

# INFLUENCE OF WORKPLACE DESIGN ON EMPLOYEE'S PERFORMANCE

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## ABSTRACT

*Color, light, air quality, ambient circumstances, and noise have a significant impact on office employee performance. All of these elements have an influence on employee performance and are causes to raise or lower the working quality of employees. The muscles, eyes, and other bodily components are affected by workplace design, computer usage, and seating positions. The availability of a better workplace environment and design improves staff performance and wellness, resulting in a much better and productive output. There is a clear research vacuum in the field of identifying and measuring the drivers of employee workspace design and their influence on productivity. This emphasises the relative relevance of this notion, as well as the necessity for more investigation in the Indian context.*

**Keywords:** *Workplace, Performance; organization; Office, Environment*

## INTRODUCTION

Because office workers spend the majority of their time within the buildings where they work, the physical environment of an office or workplace is critical in creating a positive and healthy working environment. An office is a location where clerical tasks are completed. "The information and knowledge processing operations of an organisation, including filing, planning, designing, overseeing, analysing, determining, and communicating, are regarded to have a shared notion of an office building as a workplace. The necessity to organise, coordinate, and oversee these operations led to the construction of office buildings ".

The qualities of the workplace environment have continuously been shown to have a major impact on worker behaviour, perceptions, and productivity. It is commonly considered in the workplace that individuals who are happier with their physical surroundings are more likely to create better job results. User happiness is viewed as a significant measure of performance and is acknowledged as an important aspect in an organization's success. This is founded on the idea that higher levels of satisfaction boost morale and lower voluntary turnover. Employee contentment with their work environment is strongly connected to job satisfaction and indirectly related to organisational commitment and turnover intention, according to other study.

Because of the diversity in social and technological aspects of the modern scientific world, the working environment has changed rapidly in recent years. Various studies have found that employee performance is highly influenced by their working circumstances. Employee performance improves when working circumstances are improved. A variety of elements, such as the colours in the

environment, the lighting, and the seating arrangement, can have an impact on an employee's performance.

Ergonomics is the study of how people and their jobs 'fit' together. It prioritises people, taking into consideration their strengths and limits. Ergonomics seeks to ensure that each worker's activities, equipment, information, and environment are appropriate.

## **WORKPLACE DESIGN**

The optimal layout, which encompasses ergonomics and workflow flow, is critical for improved performance. According to the results of a survey that analysed numerous replies from workers regarding their workplace, the majority of employees (90 percent) say that their attitude toward work is most impacted by their working environment. According to another study, one of the primary effect factors on productivity is dissatisfied employees, inadequate workplace standards, and environmental circumstances.

Lowering these standards, on the other hand, will introduce a higher rate of dissatisfaction and stress; on the other hand, a more innovative environment requires a more comfortable and optimised environment for the job, and then higher productivity can be achieved; on the other hand, lowering these standards will introduce a higher rate of dissatisfaction and stress.

The most important elements of a workplace's environment are the layouts of office design and furniture, lighting, and floor configuration. According to the conclusions of another study, the physical environment has an important influence in the formation of the workplace's network and relationships. Employees have less stress while performing their work in a better physical environment.

## **THE OFFICE ENVIRONMENT'S KEY ELEMENTS**

Colors, light, air quality, ambient conditions, noise, mouse, keyboard, monitor, sitting seats, desk, ergonomic circumstances, and lack of privacy, among other things, have an impact on office employee performance. All of the aforementioned criteria are grounds to raise or lower the degree of employee job quality. The workplace environment includes furniture, noise, lighting, communication, temperature, and air quality.

### **Furniture**

The type of seating or comfy furniture used in the workplace has a significant influence on the user's health. The use of forearm support appears to greatly minimise neck stress, and this configuration has also been shown to be beneficial to shoulders.

