

**Interior Design and its Impact on of Employees' Productivity in Telecom Sector,
Pakistan**

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Abstract

Better interior design is compulsory to increase employees' productivity in every sector either manufacturing or service. Five dimensions of interior design were used in this study like Furniture, Noise, Temperature, Lighting and Spatial arrangements. The major purpose of present study is to examine the relationship between office interior design and employees' productivity. The present study is quantitative in nature. Data was collected from the employees of telecom sector of Sahiwal division in Punjab. A 200 sample size was selected to conduct this research. Primary data was collected by structured questionnaire. The Descriptive Statistics, Correlation and Regression analysis were used by SPSS to find out the impact of interior design on employees' productivity. Results showed that interior design has positive association with employees' productivity.

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1. INTRODUCTION

Developing countries and their developing markets are even becoming more competitive due to the competition and entrance of private stakeholders. So, it is quite difficult for organizations to make their staff a loyal patron of an organization. Employees have larger opportunities to switch to the competitors. So situation like that it's not affordable for enterprise to lose employees and potential of their workforce. Fifty percent of their lives spend in indoor environment that affect their physical and mental health (Jensen, 2005). Several factors lead to the employees switching in competitive market literature support that workplace/office interior design is important factor that affect employees' productivity. Employees better work output and long term retention with organization increase their productivity and this is only possible due to better workplace environment. Previous studies reveal that office building and physical workplace environment play vital role in the productivity of employees (Carnevale, 1992; Clements-Croome, 1997).

Ajala (2012) studied 2000 employees and reveal that nine out of ten said that workplace environment affect employees attitude and increase or decrease the work productivity. In context of Pakistan, office interior design is relatively a new topic. Although, few studies are there but a thorough study of this concept is needed in different organizational environmental management context. The purpose of this study is to analyze the impact of office interior design on the employee's

productivity in telecom sector of Pakistan. Although this study is limited to office environment yet other features of environmental management are not addressed in this study. The prime objective of the research is to see the impact of interior design on employees' productivity. The present study is quantitative in nature. Data will be collected from the employees of telecom sector of Sahiwal division in Punjab by using structured questionnaire. A 200 sample size will be selected to conduct this research. Descriptive Statistics, Correlation and Regression analysis will be used by SPSS to find out the impact of interior design on employees' productivity

1.1 Research significance

This study will investigate the relationship between office interior design and productivity of employees. Human resource professional continually addressing this concept and topic having few researches in Pakistan in different industrial context as per researcher knowledge but still there is a gap and it is a relatively new topic in Pakistan.

In Pakistan office or workplace environment issue has not got that much importance. (Amina & Shehla, 2009) explains that less importance is given to the office design. And it directly affects the employees' performance, but they are unable to complain about that issue. Productivity effects such as negative behavior with customers, customers' complaints against staff and delay in work and frustration and this will also affect their overall lives. Present study tries to dig out the factor affects such as furniture, noise,

temperature, lighting, spatial arrangements on employees' productivity.

1.2 Problem statement

The specific problem statement of the study:

To investigate the impact of interior design on employees' productivity of telecom sector in district Sahiwal Division (Punjab) Pakistan.

1.3 Research objective

This study tries to investigate the relationship of work place interior design on the overall productivity of employees.

The objectives of this study include:

- To examine the interior design of telecom customers centers and franchises.
- To assess the office environment features that employees value in workplace.
- To know the impact of office interior design on employees' productivity.
- To provide possible recommendations for future research in Pakistan.

2. LITERATURE REVIEW

A common phrase famous in every industry employees is that better workplace environment increases positive outcome results. Offices are designed by keeping in view the job, natural requirements and employees who are going to work at that place. The productivity of employee is examined according to the task assigned to him/her. At top management level organization performance affects many factors such as its workforce, innovative

implication of technology and organizational objectives. It's also affected by physical environment and this leads to affect the physical and mental health, performance and productivity of employees.

2.1 Office interior design

Office design is an arrangement of office accessories in such a way that work can be performed in sophisticated and efficient manner (BNet business Dictionary, 2008). National council of interior design Qualification (NCIDQ) explains interior design as an art and science arranging functional space as per requirement of people's behavior that are going to work there with creative and technical ideology. The better environment of workplace increases the chances of enterprise success and enhances the quality of work productivity. Quality of lifestyle also improves employees' work performance turnover and decreases absence rate (Hameed, 2009). Interior design is being used by many organizations in order to attract and retain their employees. American society of interior designers (1999); (Hameed, 2009) for retaining or leaving the job physical environment is one of the top three factors after compensation.

2.2 Productivity

Outcome that employees can generate with minimum effort is called productivity (Rui & Pitarma, 2003). Per hour outcome generation and quality of outcome is known as productivity (Sehgal, 2012). Something that increases enterprise functions and overall all performance and quality of output (Dorgan, 1994).

