LABOURS' PRODUCTIVITY IN THE CONSTRUCTION SITE

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This project report is dedicated to my parents without their love and support it could not have been produced.

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ABSTRACT

Productivity of workers is important to enhance the completion of the project within the required time and quality. Majority of the project elements and activities are based on labour performance. Construction activities are recognized as labour-intensive as it rely more on human efforts. Contractors have duties to handle the work in it best way for increasing the quality and decreasing time and also cost. Frequently, at construction sites it is observed that contractors do not pay attention to the productivity of workers and its effect on the overall productivity. Usually they do not measure labour productivity in the construction projects and also they cannot compare productivity rates in the construction sites. The aim of this study is to assess the factors that influence the workers' productivity and the relationship between workers' productivity and job satisfaction. The objectives of the study are to assess the level of understanding of contractors regarding the workers' productivity in construction industry, to assess the level of implementation of contractors to improve workers' productivity in construction site, to evaluate the main factors that influence the workers' productivity in construction industry and to identify the relationship between job satisfaction and workers' productivity. The data is collected through questionnaires and interviews. A total of 85 questionnaires were distributed to the respondents and 53 questionnaires were received duly answered. The data is analysed using Average Index and SPSS. From the study, the level of understanding of contractors regarding the workers' productivity in construction industry is "Understand". The contractors understand the impact of productivity on cost, time and quality. The steps taken by the contractors to improve workers' productivity in construction site are monitoring labour activities, improving working conditions and training experienced labour. The main factors that influence the workers' productivity in construction industry are lack of required material, lack of required tools, poor access, weather conditions, construction accidents, control delays and quality of required work. There is a significant correlation between job satisfaction and also productivity rate of the construction workers. In other word by increasing the job satisfaction their productivity would be enhanced and vice versa.

ABSTRAK

Produktiviti pekerja adalah penting dalam menyiapkan sesuatu projek itu dalam masa dan kualiti yang diperlukan. Majoriti unsur-unsur dan aktiviti projek adalah berdasarkan kepada prestasi pekerja. Aktiviti pembinaan juga dikenali sebagai buruh intensif kerana ia lebih bergantung kepada usaha manusia . Kontraktor mempunyai tanggungjawab dalam mengendalikan kerja-kerja yang di dalamnya dengan cara yang terbaik untuk meningkatkan kualiti dan juga mengurangkan masa dan juga kos. Lazimnya, terdapat kes bahawa kontraktor tidak memberi perhatian kepada produktiviti pekerja dan memberi impak terhadap keseluruhan produktiviti . Kebiasaannya, mereka tidak menilai produktiviti buruh dalam projek-projek pembinaan dan juga tidak membandingkan kadar produktiviti di tapak pembinaan. Tujuan kajian ini adalah untuk menilai faktor-faktor yang mempengaruhi produktiviti dan hubungan di antara produktiviti dan kepuasan kerja di antara pekerja. Objektif kajian ini adalah untuk menilai tahap pemahaman kontraktor mengenai produktiviti pekerja dalam industri pembinaan, untuk menilai tahap perlaksanaan kontraktor untuk meningkatkan produktiviti pekerja dalam tapak pembinaan , untuk menilai faktor-faktor utama yang mempengaruhi produktiviti pekerja dalam industri pembinaan dan untuk mengenal pasti hubungan di antara kepuasan kerja dan produktiviti pekerja. Data dikumpul melalui soal selidik dan temu bual. Sebanyak 85 borang soal selidik telah diedarkan kepada responden dan 53 soal selidik telah diterima . Selepas itu, data dianalisis dengan menggunakan Indeks Purata dan SPSS. Dari kajian ini, tahap kefahaman kontraktor mengenai produktiviti pekerja dalam industri pembinaan adalah " Memahami ". Kontraktor memahami kesan produktiviti pada kos, masa dan kualiti. Langkah-langkah yang diambil oleh kontraktor untuk meningkatkan produktiviti pekerja di tapak pembinaan adalah memantau aktiviti buruh , meningkatkan faktor persekitaran kawasan kerja dan memberi latihan kepada pekerja berpengalaman. Faktor-faktor utama yang mempengaruhi produktiviti pekerja dalam industri pembinaan adalah kekurangan bahan yang diperlukan , kekurangan alat yang diperlukan , kekurangan akses , keadaan cuaca, kemalangan di tapak pembinaan , tidak melakukan kawalan dan kualiti kerja yang diperlukan . Terdapat hubungan yang penting di antara kepuasan kerja dan juga kadar produktiviti pekerja-pekerja di sektor pembinaan . Dengan kata lain, dengan meningkatkan kepuasan kerja akan menjana produktiviti mereka dan sebaliknya.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Productivity is one of the most significant factors influencing the overall performance of any organizations (Kim, G, et al 2013). In construction projects, which are mostly labour-based and involve basic hand tools and equipment, labour costs consist 30 to 50% of overall project costs (Enshassi et al 2007). This means that labour productivity is one of the key management factors to complete a project successfully.

Because the construction is a labour-intensive industry, the significance of this effect not only affirms the concern over its labour productivity, but it can also be discussed that labour power is the only productive resource, therefore construction productivity is chiefly depended on human attempt and performance (Jarkas, A. M., & Bitar, C. G. 2011).

Believe it or not the construction workers have a key role in advancing the construction process. They are people who have existed from the first step of implementation until the project closing. On the other hand they influence directly to the main indicators of each project which are time, cost and quality. Hence the construction mangers ought to be required to consider and investigate more in order to enhancing the construction workers productivity.

