

A Review of Impact on Labour Management in Construction Industry

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Abstract – Improving production efficiency is one the biggest challenge in the construction industry. The productivity of any project relies mainly on labour force as labour play an integral part in the success of the project. Proper management of labours increases the productivity along with this the project is completed on time with optimum cost. This study mainly focuses on the various factors or parameters related to labours that have a great impact on the project productivity.

Key Words: Labour productivity, Labour management.

1. INTRODUCTION

The construction segment plays a key part in the development of nation by providing infrastructure and other various facilities. At present the development segment is proceeding with fast growth, these developments influence the expanded needs of the components connected with the development in administration sector, a standout amongst which may be labor management. Workforce is a significant component that influences the coherence and smooth implementation of construction undertakings. Labour management in construction activity includes improving labour productivity and reducing time and cost overrun of projects, solving problems etc

Construction industry is the major and demanding industry in the world. Human asset plays a vital role construction field, with the efficient and optimal use of human resource increase in productivity can be achieved.

Labour productivity is one of the important variable which influences progress of any construction project. Enhancing productivity is the foremost concern for any profit oriented association. Labour productivity can be defined as the ratio of input to output. Labour is an integral part of construction organization and proper management of labours can yield higher productivity. Success of any construction project depends on the work carried out by the labours. Labour productivity directly influences construction productivity and hence it is important to know the factors affecting labour productivity.

Labour is an essential aspect of construction industry hence sound labour management cannot be disregarded. Labour management is the process of channeling mankind's vitality and abilities under accomplishing business targets. Labour management is thus concerned with both the efficiency and the effectiveness of

the labour i.e. how fast the job is done and also how useful the task is.

1.1 LITERATURE REVIEW

Labour productivity and its management play a key role in construction project. The success of any construction projects depends on the factors influencing labour productivity and its overall impact on the project. Thus a literature review was conducted to understand the aspects of labour productivity management.

Jisha Chakkappan et.al.,^[2] conducted an accurate estimation of work benefit for chosen locales. A questionnaire survey was conducted and the data was analyzed by utilizing Statistical Software Package SPSS 19.0 for deciding work profit. Based on the analyzed results Multiple Linear Regression Model was prepared to anticipate productivity of the work.

Nay Chi Soe et.al.,^[8] depicts the current labour management practices in construction projects in Myanmar. The paper consists of 4 classes of labour management practices i.e. labour management practices affect on project, manpower problems by shortcoming of labour management practices, factors on increasing labour productivity by good management practices and factors on reducing labour productivity by poor labour management practices. Information to this study was acquired through an organized questionnaire administered to respondents. The responses were then analyzed by utilizing Relative Importance Index (RII) to rank the factors. H test or Kruskal Wallis test was used to check the opinions of all respondents.

Odyseus Manoliadis^[11] implemented benchmarking standards in some projects in Greece, by the utilization of indices. Indices for example, such as the disruption index, performance ratio, project management index and project waste index were calculated for the undertaken projects. By the implementation of the above mentioned indices on the projects it was concluded that benchmarks of labour productivity acts as a critical delineator between good and poorly performing activities.

Prachi R. Ghate et.al.,^[7] said that in construction there are three basic planning elements: time, cost and quality. These concepts are in a close relationship with each other. Labour productivity is also a key concept of construction planning efforts and has a direct interrelationship with the triple constraint mentioned. Lower labour performance is strongly related to the presence of change of work, disruption and

rework. The most significant types of disruption are lack of materials and information and having to perform the work out of sequence.

2. FACTORS INFLUENCING PRODUCTIVITY

2.1 Documentation

Documentation is the first step that comes under construction process. When there is impediment in the documentation the further process's also gets delayed, due to which there will be delay in the start of the project which ultimately increases the time and cost of the project. The factors affecting labour productivity under this category are:

- Delay for approval of permission drawing
- Changes in permission drawing
- Site inspection

2.2 Technical

Technical parameters play a key role in the success of construction projects. While hiring an individual in an organization it should be seen that they are well qualified and have enough of construction knowledge to tackle with the problems that arises during the construction phase. Construction methods adopted should be such that all the labours are familiar to the method for the smooth completion of the project in the given time period.

The influencing criteria are:

- Drawing errors
- Lack of experience
- Lack of construction knowledge
- Construction methods adopted

2.3 Management

Project management is the basic groundwork on which each construction project is established. A project manager will have to acquire different types of skills and qualifications to navigate through the project and establish autilitarian relationship with various groups. Changes in construction projects are a continuous requirement and in this sense project management is important for the stability of the whole process. The important factors affecting productivity are:

- Improper planning
- Improper resource allocation
- Improper work schedule

2.4 Resources

Resources directly and indirectly affect the project by affecting time and cost of the overall projects. Resources need to be well planned, organized and managed for

completion of the project in the give time frame and budgeted cost. Disorganized resource management leads to delay in the completion as well as success of any project. Factors influencing under this category are:

- Material quality
- Increase in the price of materials
- Tools and equipment shortages

2.5 Safety

Construction work is a dangerous land based vocation. It includes works such as construction of edifices, bridges, dams, roads, repair and maintenance of infrastructures etc. construction incorporates numerous unsafe errands and situations like excavation, working with height, noise, dust, machineries etc. The most common deaths are caused due to falling from height, being struck with between two objects, working without safety equipments, being hit by an object. Labour productivity is influenced by the following factors:

- Lack of safety trainings
- Dangerous working conditions
- Safety measures available at site

2.6 Wages

A wage can be defined as a fiscal payment paid towards an employee by an employer in return for the work completed. Pay scales may be different for each individual depending on the work assigned to them, on their qualification, type of work carried out by the labours etc. when lower wages are paid labours show lack of interest in continuing the work given to them hence, extra bonus and compensation has to be given for their performance which in turn motivates the labours to work hard.

The factors affecting labour productivity are:

- Lower wages
- Difference in pay scales
- Payment delays

2.7 Others

Construction industry also get affected due to various parameters such as age of labour, mental condition of labour, physical health of labours, basic facilities provided to labours. Therefore proper planning is required to carry out work effectively utilizing the potency of the labours. Some of the influencing factors are:

- Age
- Absenteeism
- Poor health of the workers

3. CONCLUSIONS

From the study it can be concluded that to accomplish the expected output from any construction project, it is vital to have a good controlling hand on the productivity factors that have a great impact on the completion of the project within the budgeted cost and given time frame. In order to increase the productivity it is necessary to make use of some strategies and techniques to overcome the factors influencing labour productivity and management.

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