REVIEW OF PRODUCTIVITY NORMS IN BUILDING CONSTRUCTION INDUSTRY

MASTER OF SCIENCE IN CONSTRUCTION PROJECT MANAGEMENT

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"This dissertation was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Master of Science in Construction Project Management"

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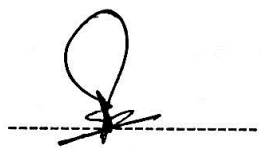
DECLARATION

I hereby certify that this dissertation does not incorporate any materials without acknowledgement, and materials previously submitted for a degree or diploma in any university to the best of my knowledge , and further I believe it does not contain any materials previously published written or orally communicated by another person except where due reference is made in the text.



06/05/2015

D. K. Walpita **Date**

(MSc / CPM / 2011 / 118990F)

This is to certify that this thesis submitted by D. K. Walpita is a record of the candidate's own work carried by him under my supervision. The matters embodies in thesis is original and has not been submitted for the award of any degree.

for

Prof. A. D. A. J. Perera (Research Supervisor) 06/05/2015

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ABSTRACT

The construction industry plays vital role in an economy of a given country. In Sri Lanka the construction sector was continuously growing at higher rate and construction industry has a big influence for country' GDP. Materials and labour component are the main inputs to the construction industry. Planning, controlling and monitoring of materials and labour component are the key factors to successfulness of the project. The multi-disciplinary nature of the project development process imposes the need for clear understanding about norms and factors affecting productivity. The stranded labour productivity norms developed many years ago in order to assist labour component. With the technology transferring to the industry, work norms for construction industry are to be review. The main objectives of this research are to revive and develop work norm for building construction activities.

This study investigate and compare the productivity of companies on engineering construction sites in the Sri Lanka to that achieved by companies on comparable sites abroad and it investigate the BSR standard norms on few construction events. This thesis also described the productivity of labour and the mode of payment. The amount of work completed against time were closely examined in different activities in different projects and all data such as mode of payment, tools & machinery availability, work supervision, were recorded with respect to the construction event. The experimental data were analyzed by simple statistical techniques and compared with the standard norms available.

The research findings revealed that the modes of payment are the main striking method to motivate tradesmen. Organization of the work, tools and equipments specifications maintenance, monitoring and supervisions are the other main factors that affect the productivity of labour based projects. It was found that the actual labour output and productivity of labour was higher than the BSR standard values. Furthermore it is recommended to review the total labour cost inorder to assign the work method for better productivity.

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