

Influence of Office Layout on Academic Staff Performance in Covenant University, Ota

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Previous research has indicated that it is critical to regularly monitor academic staff performance in higher educational institutions. This is because it has an inevitable and continuous impact on both organisational and student academic performance. Taking this into consideration, this study, with a focus on the academic staff of Covenant University, Ota, Ogun State, Nigeria, evaluated the influence of office layout on staff performance. The objectives of the study were to investigate staff perception of office layout, examine factors influencing staff performance in an office, and establish the nature of the relationship between office layout and staff performance. One hundred questionnaires were randomly administered to academic staff at the university, and a response rate of 60% was obtained. It was discovered that the academic staff perceived all the ten office layout elements presented to them to be "good". The results also showed that office layout (mean=4.68), reliable internet (mean=4.55) and office furniture (mean=4.40) are among the crucial factors influencing academic staff performance. Finally, the study revealed that office layout has a significant impact on performance. It was recommended, among other things, that the Management of the institution should improve on office layout in order to enhance performance. These findings imply that if the Management of the University is desirous of keeping staff performance high, it must grasp the key factors influencing their performance. In order to achieve the desired performance levels, it is necessary for the management to understand what to do to effectively bring about those levels.

Keywords: Academic, Covenant, Layout, Office, Performance, Staff, University

INTRODUCTION

Decades earlier, when all the leverage was in the hands of employers, no attention was given to the employee experience in office spaces. Employers just had to list a job and offer a location for the activity to be carried out. There was no emphasis on enthusiasm, encouragement, the creation of attractive places of work, and the use of technology, among others. Only recently has each of these items become a mainstream topic of conversation (Borghero, 2019). A quality workplace design is now a vital element for a less hectic and more constructive environment. It has become a necessity for employers to take the physical workplace

into consideration. To be more effective, workers need to feel relaxed and calm in the workplace environment (Power, 2016). Where there is a suitable office environment, the likelihood of malingering reduces, consequently resulting in increased employee morale, which contributes to improved establishment efficiency (Freedman, 2022).

The work environment plays a vital function in the performance of employees. It is argued that workplace conditions have a huge influence on employees' productivity, be it towards adverse or favourable effects (Chandrasekar, 2011). High-quality architecture of the

workplace leads to a lesser amount of tension and a more productive ambience. Employers must take the workplace setting of their workers into consideration. Personnel feel the need to be relaxed and tranquil in their workplace to deliver their finest work (Kohll, 2019). Organisations presumed that a functional space for work would suffice and failed to recognise that it is vital to design a workplace that is both functional and attractive (Morgan, 2015). With money no longer being the primary factor motivating workers, a focus on employee productivity is the most valuable competitive advantage that businesses can build on (Uzonna, 2013; Bawa, 2017). Hence, organisations are striving to improve the workplace as a way to increase the performance of their employees.

In view of this, several research efforts were directed towards office conditions and employee performance. For instance, Bushiri (2014) carried out an investigation on the influence of the workplace on the efficiency of workers at the Institute of Finance Management in Dar Es Salaam, Tanzania. The author discovered that the work environment has an impact on employees' performance. In India, Sehgal (2012) examined the link between the work environment and productivity and concluded that furnishings, noise, temperature, lighting, and physical arrangement have a significant effect on worker productivity. Another study by Sultan *et al.* (2016) examined the effects of the design of an office on the efficiency of staff, using Islamic Bank of Karachi, Pakistan, as their case study. The authors confirmed that easy communication within the banking departments, office equipment and furniture are the variables of office design impacting on employee productivity.

Also, a few studies were also carried out in Nigeria. The work of Duru and Shimawua (2017) investigated the environmental impact that leads to low productivity of employees at Edo City

Transport Service, Benin City. According to them, a properly arranged, well-lit and ventilated, noiseless and neat office is important for employee productivity. Another study by Obamiro and Kumolu-Johnson (2019) investigated the link between the workplace and employee performance at Intercontinental Distillers Limited and observed that a clear link exists between the physical workplace and worker satisfaction. Also, employee productivity is influenced by the work environment. Salau *et al.* (2020) writing on the effect of working conditions on academic staff retention at public universities in Southern Nigeria, revealed that promotions have an impact on staff retention. Obiora-Okafo and Imhanrenialena (2022) looked into how the organisational environment influences employee behaviour. The study concluded that external factors (such as politics, the economy, society, and the law) have a negative and insignificant impact on employee productivity and organizational effectiveness.

