

# To study the difference in perceived satisfaction with various indoor environment variables in public sector and private sector employees: Case study in Punjab

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## ABSTRACT

*The section of a nation's economy, which is under the control of government, whether it is central, state or local, is known as the Public Sector. The section of a nation's economy, which owned and controlled by private individuals or companies is known as Private Sector. Over the years, many organizations have been trying new designs and techniques to construct office buildings, which can increase productivity, and attract more employees. There has been much debate over whether public sector employees are more satisfied with Indoor environment variables, relative to their private sector counterparts, and how this satisfaction affects their productivity. Present study aims to study the difference in perceived satisfaction with various indoor environment variables in government and private sector employees. The total of 600 employees from various offices of Punjab was recruited as sample. The age range of the sample was between 25 to 55 years. Sample was divided into two group- Group 1 consisted of 305 employees working in Public offices and Group II consisted of 295 employees working in Private sector. Results reveal that when Public and Private employees were compared on all office environment variables significant differences were found on satisfaction with Furniture, Temperature and Noise. Private employees appear to be more satisfied with Furniture, Temperature and Noise condition of their offices as compared to employees working in Public sector offices.*

**Keywords:** environment, public private organization, perceived satisfaction, correlate, Design, Built environment.

## Introduction

Public Sector versus Private Sector comparisons is a debate which seems to be a never ending topic. It is very difficult to take stand for either of these two forms of administration. In today's competitive economy, the presence of dedicated and brilliant employees in an organization requires more attention than in the past, owing to the increasingly complex nature of duties. Greater intellectual attainments and innovative approaches are required and management must keep abreast of technological progress and social aspect for development and motivation of its employees to remain ahead of competitors. By effectively utilizing the talented people, organizations may achieve successful results and develop a highly productive work force (Harrington, 2003).

Over the year's surveys in several office buildings have shown that crowded work places, job dissatisfaction and physical environment are the main factors affecting productivity. Majority of employees believed that the office environment has a direct influence on their well-being and self assessed productivity. When dissatisfaction with the environment and job were high there was a low level of self assessed productivity. Various literature pertain to the study of multiple offices and office buildings indicated that the factors such as dissatisfaction, cluttered workplaces and the physical environment are playing a major role in the loss of employees' productivity (Fjeld and Bonnevie, 2002, Abbot, 2004; Wyon et al., 2004; Animashaun and Odeku , 2014).

There has been much debate over whether public sector employees are more satisfied with Indoor environment variables, relative to their private sector counterparts, and how this satisfaction affects their productivity. In a lone study Salama (2012) studied the impact of the spatial qualities of the workplace on architects' job satisfaction. Private sector architects indicated that they felt very positively about the relationship between their workspace and their work tasks. Supportive work environments were characterized by appropriate acoustics and space variations and flexibility. On the other hand, public sector architects are not entirely concerned with the architectural agenda. There is dearth of studies in this area in west as well as in India. Present study is being undertaken to probe into this area.

## Methodology

### Sample

A total of 600 employees from various offices of Punjab were recruited as sample. The age range of the sample was between 25 to 55 years. The employees who were working for the last three years in a particular organization were considered for inclusion in this study. The minimum educational qualification

of the selected subjects was graduation. In the present study sample was divided into two groups Group I consisted of 305 public sector employees and Group II consisted of 295 private sector employees

### Questionnaire

The data collection instrument for this study was a structured questionnaire developed by the researcher with the help of experts. The questionnaire is adapted and modified version of already existing scales of occupants' satisfaction with indoor environment quality (IEQ) components of other buildings by different researchers. The questionnaire items were developed to reflect the satisfaction/comfort/productivity components of the office environment. The questionnaire for the study contained 44 total items pertaining to employees' general demographics and satisfaction with thermal, acoustic, and lighting conditions. The items of the questionnaire were related to the occupants' satisfaction of the IEQ components of thermal, acoustic, and lighting conditions. They were rated by the occupants based on a five-point Likert-type scale (1= "very dissatisfied" to 5 = "very satisfied").

