A Study On Impact Of Stress On The Performance Of Construction Labours

M. Premkumar#1, R. Rajkumar#2

#1 PG Student (M.E Construction Engineering and Management),
#2 Assistant Professor, Department of Civil Engineering
Kongu Engineering College, Perundurai
Tamilnadu, India

Abstract — The construction industry is considered one of the most challenging, labor-intensive and dangerous working environments. From the extensive literature study it is much clearer that construction workers who contribute directly for the successful completion of the project, but they are influenced by stress. This causes the performance of the construction labours. To yield a desired performance, it is necessary to ensure that the construction workers should work at an optimum level of stress effectively. Managing job stress is a challenging task in any companies. Failure or unable to manage and control job stress may lead to many problems in the workplace. Findings show that the principal sources of stress were high volume of work, uncomfortable site conditions, lack of feedback, and variations in the scope of work, Interpersonal conflicts, Poor remuneration, etc. This study focuses the behavior of construction labours towards the impact of stress and its influence on their performance. To measure the stress and performance, questionnaire is designed. This study helps to increase the productivity by increasing the performance of construction labours.

Keywords — Performance, Stress, Conflicts, Remuneration.

I. INTRODUCTION

The construction industry is important in any nation’s economy as it contributes to the process of development. It equally has many features that set it apart from other industries and which accentuate the need for professional engagement. The team for each project is assembled from a disparate collection of professionals, subcontractors, craftsmen, artisans, labourers and suppliers within and outside the industry Bamisile (2004). Also, there is sufficient evidence to show that a growing number of people are involved in the activities of the industry.

Construction relates to the erection or assembly of large structures. It is in common usage, most frequently applied to such major works as buildings, ships, aircrafts and public works such as roads, dams and bridges. Construction process requires a lot of physical activities that are stressful to the participants in the industry. These physical activities are usually carried out by the artisans who occupy the lower part in the pyramid of personnel that contribute to the erection of the aforementioned structures.

Job stress can be considered as an unpleasant emotional situation that employee experience when the requirement of work-related or not related cannot be counter balance with the ability to resolve them (Halkos and Bousinakis, 2010). Managing job stress is crucial in order to increase job satisfaction and job performanceJob stress can act as a motivator which may create creativity and satisfaction among employees. Nevertheless, if the employee is being carried away with his or her job stress, it can result to aggressiveness and low job satisfaction.

1.1 Definition of occupational stress

It is difficult to find a clear-cut definition of the term “job stress” in the literature. Sun defined job stress as “a physical and emotional phenomenon experienced in various working situations, when workers are at risk, when they have a conflict with their boss or colleagues, when they feel emotional affliction arising out of a discrepancy between their aptitude and their job, when their ability is not recognized or they feel they lack ability, or when they are in charge of an important or extremely difficult job.” In short, one can experience job stress when one is not given a working environment in which one can control the job, or with which one’s motivation or capability is compatible.

1.2 Review of stress and construction industry

Health and Safety Executive (2001) defined stress as adverse reaction people have to excessive pressure or other types of demands placed on them. They also said, occupational stress or workplace stress is the stress experienced as a direct result of a person’s occupation. Lazarus and Folkman (1984) defined stress as that which a person appraises as harmful, threatening or challenging and also noted stress as a state produced by a change in the environment that is perceived as challenging threatening or damaging to the person’s dynamic balance or equilibrium. It leads to a real or perceived imbalance in the person’s ability to
meet the demands of the new situation. Stress in itself is not a bad thing. A certain amount is necessary to motivate someone, and without some pressures, life would become boring and without purpose. How man reacts to stress depends on whether one sees himself in control of a situation or overwhelmed by it (Cohen, 2002). Job stress has been defined as the harmful physical and emotional response that occurs when the requirements of the job do not match the capabilities, resources or need of the workers.

II. NEED FOR STUDY

Construction work is an inherently dangerous occupation and highly prone to stressful environment. Researchers’ interests in job-related stress have increased dramatically in recent years. This is because many researchers believe that stress is becoming a major contributor to absenteeism, low employee morale, high accident and turnover rates, decreased productivity and increased company medical expenses, etc. So that this study will help to know about the labours stress condition towards their performance. This determination gives more helpfulness for reducing the stress and increasing their productivity or performance.

III. OBJECTIVES

The construction industry is considered one of the most challenging, competitive and dangerous working environments. So the labours in construction are usually under a heavy workload or stress. The main aim of this study is to analyze the impact of stress on performance of construction labours.

The following steps are carried out to achieve the main objective.

- To conduct a survey among construction workers for identifying the level of occupational stresses.
- To analyze the construction workers performance by conducting questionnaire survey to their supervisors.

IV. REVIEW OF LITERATURES

Based on the topic literatures were collected. From the literatures various stress factors were identified which are affecting the construction project performance. The literatures collected are being used as base for the further proceedings in the project.

