



The impact of workspace design on office managers/secretaries satisfaction and productivity: A case study of federal polytechnic kaura namoda, Zamfara State

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Abstract

The workplace entails an environment in which office manager performs his work where results can be achieved as expected by management. Nowadays, workspace design is one of the most critical factors for employee's productivity. Today's workplace is different, diverse and constantly changing. Issues related to the workspace design are significantly neglected in organizations. The paper reviews the literature from the office environment perspective. This approach enables the researcher to give a better understanding of the social context of offices. The literature review establishes the need to link office professional's productivity with the office environment. The main purpose of this research is to study the effect of workspace design on office managers/secretary's satisfaction and productivity in Fptknd, Zamafara state. The target respondents of this study include OTM department, in FPTKND as less care is given to them and more attention is given to administrative block in the polytechnic. A structured survey was distributed among the departments. The results of this study provide important evidence of the impact of the physical work environment on office managers satisfaction and productivity. The findings revealed that the most satisfied and most productive office managers at FPTPKND are those who have the highest level of favorable physical work environment. Results demonstrated that employees believe that effective workspace design will enhance their productivity.

Keywords: employees' productivity, infrastructural facilities, environment, office productivity, office layout

1. Introduction

Today people spend more time in their offices or workplaces than in their homes. It is therefore of great essence to note that the structure, shape and design of an office impacts wholly on productivity, as such the physical office environment must be given the needed and appropriate attention. Today, one of the most important factor for keeping office manager satisfied is workspace environment. The environment where office manager performs his work is called as workspace (Manu, 2016) ^[18] and it directly influences the employee's productivity. The term used for the place where workers work is called as workspace design (Roelofsen, 2002) ^[22]. It consists of office, surroundings cubicle, site of workplace or the mixture of all of them and can be termed hostile, friendly positive, negative, etc. It is quite obvious that the efficiency of the employees is enhanced worldwide in the institutions or organisations where the workspace design is friendly.

Several researches like (Chandrasekar 2011; Leblebici 2012) ^[5, 17], etc., have established that the workspace design enormously affects the competency of the workers in an organisation. Some researchers (e.g., Roelofsen, 2002) ^[22] have also commented that the workspace design may also cause stress of the employees, e.g., job of police department is normally viewed as stressful job and the workspace design may also affects the efficiency of their performance (He *et al.*, 2002). Better workspace design leads to better outcome and increased productivity. Healthy physical space design improves the productivity of the employees by enhancing their efficiency. Multiple research works concluded that the factors such as congestion at work place and the physical space design contribute a lot in reducing employees' productivity

(Samani, 2015) ^[24]. However, no such studies have been reported for OTM department in polytechnic Kaura Namoda. This research study is an attempt to understand the impact of workspace design on office managers/secretaries satisfaction and productivity.

Provision of a suitable physical office environment may contribute positively to the productivity of the organization by maximizing efficiency, effectiveness, motivation, and also decrease absenteeism. Generally a suitable physical office environment or accommodation should consider the choice of location of building and office equipment, size, and office layout. Also factors such as ventilation, lighting, places of convenience, space for future expansion, and availability of required staff, among others, are to be considered.

2. Literature Review

According (McCoy & Evans, 2005) ^[19], an organization's workspace, the physical environment an organization provides for its employees to carry out their work activities, constitutes the second largest financial overhead after human resources for most organizations. Physical workplace environment as expressed by Leblebici (2012) ^[17] is the layout of office space which mostly comprises of furniture and spatial arrangements (Informal meeting areas, formal meeting areas, quiet areas, privacy, personal storage, general storage, work area desk and circulation space), and comfort level which entails ventilation, heating, natural lighting, artificial lighting, decor, cleanliness, overall comfort, and physical security. Haynes (2008) ^[13] similarly acknowledges the physical office environment as physical

conditions (Temperature, Light, Noise, air quality etc) Space (Plan, Layout, Privacy), Ergonomics (Workstation, Controls), and Aesthetics (Colour, Quality). The conceptual framework of this review shall be on the office lighting, noise, spatial arrangement, temperature, colour and productivity.

According to Yawson (2016), an office is a room, place or part of a building specifically set aside for the performance of clerical duties. N. Kamarulzaman *et al.* (2011) identifies that the common understanding of an office building as a work place include filing, planning, designing, supervising, analyzing, deciding and communicating. Office buildings are developed from the need to plan, co-ordinate and administer these activities. A number of studies on work environment have revealed that office managers are remarkably satisfied with some specific workspace features. These features are necessary for enhancing productivity of office managers. These features include lighting, ventilation rates, access to natural light and acoustic environment (Humphries, 2005) ^[15]. Employee's health is positively affected by lighting and comfortable furniture (Dilani, 2004) and thus on productivity.

Kinyili, *et al.* (2015) ^[16] in a survey reported that workspace quality influence the behaviour of employees, it is believed by nine out of ten workers increases their productivity. Chandrasekar (2011) ^[5] also confirm that insecure and detrimental workplace environment in terms of improper lighting, poor ventilation, extreme noise, etc. affect workers health and productivity. Hameed and Amjad (2009) ^[12] in a survey of 31 bank branches showed that relaxed and ergonomic office design stimulate the employees and increased their performance significantly.

