

## A Review on Stress among Site Engineers in Construction Industry

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### Abstract

*Construction industries approximately 80% of stress arise during planning, scheduling and execution of work among site engineer at site. As the performance carried out in character, different assessment and behaviour have to be carried out surprisingly. These spontaneous actions are mostly voted for out by the site in charge or the civil site engineer at edifice place. In that they have enormous number of task including job intricacy, any fickle failure is happen, physical hazards, poor crisis management mechanisms, fragmentation of work, harassment activities and Inter role conflicts are involved during site management in construction industry. The main objective of this study to examine the factors influencing stress on middle level managers in construction industry. This study was more predominantly concerned with stress, sources of stress and its causes among site engineer at three level constructions. Data can be collected at three level of construction. From the narrative its clearly shows the stress will crop up while supervision the site in these situation are communication problems, Inadequate room for innovation and bureaucracy purpose, poor workgroup relationship, failure of work and they suggest to execute some training programme, stress relieving techniques to site engineer to reduce the stress level and also recommended some personal characteristics to improve their leadership level in construction industry.*

**Index terms:** Construction industry, Site Engineers, Stress, Stressors, Stress Management Techniques

### INTRODUCTION

The construction industry has been time-consuming familiar as hectic sectors. Around 80% of creation professionals suffered from pressure, anxiety, or depression as a direct result of effective in the construction industry. The character the construction spot engineer acting is elemental to the achievement of their society. Site engineers carry out one of the toughest and hardest jobs in the edifice process. Site engineers are generally consider key persons in the achievement of a manufacture project. The role of site engineer includes not only preparation, organizing, and supervising the project

team and the development of work in construction projects. Site management is well thought-out by a job intricacy, any freckle failure is happen, physical hazards, poor crisis management mechanisms, fragmentation of work, harassment activities, inter role conflicts, and many inconsistent parties to deal with including the management, the subcontractors, the client, etc. The each particular opinion is arranged by site engineers has a through impact on time, expenses, feature, and ultimate success of a construction project, it is unavoidable that site engineers are subject to great contract of stress in their job. This attribute of the work makes it

tremendously flat to stress. Hence, stress is considered to have a negative impact on soul being. However stress is not a damaging. "Deficient stress, there would be no time. "The incentive of stress is essential for every victorious experience, as it is always accompanied by inspiration.

Stress can have serious implications for both the individual's health and recital. In terms of health, the relationship between stress and different serious illnesses has been systematically traditional. The author asserted that engineers go through severe physiological symptoms from stress at work, which compels them to precipitate withdrawal from labour before they have had the opportunity to complete their prospective organizational life. In terms of concert, decision making, pronouncement manufacture under stress becomes faulty. Based on the temperament of structure situate wangle and the fiction on trauma, this learn aims to inspect the brunt of various types of anxiety occur on position managing in structure engineering.

### STRESS MANAGEMENT

Stress is a psychosomatic and physiological rejoinder to a circumstance that is superficial as stressful and concerning a physically powerful expressive stimulation. It is preventative in scenery and finest treated in a primordial manner. Stress produces several bodily and psychological symptoms which vary according to each person's situational factors. These can consist of corporal strength be reluctant as well as melancholy. The method of stress management is named as one of the keys to a pleased and conquering time in contemporary compassion. Even though years provide different demands that can found difficult to cling to, trauma managing provides a magnitude of conduct to manage fretfulness and continue on the whole benefit.

### LITERATURE REVIEW

**Imriyas kamardeen et al (2017)** By using multiple correspondence analysis of data collected from site professionals in the Australian construction industry and investigated the simultaneous influence of six personal characteristics of construction professional such as gender, age, occupation, income, marital status, personality traits on work related psychological illness. Finally they conducting specialized program to reduce the work stress in construction industry

**Paul bowel et al (2015)** South Africa people (black and white) had lot of workplace stress on site management in construction industry. By using survey, harassment and discrimination were found to correlate with high perceived level of work stress, to reduce these factors to implement as part of broader stress management programmes among site management persons.