From the above, it is obvious that many studies have focused on establishing the link between office conditions and staff performance. Nevertheless, it is critical to regularly monitor academic staff performance in higher educational institutions (Akpan, 2013; Oladejo, 2022). Therefore, more of such studies - in academic institutions in particular - are a necessity. Also, because the perception of the particular factors of office layout that contribute to staff performance might vary across institutions, the more organisations studied, the better. Therefore, more universities need to be researched. This study will contribute to the compendium of knowledge by evaluating the influence of office layout on academic staff performance at Covenant University, Ota.

LITERATURE REVIEW

Concept of Office Layout

Office layout can be construed to be the systematic planning of office space and

the arrangement of furniture and other physical facilities. The goals of office layout are space utilization, facilitating workflow, and minimizing risk (Poudel, 2012). It is the arrangement of furniture, supplies, equipment, procedures, and things necessary for the work to be done in a reasonable manner within the

available space to achieve maximum performance (Reddy, 2013). The layout of an office is designed to help ensure smooth working performance for official purposes (Catalano, 2018). Table 1 gives detailed summary of some researchers on the physical features/requirements for a good office layout.

Table 1: Physical Features of Office Layout

S/N	Author(s)	Physical Features of Office Layout
1	Vischer (2007)	Essential physical work environment factors include furniture, lighting (both artificial and natural), spatial layouts, and noise
2	Khan <i>et al.</i> (2011)	The aspects of the physical work environment that can affect workers' performance include temperature, noise, furniture, ventilation and heating lighting (both artificial and natural), comfort level, internal and external office layout, and workplace spatial layouts
3	Leblebici (2012)	Decor, heating, natural lighting, cleanliness, artificial lighting, overall comfort, ventilation and physical security
4	Haynes <i>et al.</i> (2017)	Air quality, lighting, cleanliness, physical comfort, temperature and, colours and textures
5	Sander <i>et al.</i> (2019)	Light and view, noise, temperature, furniture and the arrangement of space and natural factors
6	AirFixture (2019)	The requirements for a good office layout include location and accessibility, acoustic quality, light quality, thermal comfort, and environmental sustainability, among others
7	Amin and Chakraborty (2021)	Noise, furniture and equipment designs, temperature, lighting, sanitation and ventilation and air quality

Factors Influencing Staff Performance

The performance of any organisation is dependent on the aggregate of output of its individual employees. This is because employee performance is the backbone of any organisation's overall performance (Nadeem & Ahmad, 2017). Gibson (2019)

added that comfortable workplace conditions foster increased employee productivity and, by extension, revenue growth.

Based on this reasoning, researchers have been able to identify factors influencing staff performance as shown in Table 2.

Table 2: Factors Influencing Staff Performance

S/N	Author(s)	Factors
1	Seghal (2012); Kasule (2015); Al-Omari and Okasheh (2017); Vaughan (2018); Sander <i>et al.</i> (2019)	Office layout
2	Grodzinsky and Gumbus (2006); Dozier (2015)	Availability of reliable internet
3	Kasule (2015); Tanedo (2018); Gibson (2019); Amin and Chakraborty (2021)	Office furniture
4	Seghal (2012); Al-Omari and Okasheh (2017); Vaughan (2018); Tanedo (2018); Gibson (2019); Amin and Chakraborty (2021)	Visual comfort
5	Al-Omari and Okasheh (2017); Amin and Chakraborty (2021)	Air quality and ventilation
6	Seghal (2012); Bushiri (2014); Al-Omari and Okasheh (2017); Gibson (2019); Amin and Chakraborty (2021)	Acoustic comfort
7	Seghal (2012); Al-Omari and Okasheh (2017); Tanedo (2018); Amin and Chakraborty (2021)	Thermal comfort
8	Tanedo (2018); Gibson (2019)	Office décor
9	Gibson (2019); Amin and Chakraborty (2021)	Office equipment/workstations

Empirical Studies

Cato and Gordon (2009) stated that a company’s success depends principally on the productivity of its employees. Thus, a company’s utmost focus should be on productivity. Hameed and Amjad (2009) conducted a survey on the significance of office design on the basis of employee preference. This revealed that 31 percent of all study respondents were happy with their employment due to an attractive work environment, while 50 percent favoured those organizations that have a friendly workplace. In the opinion of Naharudding and Sadegi (2013), companies are seeking to provide a positive workplace environment because it not only improves employee morale but has also become a major reason for productivity growth at an operational level. Bárcenas (2020) added that employee efficiency (sometimes referred to as productivity of the workforce) is an evaluation of the effectiveness of an employee or group of employees. According to the author, productivity is measured at a particular point in time in terms of an employee’s performance.