With reference to work space, design and layout, Vischer (2008) ^[27] clarified that individuals have their own personal space when violated; lead them to feel crowded and uncomfortable. Thus, when infringements on personal space intrinsic to the open-plan design exceed employees' comfort levels, feelings of crowdedness and loss of privacy are likely to emerge. These feelings of crowdedness and loss of privacy then result in the dissatisfaction and negative reactions displayed by employees working in open plan workspaces. Brown (2013) ^[4] clarified that work space design and the spaces between equipment and furniture have a direct impact on the employees' satisfaction. The existence of many employees in a small space with office furniture and equipment leads to discomfort. Additionally, there is an advantage of the open space offices as they lead to the ease of information transformation among the employees and give the space for organizing offices and equipment relatively.

2.1 Productivity

Productivity can be defined as the state or quality of being productive. Productivity is an average measure of the efficiency of production. It can be expressed as the ratio of output to inputs used in the production process, i.e. output per unit of input. (Wikipedia). Productivity is thus of fundamental importance to the individual worker of whatever status, to the organization whether commercial or not and to the national economy at large and accordingly therefore, to the upliftment of the welfare of the citizen and the reduction if not total eradication of mass poverty (Akinyele, 2007) ^[3]. Productivity in an organization can, in principle, be influenced by a wide range of internal and external variables, which may be categorized as:

- General factors: Among which are climate, geographic distribution of raw materials, fiscal and credit policies, adequacy of public utilities and infrastructural facilities, etc.
- Organizational and Technical factors: Namely, the degree of integration, percentage of capacity, size and stability of production, etc.
- Human factors: Which include labour- management relations, social and psychological conditions of work, wage incentives, physical fatigue, trade union practices, etc.

Productivity implies reaching the highest level of performance with the least expenditure of resources.

2.2 How office environment affects office managers / secretaries satisfaction and productivity

Studies have shown over and over again that the office environment has a measurable impact on employee satisfaction and productivity. The 2016 Gensler Workplace Survey even found that aspects of the physical workspace drive not only productivity but innovation as well.

1. Color

Let's face it most offices are drab. The standard wall palette ranges from eggshell to ecru, maybe with a hint of gray thrown in for good measure. While you don't want to go crazy painting every wall traffic-cone orange, bringing a little color into your space can make a big difference in how your employees feel about coming to work every day. Aiming to create a sense of calm? go with shades of blue and green. Need to stoke creativity? An optimistic yellow might be in order.

2. Lighting

A particular problem in the case of cubicle-centric workplaces is the abundance of artificial light. Spending eight hours a day being bathed in fluorescent light, far from any windows, is a recipe for depression and listlessness. And, as it turns out, the effects extend far beyond the office. Studies have shown that lack of natural light exposure in office environments can lead to employees suffering from abnormal sleep activity. Lack of exposure to sunlight disturbs the body's circadian rhythms and can result in a workforce that is perpetually tired and sluggish.

3. Noise

Working in a communal space ensures that, unfortunately, complete silence is a rare occurrence. While some employees are affected more strongly by the presence of background noise studies show that introverts suffer more ill effects than extroverts, for instance the simple reality is that a noisy work environment leads to an overall decline in productivity. Popping on headphones to listen to music doesn't totally mitigate this, as even that has been shown to impair mental acuity. Possible fixes for noise issues could include providing noise canceling headphones to your employees, installing white noise machines around the office, or instituting and enforcing daily quiet hours.

4. Privacy

Open-office floor plans have been all the rage for years now. The initial thought behind them was that they would remove the feeling of separation between management and staff and encourage a more dynamic and collaborative work environment. While those benefits can certainly arise from

implementing an open floor plan, the unavoidable reality is that they create a distinct lack of privacy. This absence of personal space not only interrupts employees' focus, but can also make them feel like they're constantly being monitored by management. The best way to address these privacy concerns leads us to our final factor.

5. Flexibility

The best way to achieve harmony in your office space is really to create multiple spaces in one. A block of cubicles won't fit everyone's work style, nor will a totally open floor plan. Giving your staff a variety of spaces in which to move throughout their workday, depending on their needs, will show them that you're paying attention to how the environment affects them and responding to that. Building open collaboration areas along with cubicles, conference rooms, co-working spaces and social areas means your employees can tailor their physical surroundings to the job they need to do in that moment, providing cognitive support and giving them the tools to always do their best work.

2.3 Employee's satisfaction and productivity

According to McGuire and McLarin (2009) job satisfaction is often determined by how well the outcome meet or exceed expectations and it represents several related attitudes such as work itself, pay, promotion opportunities, supervision and coworkers which are most important characteristics of a job to which people have effective response. Dissatisfied employees are more likely to quit their jobs or be absent than satisfied employees (Giannikis and Mihail, 2011) ^[10]. On other hand, Employees' satisfaction is extremely important in the work place as it influences an organization's success and performance by improving morale. This, in turn, reduces staff turnover (Thompson and Phua, 2012). The interior design of the workspace affects directly the distribution of the offices and equipment that leads to the employees' satisfaction. This also affect the absent days count and positively leads employees to stay stable at their work positions without resignation due to their job satisfaction and hence their productivity will increase (Ruchi and Surindr, 2014).

