

Study on Impact of Materials and Equipment for Hire Charge

R.Pandi, R.Susmitha, V.Gowthama Burusoth, B.Karthika

Final Year, Department of Civil Engineering, SNS College of Engineering

Abstract

Construction industry is the most complex and dynamic one. Here money plays a vital role; profit and loss are determined by their cost investments. The main aim of this paper is to give an idea to increase the profit of the construction industries. It is an overview of a survey work on how to increase the profit for construction firms and contractors by having their machines in their own. We took a survey in certain places like Coimbatore, Madurai and Theni to determine whether the construction firms have successfully benefitted through their projects. Questionnaires were prepared and given to the major and medium construction firms to identify how those companies have successfully benefitted through their projects.

Systematic random sampling is adopted for data collection. From the collected data from various sites they use construction machineries and shuttering works by rent. This will create a minor loss for contractors and construction firms. The objective is to pave an optimum way of gaining more profit than they gain at present.

Keywords: *Construction Industry, Contractors, Data Collection, Material.*

INTRODUCTION

Construction industry plays a pivotal role in the economic growth of a nation and occupies a central position in the development plans. The construction industry suffers from low margins and difficulties in making it fully profitable. The reason is that the material and machinery are not owned by the contractors during a project. The modern construction industry is characterized by multi party projects with extensive chains of sub-contracting, which means that the person who is paying for the work is rarely in direct contact with the person undertaking the work. In such situations, there are opportunities for making the project unprofitable. In India, the local construction industry is still facing several cost wise problems such as taking the materials and machineries for rent, the materials like shuttering sheet, props and span and the machineries like concrete mixer and lift. Even if the local construction companies own the machineries, there is a pressing need to maintain them which is tedious. And there is an infringing hazard that if the machinery is not maintained properly, it may be brought to naught, eventually impacting the profit greatly. The main aim of this paper is to investigate the impact of taking material and machinery for rent and to view on the six measures on

project performance, namely: cost, schedule, quality, safety, Satisfaction of owner and contractor.

LITERATURE REVIEW

Dr Emad elbeltagi⁽¹⁾ said that contractors may purchase equipment when factors pertaining to ownership and economics make this alternative more favorable than renting. When the construction operations of contractors need the steady use of certain equipment, owning such equipment may be financially better. There can be also a marketing advantage to the contractors who own their equipment which shows that they are more financially stable than others who do not own their equipment. Some owners ask contractors who bid on their projects to list on bid the company owned equipment they propose to use in this work. This information is used in the owner's assessment of the bidder. Also the advantage of purchasing equipment is that it allows contractors to have absolute control on the use and disposition of equipment. He / She can use the equipment in any manner fits the required job.

Yewen⁽²⁾ told that the unnecessary cost arising from non value added activities during the construction process is placed under control. And the value flow of the product is the very place where values and cost occur, furthermore, it is a place to identify and eliminate waste and control costs. The construction company put the value flow management in the first place because it meets the need of the lean enterprises in cost control and it is the

deciding factor of the enterprises competitiveness and success.

Tae Hyung Kim⁽³⁾ says information that contractors are selected on the basis of price experience in undertaking particular type of project and their track record in producing high quality work within budget and on time. A problem may arise where there is a high level of development activity being undertaken in a particular region and the better contractors are not available to bid for the work at that time. Delays in project implementation and increases in cost can arise through the use of ineffective or inappropriate labor or errors in calculating how productive the labor will be. This can happen especially when sub contractors are used whose quality is not controlled in the main project contract.

METHODOLOGY

This paper views about increasing the profit of the contractors than they gained at present.

Data collection

a) Questionnaire based:

Questionnaires play a vital role in survey research. A questionnaire survey can be conducted among several professional constructional domains and based on their experience. Several surveys were taken in certain places like Theni, Madurai and Coimbatore.

b) Sampling

Systematic random sampling will be adopted for data collection. List of construction firm is collected from several district firm centers like Coimbatore, Theni and Madurai. The construction firms were sorted based on the construction materials they use for hire charge.