Based on the above reasoning, it is important to look at the outcomes of various studies on the relationship between office layout and staff productivity or performance as they relate to this current one. For example, Salah (2010) conducted a study to determine the effect of workplace design on the efficiency of employees at the Administrative building in the University of Gaza. The outcome showed that office design impacted on employee performance in the Administrative building. In Pakistan, Parveen *et al.* (2012) ascertained the impact of office facilities and work environment on the performance of employees at Sargohda University. It was discovered that the work environment affects employee productivity. The study of Seghal (2012) in India determined the relationship between office design and staff efficiency. The study established that furnishings, noise, temperature, lighting, and physical arrangement had a significant effect on worker productivity.

A further research in India by Sarode and Shirsath (2014) described the elements of work environment impacting on employee

productivity. According to the authors, work environment factors such as air quality, noise, lighting, and colour have a significant impact on employee productivity. Kasule (2015) carried out a study to establish the impact of the prevalent work environment on academic staff job performance in a Ugandan public university. The study concluded that academic staff's job performance is substantially influenced by their work environment. The work of Otterbring *et al.* (2017) ascertained the relationship between different office types, ease of contact with colleagues; convenience, and job satisfaction of staff and employees in Sweden. The results showed that staff working in open-plan offices documented higher levels of satisfaction than staff working in cellular or shared-room offices, owing to the ease of contact with colleagues.

In Jordan, Al-Omari and Okasheh (2017) focused on how the work environment affects job performance. The outcome confirmed that office furniture, light, ventilation and noise are the major work environment conditions that affect productivity. Salau *et al.* (2020) investigated how work environments affect academic staff retention at public universities in southern Nigeria. The findings showed that promotions were granted based on favouritism and 'godfatherism'. The paper also revealed that compensation has a substantial impact on staff retention. Another study in Nigeria by Obiora-Okafo and Imhanrenialena (2022) focused on the impact of organisational environment on workers' behaviour in the University of Nigeria, Enugu Campus. The outcome showed that external factors (factors that are external to the organisation, including those related to politics, the economy, society, and the law) have a negative and insignificant impact on employee productivity and organizational effectiveness, and that employee

competence is strongly influenced by culture.

The study of Oladejo (2022) at the factors that influence academic staff job performance at the University of Lagos in Nigeria. The research found that a significant relationship exists between academic staff job effectiveness and each of the studied determinants, namely job satisfaction, staff motivation, employee engagement and workplace environment. Alemu (2022) studied how the workplace environment affects the performance of staff at the Wollo University. The study found that all workplace environment factors had a positive linear relationship with work place performance at the university. Work life balance and reward for employees were also found to have strong linear associations with workplace performance.

From the summary of literature, it is clear that studies on the link between office layout and staff performance have received global attention. However, none of the earlier studies have holistically looked at the factors investigated in this current one. Hence, it is necessary to ascertain if these factors still influence academic staff performance.

RESEARCH METHODOLOGY

Sampling Procedure

This study surveyed the academic staff of the institution; 100 academic staff were purposively sampled. The academic staff considered in this study were those with a minimum of Master of Science (MSc) Degree. This was because they were expected to have adequate experience to provide quality information that will assist in achieving the objectives of the study. There are 4 colleges in the university i.e. College of Business and Social Sciences (C.B.S.S.), College of Leadership Development Studies (C.L.D.S.), College of Engineering (C.O.E.) and College of Science and Technology (C.S.T.). Hence, the researchers randomly sampled twenty-five academic staff from each of the

colleges. The list of the selected staff and their email addresses were obtained from the college officers of each of the colleges. An e-questionnaire was sent via e-mail to the participants to collect the information needed for the investigation. The structured e-questionnaire was used primarily to improve answer consistency. The questionnaire's items were graded on a 5-point Likert scale that ranged from poor (1) to excellent (5) and Strongly Disagree (1) to Strongly Agree (5). From the 100 e-questionnaires, a 60% response rate was attained. Percentages were utilised to present the demographic information on the respondents. The mean was used to show staff perception of their office layout as well as the factors influencing their performance. The mean result was interpreted following the suggestion of Morenikeji (2006). In addition, Pearson Correlation was used to establish the nature of the relationship between office layout and staff performance. The outcomes of the analyses are displayed in tables.

RESULTS AND DISCUSSION

Demographic Distribution of the Academic Staff

This segment of the e-questionnaire focused on the bio-data of the academic staff. They were asked questions relating to their colleges, gender, age, length of service at the university and their highest academic qualifications. The responses revealed the background of the respondents. Table 3 shows the analysis. The analysis in Table 3 shows that the majority of the participants are from C.S.T and C.B.S.S (65%), they are male (52%), fall between the ages of 30-49 years (83%) and have worked for 6 years and above (72%). With regards to their academic qualifications, 93% of them are PhD holders. From the background information on the length of service in the institution and the staff qualification, it can be concluded that the respondents have adequate experience to provide substantial information which will aid the achievement of the objectives of the study.