One of the most effective factors to the productivity is motivation. Therefore understanding the relationship between motivation and level of productivity is important to develop best and innovative practices to improve construction productivity. If construction managers discover how to enrich the workers' motivation and how to behave with the construction workers or labours in order to motivate them gradually, ultimately they will gain the most productive efficiency of manpower.

Construction projects present the construction manager with many challenges. Among them is the coordination of material, equipment, finances, and labour that must come together to produce the desired output. The labour, better known as human beings, is the most essential resource available to the construction manager and the most complex resource with which to deal. Therefore, the construction manager needs to understand the construction worker. The construction manager also needs to make sure that supervisors at all levels are sufficiently skilled in handling subordinates, that they can satisfy the craftsman's need for sense of achievement, the craftsman's wish to be wanted, and his or her need to account for something. It is through an understanding of the concepts of motivation that the construction manager can accomplish these objectives. The focus of this study centres on how to motivate the construction worker toward increased productivity. This most vital resource, the construction worker, warrants an in-depth study of the reasons for why he does what he does, how management decisions influence his actions, the environmental factors that affect his behaviour, and what management can and must do to motivate the worker toward increased productivity.

This topic should be of great concern to the prudent construction manager. Management employee relations have changed considerably over the past hundred years, especially following the legislation of the equal rights act, the equal employment opportunity act and other current trends. Today, the construction worker is a more intelligent individual with a greater degree of awareness. The construction manager cannot rely on an authoritarian approach to management. The motivation techniques employed by the construction manager are the means by which today's construction worker can be steered toward productive performance.

1.2 Background of the Study

Improving productivity is a major concern for any profit-oriented organisation, as representing the effective and efficient conversion of resources into marketable products and determining business profitability (Wilcox et al, 2000). Consequently, considerable effort has been directed to understanding the productivity concept, with the different approaches taken by researchers resulting in a wide variety of definitions of productivity (Lema, 1995; Pilcher, 1976; Oglesby, 1989). Productivity has been generally defined as the ratio of outputs to inputs. Therefore, while numerous construction labour productivity research studies have been undertaken, only a few have addressed the productivity issue in developing countries.

Three basic sources of productivity are identified by O'Toole, J (1981) author of Making America Work:

- Labour (the mental and physical efforts of workers),
- Management (the activities of planning, coordinating, motivating, and controlling), and
- Technology (the contribution of machines transferring energy into useful work).

The analysis of any construction project will clearly show that the construction manager is seeking to manage resources effectively and efficiently in order to complete the project. The success with which the construction manager accomplishes that goal is highly dependent upon certain skills that he exhibits. James O'toole 1981 has spelled out those activities that embrace management. It is important to note that tie selection of an individual for a management position based on construction competence does not guarantee that the individual will be the most effective. The manager often enters the management position with some degree of

planning and coordinating skills. Yet, many managers often lack an understanding or appreciation of human behaviour and motivation. Those managers that seek to understand human behaviour and apply the principles of motivation theory to motivating the construction worker can and nearly always benefit through improved productivity.

1.3 Problem Statement

In several developing countries all over the world construction project workers have pivotal roles for enhancing the productivity of the work. In this situation usually contractors have duties to handle the work in it best way for increasing the quality and decreasing time and also cost. It goes without saying that the issue of labour productivity has special importance in this industry.

In different construction sites usually contractors do not pay attention to the productivity and its effect on the productivity to enhance it. In developing countries usually different people in charge are not focusing on the productivity and its efficient impacts on the site. Usually they are not measuring labour productivity in the construction projects and also they cannot compare productivity rates in the construction sites. On the other hand it is very important to know different methods for measuring productivity in the construction sites. Furthermore by considering the productivity the construction activities usually we can reduce costs of the project as well as its duration and we can enhance quality significantly. Due to the importance of the labour productivity in the construction sites different studies about this issue has been found on the internet and other online data basses which were conducted usually in western counties. Regarding the concept of labour productivity not many studies could be found in the context of eastern and especially developing countries. According to the needs of research in this area of study, researcher attempt to conduct a study about labour productivity in the construction sites of a developing country. Hopefully results of the study seem to be efficient for different people in

charge in this field to use the data of the current study for improving the construction labour efficiency.

Basically there are diverse factors which influence the productivity of labours, but what are they exactly? And which one of these factors is most effective to the labours productivity? Which factors have the most influence to the labours productivity in expert's point of view? The main indicators of each project are time, cost and quality which every organizations and firms are decided to reach the ideal of them.

1.4 Aim and Objectives of the Study

Generally there are various factors which affect labours' productivity but in this research the focus is on the most affective and impressive factors in this area. On the other hand the key role of job satisfaction is evaluated to find out its relationship to the labours' productivity. During the process of current research, researcher attempted to reduce time and cost and quality during the labour productivity of the construction sites in the developing countries.

Objectives of this study are as following:

1- To assess the level of understanding of contractors regarding the workers' productivity in construction industry

2- To assess the level of implementation of contractors to improve workers' productivity in construction site

3- To evaluate the main factors that influence the workers' productivity in construction industry

4- To identify the relationship between job satisfaction and workers' productivity

1.5 Scope of the study

This study focuses on improving labours' productivity in construction phases. The interviews and questionnaires are collected from a developing country. And also the interviews are resulted from meetings with the experts and professionals in construction industry.

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