Efficiency of different subcontractors in different places

**2. GOVERNMENT & PRIVATE CONSTRUCTION**



Fig–Government & Private construction

**3. EFFICIENCY OF DIFFERENT SUBCONTRACTORS UNDER SAME CONTRACTOR**

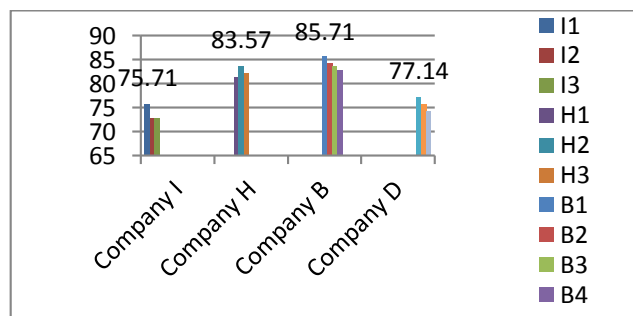
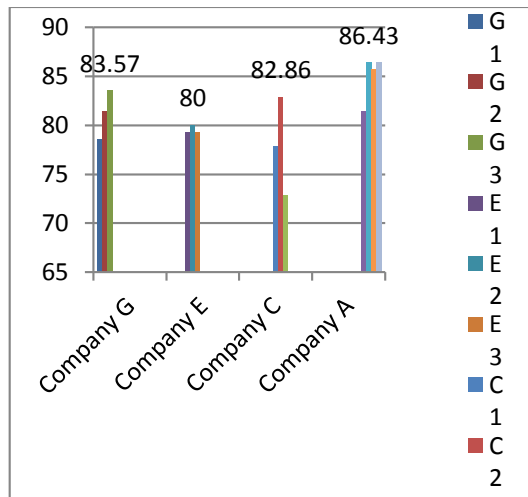
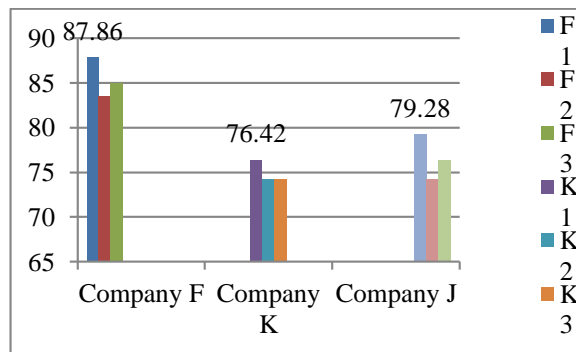


Fig 14–Efficiency of different subcontractors under same contractor

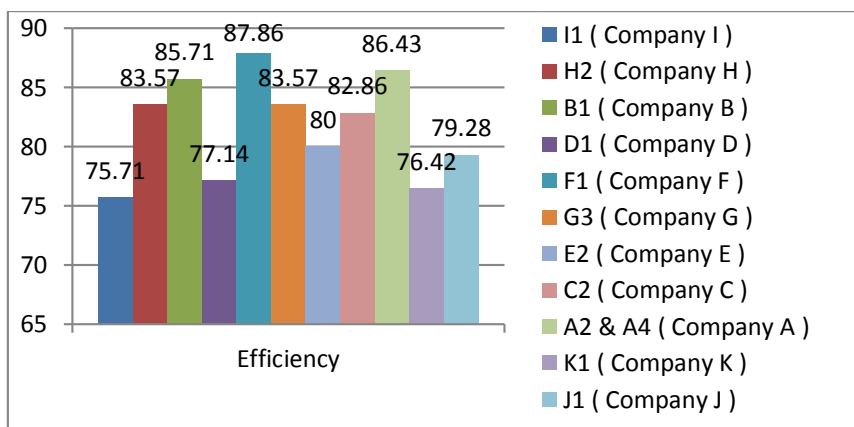


Fig–Efficiency of different subcontractors under same contractor



Fig–Efficiency of different subcontractors under same contractor

**5. COMPARISONS AMONG ALL SUBCONTRACTORS**



Fig–Comparisons among all subcontractors

**RESULTS**

**1. Same work with Different Subcontractor in different contractors**

- a. Form Work- E3- 79.29 (Company E)
- b. Masonry Work- G2 - 81.43 (Company G)
- c. Bartender Work - G3- 83.57 (Company G)
- d. Plastering Work - A4 - 86.43 (Company A)

- e. Centering Carpenter Work- A1- 81.43 (Company A)
- f. Concrete Work - A2 - 86.43 (Company A)
- g. Brick Work - A3 - 85.71 (Company A)
- h. Pipe line Work - F1 - 87.86 (Company F)
- i. Overhead Tank - B2 - 84.29 (Company B)

## 2. Different Subcontractors efficiency with different places

Best Zone - Chennai-85

## 3. Government construction and Private construction

Best Construction- Government Construction – 80.45

## 4. Different Subcontractors efficiency in the same contractor

- a.I1 - 75.71 (Company I)
- b. H2 - 83.57 (Company H)
- c. B1 - 85.71 (Company B)
- d. D1 - 77.14 (Company D)
- e.F1 - 87.86 (Company F)
- f. G3 - 83.57 (Company G)
- g. E2 - 80 (Company E)
- h. C2 - 82.86 (Company C)
- j. A2 & A4 - 86.43 (Company A)
- k. K1 - 76.42 (Company K)
- l. J1 - 79.28 (Company J)

## 5. Comparisons with over all Subcontractors.

Best Subcontractor - F1- 87.86 (Company F)

## RECOMMENDATIONS

Following recommendations on Subcontractor performance evaluation and rating were evolved from the study:

1. Implementing subcontractor performance evaluation and rating as a routine procedure only will not give any benefits to the prime contractor. A database of subcontractors along with their ratings should be made available to the concerned persons in the organizations, which will enable them to make decisions effectively.

2. Evaluation of subcontractor performance is an activity to be executed by a competent person in the organization or project. Evaluation should be unbiased and should always reflect the truth. Any discrepancy will result in disastrous consequences.

3. Standardization of procedures of subcontractor performance evaluation and rating is highly important as a difference in procedures will ultimately result in incorrect scores and false ratings.

4. As the construction companies are operating across many regions, implementation and distribution of subcontractor performance rating data will be a herculean task, if it is to be done manually. Use of IT applications such as ERP software, internet portals etc. may be adopted for easier and effective implementation.

## LIMITATIONS

Even though the study has aimed at conducting an extensive research on subcontractor performance evaluation and rating, the study has following limitations:

1. The study has developed an evaluation questionnaire assuming equal weightage to all the parameters of evaluation. If the prime contractor is having a set or priorities in performance parameters, according to these priorities, weightages are to be assigned to the performance parameters.

2. A generalized approach is adopted for the development of evaluation methodology and questionnaire. This approach need to evolve according to the organization size, extent of subcontracting etc.

## CONCLUSION

- ☉ Here by we are concluding that an Efficient Subcontractors can be Selected by comparing the performance with respect to various zones, various contractors, various subcontractors, between government & private contractors, various works.

- ⊙ The performance of subcontractor varies in accordance to Maintenance, Supervision, Quality of Material and their Capability.
- ⊙ Subcontractor performance evaluation and rating is a tool which can be effectively used for selecting the subcontractor in smart way.

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