Table 3: Demographic Distribution of the Academic Staff

Parameter	Sub-division	Frequency Count	Percentage Distribution (%)
Colleges of Respondent	C.B.S.S	15	25
	C.L.D.S	10	17
	C.S.T	24	40
	C.O.E	11	18
Gender	Male	31	52
	Female	29	48
Age	20-29 years	0	0
	30-39 years	20	33
	40-49 years	30	50
	50 years and above	10	17
Length of service in the institution	0-1 year	0	0
	2-3 years	3	5
	4-5 years	14	23
	6 years and above	43	72
Highest Academic Qualification	MSc	4	7
	PhD	56	93

Staff Perception of Office Layout

The participants were asked to indicate their perception of their office layout. To show their responses, the researchers assigned 5 to “Excellent”, 4 to “Very Good”, 3 to “Good”, 2 to “Fair”, and 1 to “Poor” to arrive at the mean. Responses from the e-questionnaires are shown in Table 4.

The staff ranked the general level of comfort as 1st (mean=3.31), thermal comfort as 2nd (mean=3.28), office spatial arrangement as 3rd (mean=3.26), air

quality and ventilation, and natural and artificial lighting as 4th (each with a mean of 3.23). Other factors that rated 6th, 7th, 8th, 9th and 10th are office size (mean=3.16), state of office furniture (mean=3.15), office décor (mean=2.86), finishing (mean=2.66), and equipment (mean=2.58) respectively. The outcome shows that all the variables are rated as “good”. On a general note, the staff affirmed that their offices were generally comfortable.

Table 4: Staff Perception of Office Layout

Office Layout Elements	1	2	3	4	5	Mean	Rank	Remark
General level of comfort	5	5	20	26	4	3.31	1 st	Good
Thermal comfort	4	9	17	26	4	3.28	2 nd	Good
Office spatial arrangement	4	15	6	31	4	3.26	3 rd	Good
Natural and artificial lighting	13	1	17	17	12	3.23	4 th	Good
Air quality and ventilation	4	9	18	27	2	3.23	4 th	Good
Size of office	5	17	5	29	4	3.16	6 th	Good
State of office furniture	5	12	12	31	0	3.15	7 th	Good
Office décor	8	18	16	10	8	2.86	8 th	Good
Office finishing	5	24	17	14	0	2.66	9 th	Good
State of office equipment	5	23	24	8	0	2.58	10 th	Good

Note: 1.0 – 1.49 = Poor, 1.50 – 2.49 = Fair, 2.50 – 3.49 = Good, 3.50 – 4.49 = Very good, and ≥ 4.50 = Excellent

Office Conditions Influencing Staff Performance

To accomplish the 2nd objective of this research, which is to evaluate the variables influencing academic staff performance, the researchers used a 5-point Likert scale that ranged from Strongly Disagree (1) to Strongly Agree (5).

The analysis in Table 5 shows that the respondents strongly agree that office layout (mean=4.68) and reliable internet (mean=4.55) are crucial to academic staff performance. They also agree that office furniture (mean=4.40), equipment/workstation (mean=3.85), air quality and ventilation (mean=3.85), visual comfort (mean=3.67) and thermal

comfort (mean=3.53) are pertinent to staff performance. However, they disagree that acoustic comfort (mean=3.21) is essential to academic staff performance; while they are undecided that office décor (mean=1.98) is essential. The implication of these outcomes is that office layout, internet, office furniture, equipment/workstation, air quality and ventilation, visual comfort (natural and artificial lighting) and thermal comfort are all important factors that can enhance academic staff performance. It is noteworthy that the studies of Dozier (2015), Sander *et al.* (2019) and Amin and Chakraborty (2021) also made this conclusion.