### Data Analysis

For result findings and in-depth analysis of the different components of office environment on the productivity of the office employees, statistical techniques of t test has been used. SPSS 16 software as research tool for data analysis was used for this research.

As per the compiled research study sample data, 50.83 percent office employees' were Public and 49.2 percent were Private sector employees. The response of overall samples according to the category of organization and the significance of mean differences between Public and Private sector employees on various variables of office environment and productivity of are presented in Table 1.

Table 1. Significance of Mean Difference in Scores of Office Design Components between Public sector. (N=476) and Private sector. (N=184) Employees

Variable	Public /Private sector	N	Mean	Std. Deviation	t
Furniture	Public	305	3.05	.734	-4.25**
	Private	295	3.31	.628	
Noise	Public	305	2.96	.577	-2.05*
	Private	295	3.05	.560	
Temperature	Public	305	2.66	.467	-4.77**
	Private	295	3.08	.498	
Lighting	Public	305	2.93	.769	.166
	Private	295	2.92	.727	
Spatial Arrangement	Public	305	3.17	.757	-1.67
	Private	295	3.16	.731	
View Window	Public	305	2.91	.817	1.06
	Private	295	2.98	.823	
Nature Plants	Public	305	2.56	.833	-0.74
	Private	295	2.61	.813	
Productivity	Public	305	3.56	.726	-3.96**
	Private	295	3.79	.712	

\*\* Significant at .01 levels & \* Significant at .05 levels

It may be observed from the table 1 that statistically significant mean differences were found between Public and Private employees with regard to Furniture, Temperature, Noise variables of office environment. However, Public and Private sector employees did not show significant mean differences in nature/plants, Lighting, Spatial Arrangement, View Window variables of office environment.

Private sector employees appear to be more satisfied with Furniture, Temperature and Noise condition of their offices as compared to employees working in Public sector offices. Public sector employees reported that lack of visual and acoustic privacy, and uncontrolled sounds levels can cause significant decrease in task performance and workplace satisfaction. These factors may also cause disturbance in various activities employees are performing, and affect their productivity.

The choice of workplace furniture is important, because an employee needs them to function effectively in the office (Schriefer, 2005). In the work place the essence and need for ergonomics are to ensure maximisation of productivity by reducing operator fatigue and discomfort (Bridger, 2008). Improving the office sound can lead to increase in employee productivity (Kelsall, 2002). According to Dyna sound Collaborative Studies of five major corporations, noise contributes the biggest proportion on the office environment distractions at 71%, followed by air (20%) (Folsom, 2002). Raised temperature increased eye, nose and throat irritation, headache intensity, difficulty in thinking clearly and concentrating, and decreased self-estimated performance (Wyon et al., 2004)

Salama (2012) studied the impact of the spatial qualities of the workplace on architects' job satisfaction. Private sector architects indicated that they felt very positively about the relationship between their workspace and their work tasks. Supportive work environments were characterized by appropriate acoustics and space variations and flexibility. One private sector employer believed that "the interaction present in open plan offices helped employees complete their work tasks." On the other hand, public sector architects are not entirely concerned with the architectural agenda. One public sector organization stated that despite the fact that its office was not very different from other public sector buildings in Belfast, the organization had set goals to achieve with regards to service ability to employees. By and large, public sector architects felt that change and improvement was necessary for their workplace to fully support work tasks. Public sector organizations claimed that such improvements are underway. Improvements generally involved restructuring the office to achieve a more open layout.

## Conclusion

In recent years there has been an increase in public awareness about the effects of the indoor environment on employees comfort and health. In light of growing concerns about productivity, much more attention has focused on the indoor environment in private set up in India. In government offices making any change in the infrastructure is a very tedious process because of various official procedures.

This research study is adding to the existing body of knowledge in environmental psychology by providing insights into employees' perception of their office environment.

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