### **Noise level**

A lot of studies have been conducted on noise and its influence on staff performance as well as employee welfare. Noise levels above 85 decibels have a detrimental influence on performance and have been proven to be a key indication for performance enhancement. Work rate and accuracy are two separate things, and noise appears to have a detrimental impact on work rate. Noise has a

different effect on men and women. When compared to their male colleagues, female employees appear to be more influenced by noise.

### **Temperature**

People operate in a variety of climatic circumstances; raising the temperature can severely affect the performance of any task. Employee health will be harmed as a result of the rise in cardiovascular stress caused by the temperature, which also impacts performance. The length of a work and how long an employee is exposed to the temperature are both essential elements, although hot (over 900F) and cold (below 500F) temperatures have a negative impact on performance.

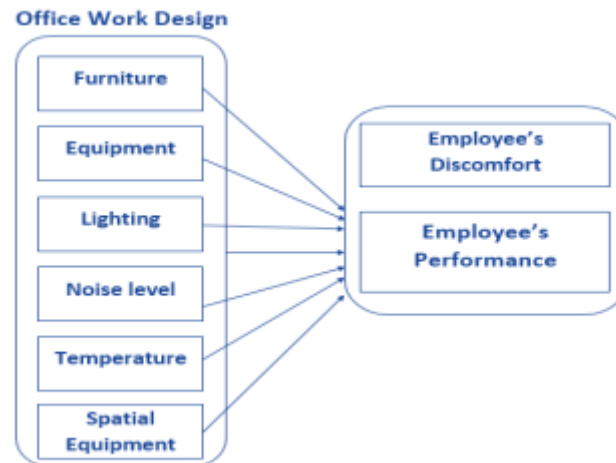
### **Light**

The intensity of light induces eyestrain, which impairs sleep patterns and visual sensitivity, both of which have a major impact on performance. Light, depending on its intensity and hues, such as yellow or white light, has distinct effects on the eyes, neurological system, degree of weariness, and brain activity. Lighting is crucial in creating a comfortable work environment. Depending on the situation, it may have an impact on employee performance.

### **The Physical environment and Employee Performance**

One of the important characteristics of today's corporate environment is achieving good performance. Organizations are enlisting resources to boost performance by enhancing workplace design and making it more pleasant and inventive. According to, workplace performance refers to how all of an employee's resources provided by his or her employer assist the company flourish.

Employees' views about their workplace design have a part in their performance, as does not feeling comfortable, which is frequently caused by lighting, noise, and ventilation systems. Person comfort is defined as the degree at which an employee offers their best performance to a certain task in a given workplace environment. Employee performance is also influenced by their motivation to complete particular tasks with care.



*Figure 1: Workplace Design*

## RESEARCH METHODOLOGY

This is a basic research study that uses a survey created by the researcher. The goal of this study was to see how different workplace design aspects affected employee performance in companies.

In order to do so, a survey of randomly selected companies was chosen so that the impact could be quantified using questionnaire data. Quantitative data was obtained using a Likert scale on two sets of questionnaires. Employees are asked a series of questions to determine whether organisational elements (such as workplace design characteristics, management assistance, technology and equipment, and colleague support) in their relevant workplace hinder or enhance their capacity to perform well. The first questionnaire dealt with office design and its influence on employee productivity, while the second dealt with work designs and their impact on employee performance. The survey includes project and HR managers from chosen firms, as well as workers from most business divisions. The degree of influence of several employee work design aspects on employee productivity was assessed by respondents.

## DATA ANALYSIS AND INTERPRETATION

For each question in sections one and two of the questionnaires, the data was generated and evaluated using a graphic table.

The surveys were delivered to 150 personnel from several business areas, including project managers and human resource managers. There were 50 business line workers from small businesses, 50 business line employees from mid-sized businesses, and 50 business line employees from large businesses among the responders.