Employees' productivity and their satisfaction from their work environment are positively related. The higher the employees' satisfaction is, the more productive they will be. Equipment organization, proper lighting, cheerful colors and proper temperature level are all essential factors that improve productivity (Edmans, Alex, Lucius, and Chendi, 2014). Based on the above mentioned, the hypotheses can be stated as:-

H1: There is a positive relationship between the workspace environment and office managers satisfaction

H2: There is a positive relationship between the work space environment and office managers productivity

3. Methods and Materials

This was a quantitative study and questionnaire based survey technique was adopted to gather the data. Data was collected using simple random sampling technique from various department in Federal Polytechnic Kaura Namoda. The population of the study was the office managers and admin staff in Federal Polytechnic, Kaura Namoda. Out of 298 questionnaires, 250 questionnaires were filled completely and

considered for data analysis. The response rate remained 83%. The reliability of each construct was examined with Cronbach's alpha. All the values are above the threshold value 0.7.

4. Results and Discussion

4.1 Reliability test

All values of Cronbach's alpha for constructs were considerably indicating that the reliability of all constructs used in this study was supported as shown in table 1. Cronbach's alpha was applied to measure reliability which ranged from 0.799 to 0.822. Total questionnaire Cronbach alpha was 0.806, and the reliability alpha for all studied items indicated a satisfactory level as they were well above the expected level of 0.70.

Table 1: Reliability and validity statistics for all study variables. Item Cronbach's alpha

The physical work environment	0.815
Employees` satisfaction	0.822
Employees` productivity	0.799
Total questionnaire	0.806

4.2 Data analysis and discussion of office managers/ secretaries satisfaction

This part provides the result of employees' responses regarding office managers satisfaction.

44.8% of the office managers showed that they are somewhat satisfied with their physical work environment while, 29.3% of the office managers are extremely satisfied with workspace design, and also, 18% of office managers are neutral while, 7.9% of office managers are extremely dissatisfied. In order to determine the relationships among study variables, the correlation coefficient was interpreted in terms of its statistical significance to p-values (probabilities of relationships). When the p-value is (< 0.05), a significance variance exists, as if the p-value gets close to 0 the significance variance becomes stronger, but when the p-value is (> 0.05) this means that no significance variances exist (Gall and Borg 2003; Tajik and Ghomri, 2009) ^[8-25].

There is a significant correlation between the two variables based on a record of 0.661 $P=0.001$, hence, hypothesis H1, is supported. It has already been supported by the literature review, (Vischer, 2008) ^[27], office managers have their own personal space when violated; lead them to feel crowded and uncomfortable. Thus, when infringements on personal space intrinsic to the open-plan design exceed office managers comfort levels, feelings of crowdedness and loss of privacy are likely to emerge. These feelings of crowdedness and loss of privacy then result in the dissatisfaction and negative reactions displayed by employees working in open plan workspace.

4.3. Data analysis and discussion of office managers productivity

Regarding the analysis of findings, it was shown that the general attitude for respondents to evaluate employees' productivity was high productivity with frequency of 261 with a percentage of 52.7%, followed by a frequency of 131 with a percentage of 26.%(too high productivity) followed by a frequency of 82 with a percentage of 16.6% (moderate). Followed by a frequency of 21 with a percentage of 4.2% (low productivity) and finally a

frequency of 0 with a percentage of 0.0% (low productivity). In addition, there is a significant correlation between the two variables based on a record of. 617 $P=0.001$ that makes the second hypothesis (H2) accepted. This result is in line with other authors and they said that noise is the most disturbing factor of indoor environment in open offices (Haapakan, 2008) ^[11].

5. Conclusion and Implications

Workspace environment plays a vital role in motivating employees to perform their assigned work. The workspace design environment can play an important role in office managers satisfaction and productivity within the workplace. A positive effect has useful results to both Federal Polytechnic Kaura Namoda and office managers. If office managers satisfaction increased, productivity would increase, and if work environment has a negative effect it would affect the office managers satisfaction negatively, which leads to lower the productivity. The results of this study have significant improvement and developing physical work environment in the federal polytechnic Kaura Namoda. These implications can be introduced to the academia, office managers, and to further researching efforts. The findings have also suggested that management to redesign workspace between offices or equipment and spread equipment to make sufficient spaces to increase office managers satisfaction and productivity.

5.1 Limitation and suggestions for future research

The present study was conducted using survey research only in Federal Polytechnic Kaura Namoda. Further research can enlarge the sample size to investigate the impact of physical work environment on other employees' satisfaction and productivity at the polytechnic or make comparison between office managers and other employees at the institution. Moreover, further research can use other variables rather than office managers satisfaction, and productivity like employees' turnover, morale, trust and health to understand the effects of physical work environment on other factors, which can affect the work environment.

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