

Factors Affecting the Productivity of Employees in Architectural Firms

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Abstract - There are several factors which affect the productivity of employees in architectural firms. It is observed that office spaces designed without thought process & analysis of space division in a building can severely distress the employees mentally and physically. The data was collected through a questionnaire survey which was carried out to explore the factors that need to be considered in the office design and how they affect the productivity of employees in architectural firms. The questionnaire was developed in such a way that it covered all the important factors which impact the employee's productivity. The collected data was analyzed using the SPSS software and M.S excel. The research suggests the important design factors that need to be considered for an office design so that the employees can have maximum productivity level in their work surrounding.

Keywords: Architectural firms, Employees, Productivity, Impact, Office, Output, Efficiency, Design Factors.

I. INTRODUCTION

An average employee in an architectural firm works up to 7 to 8 hours on the workstation constantly staring at the screen. With the advancement in technology, the architectural work now mainly revolves around software and computers. This is not considered to be an ideal work environment, there is less interaction between the employees and it affects the health and mind as well. This limits the sense of creativity and health concerns like eye fatigue, backache and depression arise. Constantly sitting in one place limits any sort of physical activity. The main design concern revolves around designing spaces which are constructive and making a comfortable zone having well lighting, ventilation and aesthetically pleasing elements for the architects that help them think out of the box and increase motivation and optimization in their output. A well-designed environment has impact on the mood and health; both the positively and poorly designed spaces have effect on the health. The factors that make an architectural office an inefficient design must be analyzed in order to provide a good work environment that improves productivity.

II. PROBLEM STATEMENT

An office with improper and faulty design would result in adverse effects on the human mind and health. Due to that the productivity of the employees would be less. It is observed that mostly offices are designed without considering human health and productivity thus the output and the health of the employees are set on stake. Improper design and planning of the space introduce hazards which make the workplace unsafe and decreases employees' productivity. Workplace requires an environment where the employee can do their work without interference. A viable workplace should give a conducive environment where the results can be accomplished easily. The physical aspects of working place directly affects the human senses, wellbeing, inspiration and hence productivity. This is because of the way that workplace's design affects productivity and fulfillment levels.

III. SCOPE AND LIMITATIONS

Factors to be considered which affects the productivity of the employees in architectural firms is following: ventilation, lighting, furniture, sound, interior visualization, landscaping, healthy work environment, planning and circulation.

IV. LITERATURE REVIEW

The nature of the workplace environment can essentially decide an employee's inspiration, resulting efficiency, and productivity. There is an association between the office environment and employee productivity. The social aspects of the workplace greatly affect efficiency along with the physical aspects. Employee fulfillment with the general workplace environment adds to increased efficiency.[1]

4.1 Furniture

Correct office furniture is fundamental for productivity of employees. Ergonomic chairs and standing desks is the main furniture in the offices. As well as having the legitimate office lighting, having the appropriate office furniture is additionally critical for decreasing stress and expanding productivity. The kind of office furniture utilized, the situation of office

furniture, and the sort of lighting in the working environment are extremely significant aspects that cooperate to impact employee’s proficiency. [2]

architects design offices for individuals to accommodate them with a good environment. For this, workplace for architects ought to responsive and obliging too.[5]

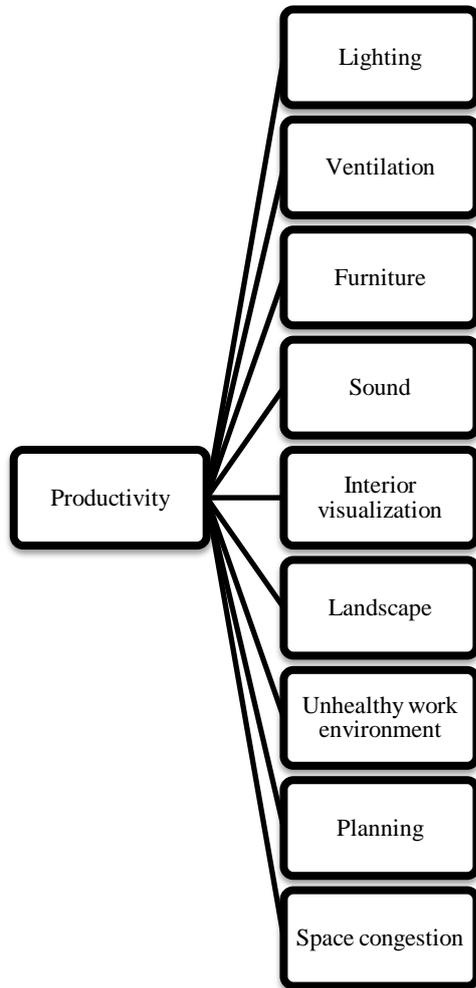


Figure 1: Factors to be considered in office design

4.2 Unhealthy work environment

Environment of the office does not only increase efficiency of employees but it is also important for the growth of the organization. Hence, an unhealthy work environment affects behaviors of the employees. [3]

