

# Effect of Work Environment on Productivity in Construction Management

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**Abstract:** *The study aims at providing the solution for improving the work environment for increasing productivity. Work environment plays an important role in an organisation. Most of the problems faced by employees is related to working environment. The study will give complete idea about the present system in the organisation. The study also helps us to evaluate stress management programs. It studies the existence or non – existence of stress among the employees in the organization and identifies the factors which are contributing for stress (If any). It also provides the various steps adopted by the organization for managing the work stress of the employees, which can be used as future reference for decision-making and policy making with regard to the employees. This study reveals the morale of the employees. Many constructions industries were selected for conducting this research study. A closed ended questionnaire was developed to get feedback from target audience and different statistical methods were used to derive results from the collected data.*

**Keywords:** Work environment, Productivity, Stress

## 1. Introduction

Environmentliterally means surroundings and all those things that impacts human being during the life time is collectively known as environment. A working environment is the environment where people work together for achieving organization objectives. It means systems, processes, structures and tools and all those things which interact with employees and affect in positive or negative ways on employees performance. It can also be defined as the location where a task is completed. When studying place of environment, the work environment involves the physical geographical location as well as immediate surroundings of the work place such as construction building or office building. It typically involves other factors relating to the place of environment such as quality of air, noise level and additional perks and the benefits of employment such as free child care or unlimited office or adequate parking.

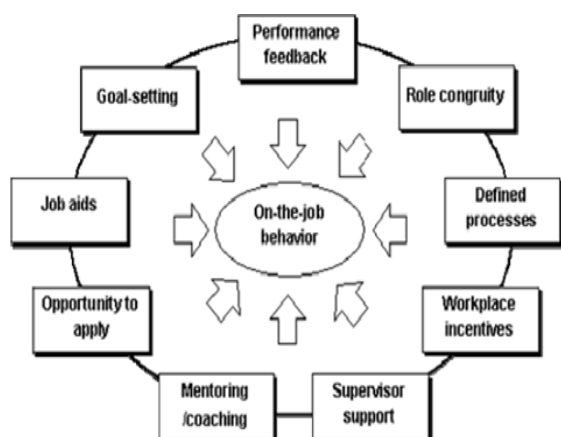
The environment that the people are required to work in can have a significant impact on their ability to undertake the tasks that they have been asked to do. This can affect productivity and employee health and well being. The key factors fall into two categories those that are driven by procedures, protocols and management requirement and the factors that erase from premises, office or factory designs. Management driven factors include the development of organization plans such as the allocation of responsibilities at all levels of the organization, the definition of job descriptions and degree of access to the management and administrative supports needed to complete their tasks; working patterns, shift working, break times, absents or holiday cover; and health and safety policies, including the provision of training, development of safe working practices and the adequate supply of protective and equipment. In today's competitive business environment, management cannot afford to waste the potential of their work force. The

key factors in work place environment impact greatly on employees level of motivation and their performance. The work place environment set in place impacts employee morale, productivity and performance-both positive and negative. And if the circumstance are not good it will be affecting the performance of the employees in the form of delay in work completion, frustration affect on personal growth. Stress is the “wear and tear “our bodies experience as we adjust to our continually changing environment; it has physical and emotional effects on us and create positive or negative feelings.

Stress is a part of day –to –day living of every individual. The college students may experience stress in meeting the academic demands, people on the job, business men may suffer stress to reach office in time and to complete the projects on time and even the household ladies may experience stress in managing the home affairs and to look for the maid servant. The reasons for the stress differ from person to person. The stress people experiences should not be necessarily treated as harmful. An optimum amount of stress can also act as an energizer or motivator and propel people to apply the efforts and complete the work in time. But a high level of stress can be serious threat to the personality trails of individual and can cause physiological and social problems. The Human Resource Development with stress management improvement programs to the employees that required for meeting the demand and challenges in the future. The topic is very relevant to the today's industrial world.

The topic is to analyse the present condition of the employees and also to identify whether the company is using right kind of stress management methods to analyse the employees and to examine whether they are satisfied with their current positions. This project helps both the organisation and the researcher.

### 1.1 Factors affecting work environment



**Figure 1:** Factors affecting work environment

A lot of past research has been devoted towards the concept of employee performance. Employee performance was found to be related to a number of factors including conscientiousness, openness to experience, agreeableness and emotional stability.

### 2. Objectives

- To know the working condition of employees.
- To know the overall satisfaction level of employees.
- To develop an understanding for describing importance of work environment in the organization.
- To ascertain the impact of physical and mental environment on employee performance.
- To describe the factors that develops work place environment and impact positively on employees productivity.