**Table 1: Is the Breakdown of the Respondents**

Size of the Company	No of Respondents (Business Lines Employees Including Project & HR Managers)	Percentage
Small	50	100%
Medium	50	100%
Large	50	100%

**Table 2: Impact of Various Employees' Work Design Factors on Employee Productivity**

Factors	Impact on Employee Productivity					
	Increase		Decrease		No Change	
	No. of Respondents (n)	%	No. of Respondents (n)	%	No. of Respondents (n)	%
Workplace design features	28	93.3	0	0	2	6.6
Management support	26	86.6	1	3.3	2	6.6
Technology and equipment	28	93.3	0	0	2	6.6
Coworker support	24	80	1	3.	5	16.
Effective communication	26	86.6	1	3.3	3	10

**Table 3: Impact of Various Office Design factors on Employee Productivity**

Office Design Elements	Pearson Correlation(r)	Significance (2-Tailed)
Work space	.194(*)	.047
Comfortable furniture with adjustable ergonomic features	.467(**)	.000
Noise and Acoustics	.190(*)	.046
Appropriate Lighting	.720(**)	.000
Temperature and Air	.467(**)	.000
Aroma	.194(*)	.047
Spatial arrangement	.467(**)	.000
Privacy	.380(**)	.000
Individual Design controls built-in flexibility (The ability to control the workplace Design)	.429(**)	.000

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results show a positive association between furniture and productivity ( $r = 0.194$ ), which is statistically significant at 0.05. This demonstrates that when workplace furniture is uncomfortable and does not meet the demands of employees, productivity suffers. Noise and productivity have a good link. At 0.01 significance, the correlation coefficient ( $r=0.429$ ) is significant. The positive connection between illumination and productivity ( $r = 0.720$ ) at 0.01 indicates that workplace lighting has a strong influence on employee productivity.

Temperature has a substantial link with production ( $r=0.467$ ) with a  $p=0.01$  significance level. The space factor in office design is Spatial Arrangement; when the correlation was analysed in SPSS, it showed a positive relationship with productivity ( $r=0.380$ ) with a  $p=0.01$  value. It indicates that the physical layout has a significant impact on staff productivity.

**Table 4: Impact of Various Office Design Factors on Employee Productivity in Percentage**

Factors	Impact on Employee Productivity					
	Increase		Decrease		No Change	
	No. of Respondents (n)	%	No. of Respondents (n)	%	No. of Respondents(n)	%
Work space	26	86.6	1	3.3	2	6.6
Appropriate Lighting	28	93.3	0	0	2	6.6
Temperature	24	80	1	3.3	5	16.6
Noise and Acoustics	26	86.6	1	3.3	3	10
Aroma	23	76.6	3	10	4	13.3
Individual Design controls built-in flexibility (The ability to control the workplace Design)	19	63.3	2	6.6	9	30
Privacy	22	73.3	3	10	5	16.6
Indoor Air Quality	20	66.6	3	10	7	23.3
Comfortable furniture with adjustable ergonomic features	19	63.3	2	6.6	9	30
	26	86.6	1	3.3	2	6.6
Spatial arrangement	24	80	1	3.3	5	16.6

## CONCLUSION

The findings of this study show that the design and physical work space that individuals occupy on a daily basis have a significant impact on their productivity at work. The findings of this study

show that workplace design has a major impact on employee performance in a firm. Employee performance may be improved and health-related difficulties can be reduced by offering a decent workplace design in a business. "People who are uncomfortable with the temperature, water quality, lighting, and noise conditions in their workplaces are more likely to indicate that this impacts their attention at work," according to Andrian Laeman's research. Other studies have found that productivity is closely linked to the quality of the interior environment. As a result, it can be concluded that top management of organisations should consider not only temperature, water quality, lighting, and noise, but also indoor air quality, thermal comfort, layout of individual workspaces, workplace colour schemes, interior plants, dust levels and biological contaminants, indoor carbon dioxide concentration, and many other factors.

Finally, a pleasant working environment is necessary for employees to concentrate and perform at their best. This will improve both the quality of life and the performance of office workers, resulting in improved organizational performance.

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