**Yk Fiona Lamar et al (2014)** identified around 17 stressor in that they particularly identified 3 stress namely job stress, emotional stress, physical stress because the site manager and workers are working long hours and more complicated due to lack of resources. Based on SSPr map they can framed and to reduce these stress to implement some stress management programme and to satisfy their requirements.

**Peter E.D.love et al (2010)** By using international survey of stress and mental health survey in Australia they identified some subscales are work stress, situational stress, personal or self-stress and they measure the stress level by using stress scale. Analysis the stress data by using SPSS version 16 and implement some stress management programme to reduce the stress level in site management.

**Campbell frases et al (2010)** aims to implement some personal characteristics to improve their management skills in construction sites. A set of 26 personal characteristics analyzed to influence the

effectiveness of construction site manager is identified by senior site manager by using nominal group technique. They can improve their skills while applying these characteristics in particular condition of construction industry.

**Peter Edwards et al (2010)** mainly focused on occupational stress affects the health in construction professionals. Totally 7 kind of sources of stress are framed by experienced professionals in south Africa are work to tight deadlines, work long hours, inadequate time to balance with family, kept busy and occupied, improve their skills, work hard.

**Mei-yung leung et al (2008)** investigates the impact of stress on CPMs. The main stress are objective stress, burnout stress, physiological stress, work stress these are the stress are analyzed by using survey, and to finally suggest that regular review of job allocation, stress appraisals, stress management workshop, counseling, psychological treatment be carried out optimize the stress and performance of CPMs

**Alexander styfire (2011)** represents the Site managers face some critical situation in construction industry like having full control of the situation, always in the position to take care of emerging and unforeseen events and spending long hour at work. So they analysis these factors and implement some crisis management, omnipresent site manager while considering overworked

**Per-Erik Josephson et al (2007)** implement some coaching programme on site manager conduct by Swedish construction industry. The main aims to develop a leadership skills, improved their communication, develop their own skills, became better leadership in any situations, stress management programme

**Mustapha FH et al (2002)** identifies the factors of influencing the effectiveness of construction site manager. The overview of the research work is to establish a method for measuring site manager

effectiveness and to investigate the impact of variables such as (personal, job, project and organization) on the level of effectiveness of construction site managers.

### NEED FOR STUDY

- In construction industry lot of problems are facing by site engineer while execution of work.
- To investigate the impact of stress on site management in construction industry.
- Implement some stress management technique to overcome the problems.
- Implement some personal characteristics to improve their management skills.

### Research Objectives

- To identify the problem faced by site engineer in construction sites
- To analyze the sources of stress and stress types occur among site engineer in construction sites.
- To implement some stress management techniques to reduce their stress level and recommendations some personal characteristic to improve their personal skills to develop their efficiency in construction projects.

### Scope of the Work

- To improve the overall efficiency of the project.
- To minimize the stress level while execution of the work.
- To improve their personal characteristics of site engineer.

### SITE ENGINEER'S

- Project anchors.
- Ultimate responsibility for delivering the project within time, cost and quality standards or constraints.
- Mediator between workers and top level management.

- Allocating the exact resources for the current work.
- In Construction Site engineer plan, organize, Co-ordinate and control their projects on the basis of their personal initiative and experiences.
- They are mostly technically oriented rather than management oriented and tends to spend more time in project execution work than in management.

### **Roles and Responsibilities of Site Engineer's**

- Construction Site Responsibilities
- Travelling
- Technical Activities
- Preparation of Reports and Schedules
- Site Engineer for Health and Safety
- Quality Assurance by Site Engineer
- Communication and Leadership duties