Table 5: Office Conditions Influencing Staff Performance

Office Conditions	1	2	3	4	5	Mean	Rank	Remark
Office layout	0	0	0	19	41	4.68	1 st	SA
Reliable internet	0	0	3	21	36	4.55	2 nd	SA
Furniture	0	0	3	30	27	4.40	3 rd	A
Equipment/ workstation	0	1	18	30	11	3.85	4 th	A
Air quality and ventilation	0	1	17	32	10	3.85	4 th	A
Visual comfort	0	5	20	25	10	3.67	6 th	A
Thermal comfort	1	8	18	24	9	3.53	7 th	A
Acoustic comfort	6	9	18	20	7	3.21	8 th	U
Office décor	10	30	8	7	5	1.98	9 th	D

Note: 1.0 – 1.49 = Strongly Disagree (SD), 1.50 – 2.49 = Disagree (D), 2.50 – 3.49 = Undecided (U), 3.50 – 4.49 = Agree (A), and ≥ 4.50 = Strongly Agree (SA)

Relationship between Office Layout and Staff Performance

In a bid to achieve the 3rd objective, which is to establish the nature of the relationship between office layout and staff performance of academic personnel, the researchers adopted Pearson Correlation. The outcome is as shown in Table 6.

The r^2 value illustrates how much variance in the dependent variable (staff performance) can be explained by the independent variable (office layout). In this situation, 86.8 percent of the variance can be explained. Moreover, the strength of the linear relationship between the two variables increases with the distance of r from 0. Therefore, the Pearson's correlation coefficient ($r=0.9316$) indicates that there is a highly significant and positive relationship between office layout and staff performance. This implies that academic staff performance tends to

grow when elements of office layout are improved. This means that the independent variable (office layout) has a great impact on the dependent variable (staff performance). This is not surprising given the findings of the previous investigations of Seghal (2012), Bushiri (2014), Juhari (2016), Al-Omari and Okasheh (2017), and Saidu *et al.* (2021) which clearly show that a link exists between the workplace setting and employee performance. The implication of this outcome is that if the Management of the University is desirous of keeping staff performance high, they must continually improve the layout of the offices of the academic staff of the university. This will motivate them to perform better, which will in turn lead to the achievement of organisational goals, and the maintenance of same.

Table 6: Relationship between Office Layout and Staff Performance

Staff Performance (X Values)	Office Layout (Y Values)	X and Y Combined
$\sum = 33.72$	$\sum = 30.72$	N = 10
Mean = 3.372	Mean = 3.072	$\sum(x - M_x)(y - M_y) = 3.206$
$\sum(x - M_x)^2 = SS_x = 18.06$	$\sum(y - M_y)^2 = SS_y = 0.656$	

Key: x = x values; y = y values; M_x = Mean of x values; M_y = Mean of y values; SS_x = sum of $(x - M_x)^2$, SS_y = sum of $(y - M_y)^2$

R Calculation

$$r = \frac{\sum((x - M_x)(Y - M_y))}{\sqrt{((SS_x)(SS_y))}}$$

$$r = 3.206 / \sqrt{(18.06)(0.656)} = 0.9316$$

$$r = 0.9316$$

The value of r^2 , the coefficient of determination, is 0.8679.

The above calculation shows the values of r and r^2 . The r -value is 0.9316 while r^2 value is 0.8679.

CONCLUSION AND RECOMMENDATIONS

This study evaluated the influence of office layout on the performance of academic staff of Covenant University, Ota, Ogun State, Nigeria. From the analysis, three conclusions can be drawn. First, the staff rated their office layout elements as good. Second, out of nine variables that influence staff performance, staff identified seven as the most important factors. Finally, office layout has a significant impact on staff performance.

Based on the results of this study, the following suggestions are made:

1. Adequate provisions should be made to improve the office layout elements in the offices of academic staff since all of the respondents rated them as 'good' rather than 'excellent' or 'very good'. Moreover, Management of the University should provide a platform where academic staff can air their complaints periodically on the state of their office layout.
2. From the findings, office layout, reliable internet, office furniture, equipment/workstation, air quality and ventilation, visual comfort (natural and artificial lighting) and thermal comfort were identified as the core factors influencing the performance of academic staff in Covenant University. Hence, it is suggested that these elements should be given priority in the future by making adequate budgetary allocation for continuous improvement.
3. Finally, the study has shown that office layout has a noteworthy influence on the performance of academic staff. Therefore, the

University Management should take greater cognisance of the layout of the offices as well as ensure that they are given priority in financial decisions in order to enhance staff performance.

Implications of the Findings

This study's outcome will help university management create an environment that motivates academic staff to be more productive. Furthermore, this research will provide policymakers in the educational sector with information about the aspects of the work environment that impact performance. This knowledge will help them to design better policies that foster positive working conditions. Finally, this study will complement the existing literature on the impact of work environment on academic staff performance.

This study has some limitations. First, the number of factors that influence staff performance evaluated in this study is non-exhaustive. Further studies may be conducted with more than nine factors. Another limitation is that the study was conducted using staff of just one educational institution in Ogun State. Other researchers may consider involving more institutions.

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