WORK NORM ANALYSIS FOR MEDIUM SCALE BUILDING PROJECTS: A CASE STUDY

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U.K.D.L.T. UDAWATTA

Department of Civil Engineering

University of Moratuwa, Sri Lanka

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Abstract

It is accepted that construction industry plays a vital role in an economy of a given country. In Sri Lanka, the construction sector was continuously growing at high rate in the pervious years and it has significantly contributed to the Sri Lankan economy. Material and labour components are the main inputs to the construction industry. Planning, controlling, and monitoring of material and labour components are the key factors to successfulness of projects. The standard norms were developed many years ago in order to assist to the above functions. With technology transferring to the industry, work norms for construction industry are to be reviewed; however, it was not touched during the last two decades. In Sri Lankan context, standard work norms are available and it is called as Building Schedule of Rates (BSR). In fact it is very useful in estimating different parameters.

The main objective of this research is to develop the work norms for building construction activities. Further, it investigates the experimental and BSR standard norms on few construction events. This thesis also describes the productivity of the labour, material consumption in construction work. Moreover, daily work completed, material consumption and labour involvements were closely examined in two different sites selected and all the data were recorded on daily basis with respect to the construction events. The experimental data were analyzed by simple statistical techniques and compared with the standard norms available up to date.

The research findings revealed that actual material consumption IS relatively high comparing to the standard BSR values which were previously developed. As per the findings of the research, cement and sand were excessively consumed in all construction events. In this research, daily labour outputs were also examined and it was found that productivity of the labour was higher than the BSR standard values. Furthermore, it is recommended to review the previous standards in order to adapt the current practices.

DECLARATION

The work submitted in this dissertation is the result of my own investigation, except where otherwise stated.

It has not already been accepted for any degree, and is also not being concurrently submitted for any other degree.

U.K.D.L.T. Udawatta

I endorse the declaration by the candidate.

UOM Verified Signature

Dr. L. L. Ekanayaka
Supervisor
Department of Civil Engineering
University of Moratuwa,
Sri Lanka

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List of Abbreviations and Acronyms

BSR	Building Schedule of Rate
DI	Direct Implementation
ICTAD	Institute for Construction Training And Development
SLS	Sri Lanka Standard
SMM	Standard Method of Measurement
UNOPS	United Nations Office for Project Services