



## SATISFACTION WITH SPATIAL ARRANGEMENT AND EMPLOYEES PRODUCTIVITY

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**ABSTRACT** Workplace design may promote organizational success by creating environments that support work quantity, quality, and style, while improving turnover and absentee rates. Spatial arrangement can increase impromptu interactions and productivity of employees. In reference to India this is a new area of research. In India, office environment and related processes are considerably sidelined. Aim of this research is to study the relationship of satisfaction with spatial arrangement with employees productivity. A total of 660 employees from various offices of Chandigarh were recruited as sample. The age range of the sample was between 25 to 60 years. The questionnaire used was an adapted and modified version of already existing scales of occupants' satisfaction with indoor environment quality (IEQ) components of other buildings by different researchers. Results indicate that employees productivity is positively correlated with satisfaction with spatial arrangement. In order to achieve good working environment that lead to high productivity, office layout (furniture and its arrangement in accordance with the given space) plays an important role in motivating good communication and getting the well distributed and healthy environmental system.

**KEYWORDS :** environment, Spatial Arrangement, perceived satisfaction, correlate, Design, Built environment

### Introduction

Spatial arrangement is the property possessed by an array of things that have space between them. Spatial organization issues include the openness of the layout: that is, the proportion of open workstations to private, enclosed offices, the height of partitions and the distance between open workstations, as well as access to needed resources, such as technology and, equipment meeting rooms and washrooms. Spatial arrangement can increase impromptu interactions (Peponis et al., 2007), and employees tend to choose the easiest method of communication (Gerstberger & Allen, 1968). Given that these interactions can lead to stronger collaboration and productivity (Campbell & Campbell, 1988; Rashid et al., 2006), adjusting the workplace to promote such interactions is in an organization's best interest.

A survey has found that three-quarters of UK employees find the office design of their workplace hampers their work (Sarah, 2008). "Companies need to do more than simply house their people in a workspace and [need to] look to turn their attention to supporting innovation, collaboration and flexibility" (Haynes, 2008). Workplace design has failed to keep pace with the changing nature of work, according to Gensler's (2008) Workplace Study, which surveyed 309 employees. Companies with more flexible layouts – formal desk layouts combined with sofa areas and cafe style areas used for different purposes find that 70 per cent of employees are more satisfied at work, compared with 50 per cent of workers at companies where layout is more traditional.

In reference to India this is a new area of research. In India, office environment and related processes are considerably sidelined. The physical aspects of the work environment do not always receive as much attention as the managerial and interpersonal aspects. There is a need to find out the impact of office design (in terms of satisfaction with spatial arrangement) on employees' productivity.

### Methodology

#### Sample

A total of 660 employees from various offices of Chandigarh were recruited as sample. The age range of the sample was between 25 to 60 years. The employees who were working for the last three years in a particular organization were considered for inclusion in this study. The research took place approximately three year post-occupancy to eliminate effects related to occupants being satisfied with the building because it was new and different (Franke & Kaul, 1978). The minimum educational qualification of the selected subjects was graduation.

#### 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. Thirty-two 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 correlation has been used. SPSS 16 software as research tool for data analysis was used for this research.

### RESULTS AND DISCUSSION

**Table 1: Descriptive Statistics**

Variables	Mean	Std. Deviation	Respondents (N)
Productivity	3.61	0.73	660
Spatial Arrangement	3.18	0.75	660

**Table 2: Coefficients of Correlations between Productivity and Element of Office Design**

Sr. No.	Variable	(r)
1	Spatial Arrangement	.105**

\*\* Significant at .01 levels

Results indicate that employees productivity is positively correlated with satisfaction with spatial arrangement. The obtained findings are consistent with earlier research by Collins, 1975; Heerwagen and Diamond, 1991; Backhouse and Drew, 1992; Stallworth and Kleiner, 1996; Penn, et al., 1999; Sarah, 2008. In order to achieve good working environment that lead to high productivity, office layout (furniture and its arrangement in accordance with the given space) plays an important role in motivating good communication (Omotore, 2010) and getting the well distributed and healthy environmental system. Office design is defined as, "the arrangement of workspace so that work can be performed in the most efficient way". Spatial planning is gaining importance and has to align with the overall organizational objectives, and, has to augment the positive organizational behaviour. Proper interaction and communication increases group cohesiveness. Spatial arrangement help individuals come together, and, through interaction and communication form a cohesive community, and subsequently, lead to increase organizational creativity. Deb and Sinha (2010) stated the importance of spatial planning has become more prominent which has to be on line with the objectives of an organization. Interaction and communication that suit the environment would lead to a positive alignment. In addition, Deb and Sinha (2010)

also explained that the design of spatial arrangement and its consideration can be the most substantial strategy in Human Resource in enhancing the possibility in balancing the workers with their individual job and teamwork assignments.

In order to achieve good working environment that lead to high productivity, office layout (furniture and its arrangement in accordance with the given space) plays an important role in motivating good communication and getting the well distributed and healthy environmental system.

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