2.3 Workplace and productivity

Office design significance affects employees work output, workplace environment motivates employees that ultimate leads to the sustainable employees performance (Amina & Shehla, 2009). Office environment causes to enhance employees' productivity having significant influence on that (El-Zeiny, 2013). Interior design and environment management

process positively affect employees' outcome and overall enterprise performance (Ojalere, 2014). Better workplace environment improves employees' performance 19 percent and managers' performance 17 percent. Another study explains that 90 percent of participants express that better office interior design positively affect employees' productivity (Gensler, 2006).

2.4 Theoretical framework and hypotheses

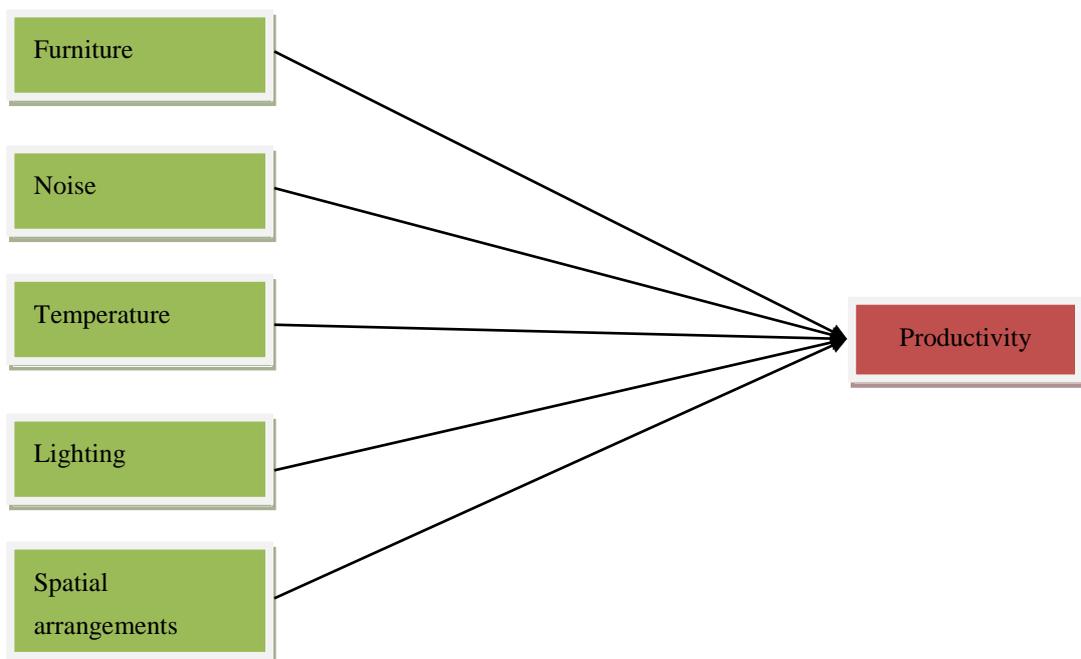


Figure1: Depicts that the independent variables including furniture, noise lighting, temperature and spatial arrangements may affect the dependent variable employee's productivity in telecom sector of Pakistan

2.5 Research hypothesis

On the basis of previous studies the present study hypothesis that:

H1: There is a positive association of furniture and productivity of employees of telecom sector in Pakistan.

H2: There is a positive association of noise and productivity of employees of telecom sector in Pakistan.

H3: There is a positive association of lighting and productivity of employees of telecom sector in Pakistan.

H4: There is a positive relationship of temperature and productivity of employees of telecom sector in Pakistan.

H5: There is a positive association of spatial arrangement and productivity of employees of telecom sector in Pakistan.

3. RESEARCH METHODOLOGY

This study tries to investigate the relationship impact of work place interior design on the overall productivity of employees. The telecom sector outlet of Sahiwal division of Pakistan has been chosen as the population of current study. Out of 35 customer centers and franchises 25 were selected as sample. 200 employees' of these telecom outlets were chosen as a final sample and the questionnaire on each outlet distributed in such a way that 4 employees from each outlet participated in completion of survey questionnaire.

Table 1: Means of factors

Factors	Number of respondents	Mean of factors	Standard deviation
Furniture	200	3.278	0.6905
Noise	200	3.560	0.6011
Temperature	200	3.120	0.7900
Lighting	200	3.430	0.6309
Spatial arrangements	200	3.860	0.4306

The factor that affects most on the productivity of employees is temperature of workplace, second factor that influences the productivity at high rate is office furniture. Artificial and natural temperature that is pleasant for humans, affects their productivity. Pleasant temperature directly affects the mood of employee and increases

Adopted fully structured questionnaire was used in order to collect primary data. In this questionnaire each variable of study contained four elements and on behalf of each element one question was part of this final questionnaire. Five point Likert scale was used and most of the question's scale varies from 1 (Strongly Disagree) to 5 (Strongly Agree). A very few were measure on 1 (Not at all) to 5 (Always).