### 3. Scope of This Study

New technologies, communication, information processing and geopolitical upheavals have revolutionized the way we think about the organisation indeed all these factors are part of the organization environmental that the managers must take in to account. The right kind of working environment not only increases the employees productivity but also make them positive with high morale and job satisfaction. For this purpose of the study the employees working in the company have been taken as respondents.

### 4. Literature Review

Based on the literature review, the relationship between design and productivity was conceptualized. The relationship is defined in such a way that the set of factors impact on an individual, which in turn determine the final outcome in terms of increased or decreased productivity of that individual. These factors have different impacts on different employees.

To attain the objective, management of any organization must identify those factors both in employment situation and in the psychology of the workers that best motivated them

and to see to the provision of such factors in order to boost productivity.

Work environment includes some factors, which either contributes positively or negatively to achieving maximum employee productivity. We cannot measure the effectiveness of a job design without the knowledge of the working environment in which the design is place it is part of total picture. The factors which either contributes positively or negatively to employee productivity are: temperature, humidity and air flow, noise, lighting, employee personal aspects, contaminants and hazards in the working environment, types of sub environment.

Many executives are under the mistaken impression that the level of employee performance on the job is proportional to the size of the employee's compensation package. A widely accepted assumption is that better workplace environment motivates employees and produces better results. Office environment can be described in terms of physical and behavioural components. These components can further be divided in the form of different independent variables. An organization's physical environment and its design and layout can affect employee behaviour in the workplace. It is estimates that improvements in the physical design of the workplace may result in a 5-10 percent increase in employee productivity. To achieve high levels of employee productivity, organizations must ensure that the physical environment is conducive to organizational needs facilitating interaction and privacy, formality and informality, functionality and cross-disciplinarily. Ensuring adequate facilities are provided to employees is critical to generating greater employee commitment and productivity. Improving working environment results in a reduction in a number of complaints and absenteeism and an increase in productivity. The indoor environment has the biggest effect on productivity in relation to job stress and job dissatisfaction. It is evident in the research findings of Patterson et al., (2003) that the more satisfied workers are with their jobs the better the company is likely to perform in terms of subsequent profitability and particularly productivity. The management that dictate how, exactly, to maximize employee productivity centre around two major areas of focus: personal motivation and the infrastructure of the work environment. There are various literatures that define different factors that influence the performance of the employees.

### 5. Research Methodology

Primary data has to be collected through a structured questionnaire. The questionnaire has to be based on five point Likert scale i.e Strongly disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly agree (5).. The employees in the construction companies are the target audience. Both new joiners and experienced workers were targeted. The research design consisted on cross sectional data analysis and it was a field survey through self developed questionnaires. Primary and secondary data was used to conduct the research study. The primary collected by using a questionnaire while secondary data was collected through journals, articles, research papers, magazines and internet etc

It was planned to collect the feedbacks from various stakeholders of construction industry from

Thiruvananthapuram city of Kerala state of India. The survey has included Labors and Developers. This research work includes use of Ranking Techniques.

## 6. Data analysis

This research work has used following two methods for carrying out ranking work

### 6.1.RII Method

$$R.I.I = \sum W/A \times N$$

Where,

$\sum W$  = weighting given to each factor by the responder (Range 1 to 5)

A = Highest weight

N = Number of respondent

### 6.2.Convenience Sampling

$$n = n' / [1 + (n'/N)]$$

Where,

n=Total Number of Population

N=Sample size from a finite population

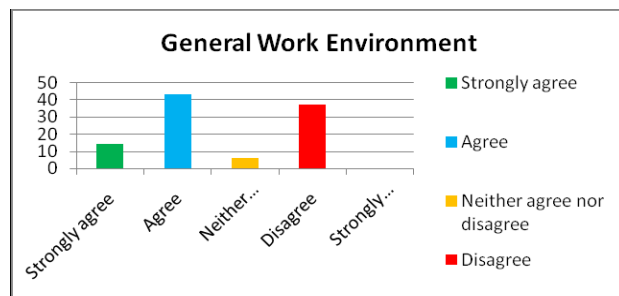
n'=Sample size from an infinite Population= $S^2/V$

$S^2$ = the variance of the population elements

V= A standard error of the sampling Population

## 7. Results and Discussion

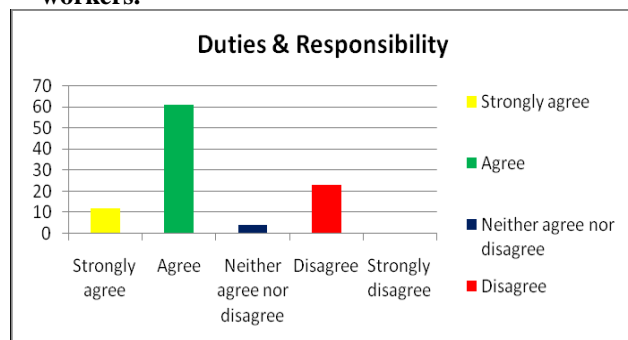
### 7.1. General work environment



**Figure 2:** General Work Environment

Result: General work environment is positively agreed by 43% employees as well as 14% employees are strongly agree whereas 37% employees are not agree and 6% are those who are neither agree nor disagree.