The author focused on field managers working for large construction companies, and the research findings could not be applied to every field manager. Therefore, the correlation between job stress and job satisfaction of field managers working for small-to-medium-sized companies should be studied. In addition, the correlation between job stress and job performance needs to be directly analyzed in future research. It is expected that this data will be of great help in the field to increase job performance and manage construction sites. The job stress and job satisfaction of field managers of construction projects at large construction companies were measured. The results showed that the job stress of field managers in construction projects was lower than the average for Korean men. The stress of field managers was found to be lower in the area of job control because they have a higher level of authority in their job and can adjust their schedule and workload at their discretion. For this reason, they may get less stressed out. (An, Sung-Hoon, et al. 2013)

The author focused on work stress factors among professionals like architects, builders, civil/structural engineers and quantity surveyors in the building construction industry in Nigeria. The findings show that the key stress factors among these professionals were high volume of work; lack of thermal comfort, privacy and adequate space in site offices, lack of feedback on previous and ongoing building projects, lack of security/safety measures on site, variations in the scope of work and fragmentation of building work into specialized fields. (Eziyi Offia Iben, et al., 2011)

The author said that the predictors of productivity (i.e., work performance) were investigated with a Stress Evaluation survey. An interesting absence among the predictors found to be significant is physical health, as it is reasonable to expect that reduced physical health would impact on performance and the second influencing factor is organizational commitment to the employees. In summary, this article has provided further support for the relationship between well-being and productivity and has enabled further insight into the relationship between commitment and productivity. Additionally, although individual work stressors were included in the design, we found no direct relationship between stressors and productivity, with the exception of resources. (Ian Donald, et al., 2005)

The author investigates the impact of stress on the performance of CPMs. In order to optimize the performance of CPMs, it is recommended that the stakeholders of construction companies hold regular meetings to review and monitor the job allocations of CPMs. Moreover, regular stress appraisals and stress management workshops should be provided for CPMs, so that they can equip themselves with suitable coping skills to manage stress. In the unfortunate cases where CPMs are already showing signs of physiological stress, employers could refer them for psychological treatment or physiotherapy. Correlation analysis and structural equation modeling are employed to uncover the relationships between different types of stress i.e., objective stress, burnout, and physiological stress and the work performances i.e., task performance, interpersonal performance and organizational performance of CPMs. Stress management workshops, group
or individual counseling, and psychological or pharmacological treatment can play an important role in stress management to ensure quality performance in the industry. (Mei-yung leung, et al. 2008)

The author believes that workers worked for long hours. They might be lacking in concentration towards work due to tiredness and work load. The injuries/accidents were responsible for loss of man days. Low wages, job insecurity, repetitive work and bullying by superiors were some of the causes of occupational stress & strain. Construction industry plays a vital role in development of infrastructure of a country. About 50% of the subjects of unorganized sector belonged to construction industry in our country. Author prepare the questionnaire based cross sectional prospective study was undertaken to know the socioeconomic status and the psychosocial stress & strain faced by the workers due to occupational exposure. (Tiwary G, et al. 2013)

V. METHODOLOGY

The methodology involves collection of literature and conducting study on stress management. The study also continued to find the key factors affecting the stress on the performance of construction labours. Based on the factors a questionnaire was prepared and surveyed from various respondents in the construction industry. The collected data was analyzed using SPSS software. Based on the data obtained analysis will be done and conclusion will be arrived.

VI. RESULT AND DISCUSSIONS

This section focuses on the analysis of the data collected and the presentation of the results. It also explains the method of measurement used, method of coding and the type of analysis carried out. From these analyses, different conclusions and recommendations were made. In this research, a total number of 150 questionnaires were administered and retrieved. The responses were analysed by using SPSS and results are ranked as below,

WORK DEMAND AND ENVIRONMENTAL RELATED STRESS FACTORS

![Figure 1 Work demand related stress factors](image)

![Figure 2 Physical factors affecting stress](image)
From figure 1, it is observed from the work related section that qualitative work overload and working hours has the highest mean score of 3.01 and 3.27 respectively, which indicates that work hours is the most rated factor that causes stress among labours in construction industry.

From figure 2, it is observed from the physical/environmental section that noise levels has the highest mean score of 3.38, which indicates that noise level in working environment is the most rated factor that causes stress among labours in construction industry.

It was also observed from figure 3 that job insecurity, role conflicts and inadequate managerial support is the most rated stressor among the job role factors/stressors.

From the organizational policy related section, it is observed that poor communication with superiors of the of project objectives has the highest mean score of 3.45.

From the performance evaluation factors attendance has the minimum mean value 1.35 and also relationship with co-workers has the value of 1.28.

These results indicates that working hours, work load or too much of work, conflicts between the workers, noise level in construction site and inadequate managerial support were the important factors, which affect the labour performance in the form of poor attendance and repetitiveness of work.

IV. CONCLUSIONS

The construction workers were poor. Majority of them were literate. Their wages were low. Hence, fulfillment of their basic needs was a difficult proposition. The workers were exposed to different types of working environment. Smoking and alcohol intake is a problem. Excess intake of alcohol might result in loss of mental state; misbehavior with general public, their family members etc. They worked for long hours. The workers might be lacking in concentration towards work due to tiredness and work load. The injuries/accidents were responsible for loss of man days. High job demands might aggravate work stress & strain among the workers. The workers were suffering from job stress & strain. Low wages, job insecurity, repetitive work and bullying by superiors were some of the causes of occupational stress & strain. Individual awareness during collection of data was made. However, awareness programmes was necessary for their overall upliftment.

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