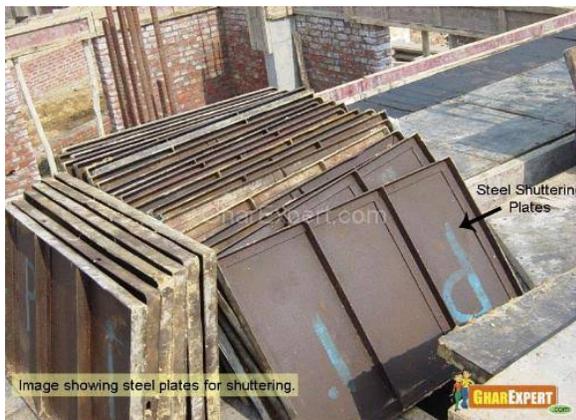
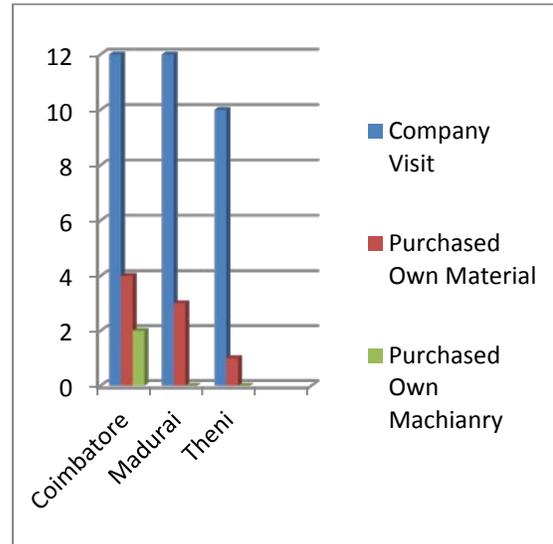


Fig.1 Shuttering Sheet

S No	Name of the City	No of company Visit	No of company Purched own Material	No of Company Purched own Machinery
1	Coimbatore	12	4	2
2	Madurai	12	3	Nil
3	Theni	10	1	Nil

Tab 1:Survey list

GRAPHICAL REPRESENTATION OF MACHINARIES IN SEVERAL PLACES



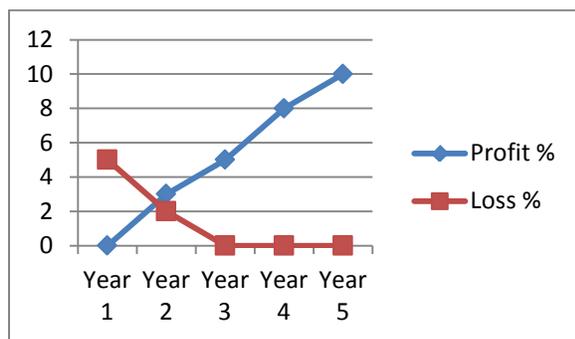
RESULT & DISCUSSION

Modern construction is characterized by the increased utilization of equipment and materials to accomplish numerous construction activities. Several systematic random surveys were taken in developed and developing cities like Theni, Madurai and Coimbatore. From those data’s we came to know that some of the construction firms in developed areas were adopted by their own construction materials and equipment. But in developing area they were using materials and equipment for rent alone. Because they can’t get as much as huge projects in those developing areas.

The initial cost is the total cost required to purchase a piece of materials. This initial cost is the basis for determining the other cost related to ownership as well as

operating costs. In order to calculate the costs of finance of an equipment and materials, both the purchase price and the salvage value should be converted into uniform annual values. In this situation, the purchase price is considered as a present value invested for some years as a series of uniform payment and the salvage value is considered as a future sum of money to be discounted for those years as a series of uniform payments.

ANALYSIS BASED ON PROFIT AND LOSS



CONCLUSIONS

From the collected data's we came to a conclusion that in developed areas like Coimbatore and Madurai the construction firms have purchased their materials like scaffoldings and shuttering sheets by their own. Through this they can gain more profit than they earned at present. If they have maintained this material properly, they will be useful to them for a long period. But in developing areas like Theni, contractors does not have own construction materials and equipments. Hence there will be a financial loss. There can be also a marketing disadvantage to the contractors who rent their materials which shows that they are financially unstable than others.

As we came to know that in several developmental areas most of the construction firms were using construction materials and equipment by rent for very huge projects. This will create some minor losses to their firms. In general, construction firms purchase their materials from their own than taking for rent. But in our point of view construction firms can purchase materials by their own and equipments for hire. Because materials can be used throughout the year, but machineries are not like that. Machines have high operating costs, includes maintenance and repairs, fuel and oil lubricants.

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