4.3 Interior visualization

It is imperative to have a good interior visualization in the office where employees are working so that a significant outcome is achieved. This will help the architect in designing projects with more functionality and suitable environment for the customers. [4]

4.4 Planning

A productive workplace in an architectural firm is however significant as it seems to be other offices; it is given that

4.5 Sound

There is a relationship among noise and employee’s performance. There is a lot of debate regarding how the length of time an employee works with a noise condition influences their performance. Noise exasperates workers the more they are exposed to it, in spite of the fact that others argue that inhabitants just become used to their acoustic condition. [6]

4.6 Ventilation

The efficiency of office work will reduce by 6 to 9 percent if the quality of air is poor. The negative impact of indoor environment on performance is followed by negative impact on general symptoms including headaches and concentration. These negative effects are due to poor ventilation and results in reduced productivity in the office. [7]

4.7 Landscape

Plants help in constructing a friendly working atmosphere, which ensures higher productivity. When plants are acquainted with the workplace, experts have recognized different benefits, including upgraded representative assurance, expanded efficiency, and diminished truancy. Employees can enjoy a better quality because of the further developed working climate given inside office. [8]

V. METHODOLOGY

In the survey, the information regarding the factors affecting the productivity of employees working in architectural firms has been collected through questionnaire from the employees working in architectural firms located in Hyderabad. Subjective data collection strategy is utilized to notice the factors influencing the usefulness of employees.

5.1 Questionnaire Survey

A questionnaire is a kind of examination method that comprises of a series of questions or different sorts of prompts intended to inspire data from a respondent. A questionnaire is regularly made out of both close ended and open ended questions. Long-structure questions permit the respondent to expand on their contemplations. Questionnaires can be a more cost-effective and time-efficient method of estimating the behavior, perspectives, inclinations, opinions, and expectations of a generally enormous number of subjects than different methods.

VI. FINDINGS

Table 1: Statistical data of main factors, factors and sub factors regarding the questions asked from the respondents in the questionnaire

Main Factors	Factors	Sub factors	Yes %	No %
Physical Factors	Lighting	Well lighted	25.7	74.3
	Ventilation	Artificially ventilated	80	20
		Naturally ventilated	18	82
	Furniture	Non comfort	94	5.7
	Sound	Sound proof	8.5	91
Mechanical noise pollution		74	26	
Mental Factors	Interior Visualization	Design by Architect/I. D	68.6	31.4
		Existing space setup	17.1	82.9
	Landscaping	Outdoor	0	100
		Indoor	11.4	88.6
	Unhealthy work environment	Leave	84	12.8
		Workload stress	74	26
		Overburdened	94	5.7
		Deadline	97	3
	Proper space planning	Bonus	2.9	97.1
		Separate prayer area	14.3	85.7
		Separate lavatories	17.1	82.9
	Space congestion	Lunch room	14.3	85.7
		Meeting room	68.6	31.4
	Proper circulation	34.3	65.7	

Table 1 shows the following data collected through questionnaire survey from the respondents with 74.30% it is found that the spaces are not well lighted. With 80% it is found that firms are artificially ventilated. However, the results show 18% of employees has responded to having their firms to be naturally ventilated. With the maximum weightage score of 94% employees find the furniture at their firm uncomfortable and causing them physical distress which affects their productivity rate. Noise can cause distraction while working on the daily tasks, which results in reduced productivity, errors in tasks and stress. With weightage score of 91% it was concluded that the firms are not soundproof and 74% of weightage score shows that employees suffer from noise pollution at their firms. With maximum weightage score 68.6% people responded that their office is not designed by an architect or interior designer. And with maximum weightage score of 82.90% employees stated that the office was set up in an already existing space. From the questionnaire survey it was found that employees stated there is no outdoor landscaping in their firm the results show 0% of outdoor landscaping. Whereas 11.40% stated that there is some indoor landscaping elements in their firm. 74% of employees stated

that they suffered from stress due to unhealthy work environment and 94% of employees feel burdened by the workload which affects their output levels. 97% of employees face urgent deadlines at the firms without bonus which in results affects their health resulting in lower productivity levels. 85.70% of the employees stated that there is no provision of separate prayer area for male and female at their firm. 82.90% of the employees stated that there is no provision of separate lavatories for male and female at their firm. 85.70% there is no provision of lunchroom for employees hence no functional spaces for the employees. With maximum score weightage of 65.70% it was concluded that there is no proper circulation existing in the architectural firms.

VII. CONCLUSION

This research paper aims to point out important factors in an office design and their impact on employees. Several factors were investigated thoroughly and the research resulted into the factors that need to be considered for an office design so that the employees can have user-friendly environment. It is found that if the office has good environment for the

employees, it will improve their morale and performance. The office must be clean, noiseless, well lighted and have a proper air ventilation. By having all these factors, employees will feel a sense of belonging and it will motivate them to work effectively. Having a good physical working place makes the employees spend more time in their offices and do not find excuses to remain absent or take an early off from work. Good working environment uplifts individual output and leads to the growth of the organization. In order to progress, every organization should provide their employees a good environment to motivate their workers to achieve set objectives of the organization.

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