

Equipment Management in Construction Phase I Report

RINTU THOMAS

MASTER OF ENGINEERING IN
CONSTRUCTION ENGINEERING MANAGEMENT

ABSTRACT

Construction equipment is a major resource in the building process for a construction project. When equipment is owned by a contractor, it forms a sizable portion of his assets requiring proper management practices.

Good project management in construction must vigorously pursue the efficient utilization of labor, material and equipment. The use of new equipment and innovative methods has made possible wholesale changes in construction technologies in recent decades.

The selection of the appropriate type and size of construction equipment often affects the required amount of time and effort and thus the job-site productivity of a project. It is therefore important for site managers and construction planners to be familiar with the characteristics of the major types of equipment most commonly used in construction. The selection of equipment by a company maybe governed by its policy on 'owning' or 'renting'. While emphasis on 'owning' may result in purchase of equipment keeping in mind the future requirement of projects, the emphasis on 'renting' may lead to putting too much focus on short-term benefits.

This thesis is to study the equipment management practices in Construction Industry and to present the most popular practices of the contractors and to compare the equipment management policies with a Case study of a construction industry. The needed data were collected via a structured questionnaire. The contractors were divided into three grades based on their annual work volumes. The collected data were analysed using the SPSS software. The elements of the management policies were cross-tabulated against the grades of contractors for finding possible significant differences in contractors' practices. Hypotheses on some expected results were tested. Finally, the findings of this study were compared with findings of questionnaire conducted for finding significant commonalities and differences in equipment management practices.

Although only one-third of the contractors have written equipment management policies updated periodically, all contractors practice almost similar equipment management procedures for selecting, acquiring, economic evaluation, operation and maintenance, record keeping, standardization, and safety.

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