3.1 Findings

For data analysis this study used descriptive statistics and correlation and regression analysis by implementing this analysis study find the rational results that are helpful to prove the study. Five major factors of office interior design (furniture, noise, temperature, lighting and spatial arrangements) are independent variables and productivity used as dependent variable. The analysis result explains in detail further part of data analysis section:

the efficiency of client dealing. In Pakistan office timing is from 9:00 AM to 5:00 PM as per information provided by the participants of study. Employees spend most time of their job on office furniture. So, the comfort ability of furniture directly influences the productivity. Both natural and artificial light also affect the performance of employees.

Dim light causes eye strain headache and irritation in working hours and affects overall work productivity of employees. Collected data evidencing that from participants 21.5

percent were females and 79.5 percent were male employees of telecom sector. Gender and employees productivity is discussed below:

Table 2: Gender response and productivity

Factor	Male respondent		Female respondent	
	Mean	S.D	Mean	S.D
Furniture	3.64	0.63	3.82	0.65
Noise	3.84	0.49	3.27	0.73
Temperature	3.36	0.85	3.31	0.57
Lighting	3.79	0.43	3.99	0.36
Spatial arrangement	3.50	0.62	3.19	0.69
Overall mean	3.67			
Overall productivity	3.65			

Above table explains the difference between gender perceptions about work place environment. Females give more importance to interior design as compared to male. Females are more concerned about furniture

comfort ability and lighting facilities. On other hand; Men are more concerned about the distortion during work and need better or favorable temperature at work place.

Table 3: Correlation between office interior design and productivity

Variable	Furniture	Noise	Temperature	Lighting	Spatial arrangement
Furniture	1.000				
Noise	0.201	1.000			
Temperature	0.530	0.219	1.000		
Lighting	0.577	0.347	0.790	1.000	
Spatial arrangement	0.679	0.473	0.459	0.670	1.000

r is Pearson correlation coefficient *Correlation is significant at the 0.05 level (2-tailed)

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

Correlation analysis shows that furniture is positively correlated with employee’s productivity and significance is 0.05. This shows that if office furniture is not comfortable, the employees’ productivity is affected. Positive relational association found between noise and productivity. The correlation coefficient (=0.459) at significant level 0.01.

Positive correlation found between temperature and productivity that shows that employees’ productivity highly correlated with temperature of offices. It means that correlation result revealed that lighting and spatial arrangements having significant positively correlate with employees’ productivity.

Table 4: Regression analysis

Model	R	R Square	Adjusted R square	Std. Error of the estimate
1	0.689 (a)	0.597	0.599	0.53525

R= Correlation coefficient

a). Predictors: (constant), furniture, noise, temperature, lighting, spatial arrangement

Model	Sum of square	Df	Mean square	F	Sig.
Regression	33.500	5	6.431	21.344	.000(a)
Residual	27.500	97	0.235		
Total	60.000	102			

df= degree of freedom, F=regression mean square/residual mean square ,Sig=P-value

a. Predictors: (Constant), Spatial arrangement, Noise, Furniture, Lighting, Temperature

b. Dependent Variable: Productivity

R square explains the coefficient of determinant that is 0.597. Study convert R square to percentage that is almost 60% and it explain that 60% variation is employees productivity is due to the variation in this model’s independent variables. Regression explains that if one unit changes in independent variable how much it causes change independent variables.

4. DISCUSSION

After analysis, study revealed that interior design of office has a considerable amount of impact on employee’s productivity. If office environment is good then employees can perform to good, can affect the overall output of employees. The different elements of conceptual framework have impact on productivity but furniture, temperature and light have greater impact on employee’s performance. Gender comparison shows that females are more concerned about the workplace environment instead of males. Males are more concerned about temperature of workplace and comfort ability of furniture, in comparison; females are more concerned

about noise, free work environment and flexible spatial arrangements.

4.1 Practical implication

Temperature, Furniture and lighting found considerable factors that affect the productivity of employees. So, study recommended that management has to give more attention to these interior parts of office to increase productivity and overall organizational performance. Although telecom sector is too much competitive market but organizations have to give more focused interest to the interior design of outlets because the comfort ability of front line staff leads towards increase in overall sales.

4.1 Limitations and future research

4.1.1 Limitations

- Small Sample size was taken from telecom sector of Sahiwal division due to lack of time and money.
- Sample was taken only from telecom sector of Sahiwal division.

- Only one method used to collect data from employees of telecom sector.

4.2 Future research

Increase sample size to generalize results. Sample can be taken from other cities of Pakistan. Such type of study can be done on other sector like public and semi government sector and can be compared with the results of this study. Apart from this, research can be conducted on manufacturing and non

manufacturing private concerns in Pakistan. Moreover, some other factors which can affect the productivity as independent variables can be included like colour, internal relation, privacy, outside view and presence of plants. Management commitment can be used as mediating variable. Data can be collected through other techniques like observation and interview and check findings.

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