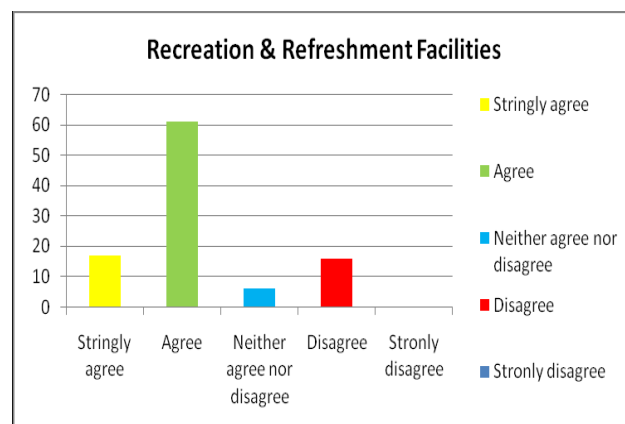
### 7.2.Duties & responsibilities are equally divided in co-workers.



**Figure 3:** Duties & Responsibilities

Result: About 61% employees are agree, 12% employees are strongly agree whereas 23% employees are disagree with the duties and responsibilities are equally divided in co-workers where 4% employees are neither agree nor disagree.

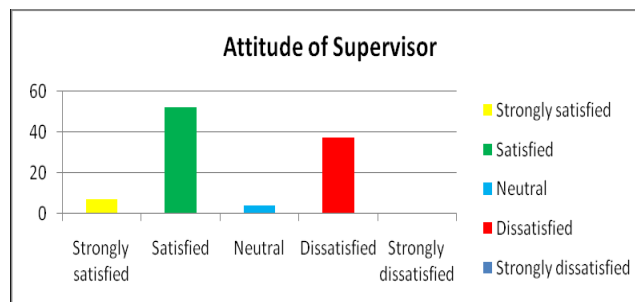
### 7.3.Recreation and refreshment facilities.



**Figure 4:** Recreation & Refreshment Facilities

Result: 61% employees are agree for providing proper recreation & refreshment facilities in the working place whereas 16% employees are not agree. So, from the above table it has evaluated that Dominos provide a good refreshment facility for their employees.

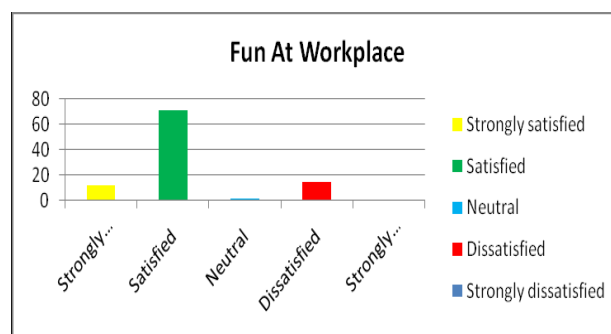
### 7.4.Attitude of Supervisor



**Figure 5:** Attitude of Supervisor

Interpretation: From the above data 52% employees are satisfied with the attitude of supervisor whereas 37% employees are dissatisfied. So, it has evaluated that maximum employees are satisfied but the no. of employees who are dissatisfied are not very low, therefore we cannot say that attitude of supervisor is moral for all employees.

### 7.5.Fun at workplace



**Figure 6:** Fun at Work

Interpretation: 71% employees are satisfied with fun at working place and feel enjoy in working hours whereas only 15% employees are dissatisfied. Therefore, from the above table it has evaluated that employees working in Dominos are feeling good and having fun in their working place.

We observed that Supervisor Support helpful in developing a working environment that leads to increase in employees' productivity. Similarly good incentives, recreations, refreshment and fun at work place are also helpful in developing a conducive working environment that has positive impact on employees' productivity as endorsed. The indices along with the few major factors were analyzed with the help of convinced sampling.

## 8. Conclusion

From the above analysis we have reached the conclusion that working environment is helpful increasing employees' level of productivity. Factors like supervisor support, good relation with co workers, training and development, attractive and fast incentives and recognition plans and adequate work load are helpful in developing a working environment that has positive impact on employees' level of productivity in the organisation.

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