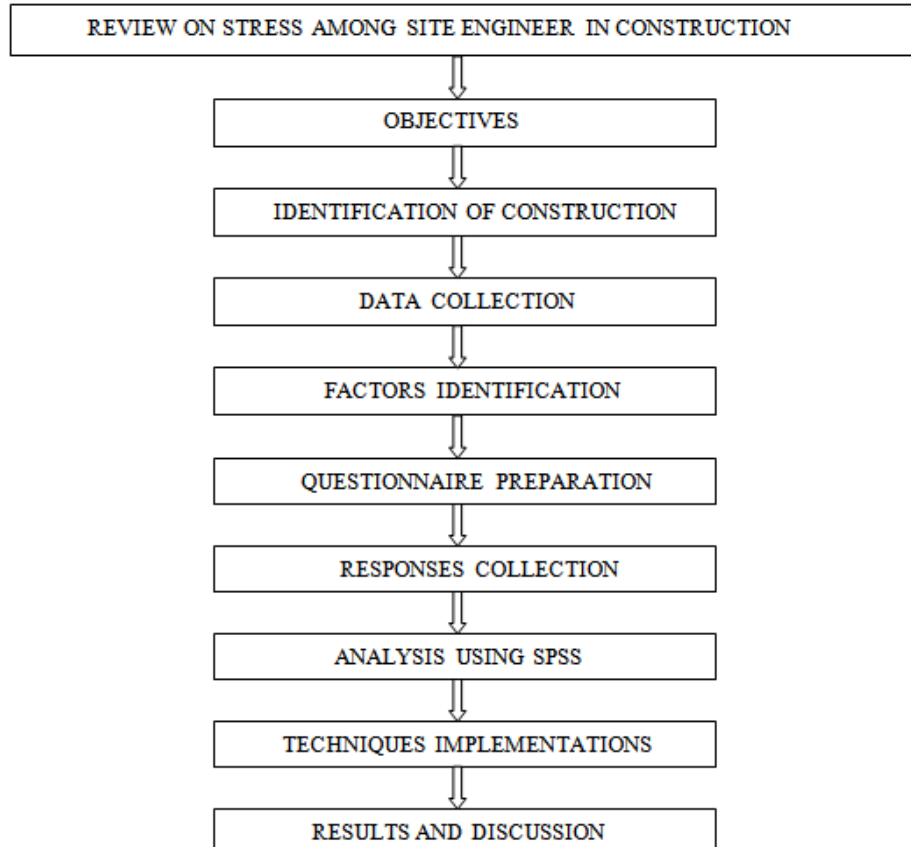
### **STRESS DEFINITION**

Stress is triggered when everyday situations are perceived as either a challenge or a threat, commonly known as the 'fight or flight' reaction. Stress is a dynamic and cognitive state and affects everyone differently. To understand stress, a person needs to understand the source of stress (stressors).

### **STRESSORS DEFINITION**

Stressor is a chemical or biological agent, environmental condition, external stimulus or an event that causes stress to an organism. An event that triggers the stress response may include unpredictable condition, building demolition causes stress.

### **METHODOLOGY**



## **FACTORS AFFECTING SITE ENGINEER**

From various reviews of literature, the factors affecting site engineer in construction industry are identified.

### **WORKPLACE STRESS**

- Communication problems among workers
- Too much of paper work
- Conflict boundary condition

### **WORK STRESS**

- Over compensation for female site engineer
- Work difficulties
- Inadequate room

### **JOB STRESS**

- Work overload
- Inter role conflicts
- Poor workgroup relationship

### **PHYSIOLOGICAL STRESS**

- Physical hazards
- Ambiguity
- Unpredictable climatic conditions

### **ROLEBASED STRESS**

- Inadequate skills
- Fragmentations of work
- Very low income when compare to other job

### **ENVIRONMENTAL JOB STRESS**

- Any unpredictable failure is happen
- Job complexity

### **OCCUPATIONAL STRESS**

- Hostility work environment
- Inadequate resources to do the job
- Violence or harassment

## **CONCLUSION**

From the current swot, stressors induce the anxiety on site engineer are predictable. Site engineer should spotlight on these factor to recover their organization skills and individual features while adopting some stress managing techniques. The results denote that the majority considerable factors to induced stress are

deviation periphery circumstance, new document work, communiqué problems, insufficient room, complexity of work, antagonism work environment, inadequate resources to do the job; irregular failure is happen, underprivileged workgroup relationship. Site engineers should reduce these stresses by using some stress management techniques, guidance programme to increase the on the whole output of construction industry. Consequently it can also develop the overall productivity of the mission in addition shrink the time and cost swamped.

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