

Impact of Work Environment on Employees' Performance in Federal Polytechnic, Offa, Kwara State, Nigeria

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Abstract. This study examined impact of work environment on employee performance using academic staff in Federal Polytechnic Offa, Kwara State as study focus. Survey research design was adopted with the use of questionnaire for data collection from the academic staff in the polytechnic. Data analysis was carried out with inferential statistics (regression and correlation matrix) and results established that the polytechnic work environment has significant effect on academic staff teaching effectiveness and that of research output. It was discovered that academic staff teaching potency is weak and research output is low. The study concluded that the polytechnic work environment has not promoted effective teaching and quality research. It was recommended that management should reposition the polytechnic work environment and make it more supportive to the academic staff performance especially in the areas of proper illumination and ventilation of lecture rooms, provision of internet facility, class control, lecturer/students ratio and conducive office arrangement.

Keywords: Academic staff, Effective teaching, Performance, Research output, Work environment

1. Introduction

The success and failure of educational activities highly depends on the performance of academic staff which has been linked to the quality of graduate. The inability to turn out quality graduates have been attributed to the inability of academic staffs in Tertiary Educational Institutions (TEIs) of learning to have fulfilled their two major responsibilities; teaching and research. Like other TEIs in the world, Nigerian tertiary educational institutions were established to pursue how to increase current

knowledge through research and spread it to the new generations through teaching in other to provide high-quality research and high-quality teaching (Federal Government of Nigeria, 2004).

To achieve high-quality research and high-quality teaching, it is expedient to attach teaching effectiveness to the criteria for promotion of academic staff in TEIs while some authors such as Chiemeké, Longe, Longe and Shaib (2009) and Agboola and Oduwolé (2005) have argued that research output should be the primary criterion for promotion of academic staff in TEIs. It is reasonable to combine both teaching effectiveness and research output as the leading criteria for promoting academic staff in TEIs because both complement each other.

In a situation where the essence of floating Higher Educational Institutions (HEIs) among which are the deliverables of academic staff are not attained, a lot of factors could be responsible. Notable among these factors is the state of staff working environment. A pleasant working environment no doubt promotes comfort and convenience required by workers to propel their performance level. Therefore, improving work environment is a top agenda of managers/management in this contemporary age.

This laudable objective is presently threatened by poor work environment of academics in the polytechnic system which is affecting their job performance (research, teaching, mentoring and community service). For instance, the official lecture/student ratio for polytechnic is along two lines; first is the science category which is 1:30 and for the social sciences category is 1:40. However, the situation is quite different as classes are overcrowded with students who at time hang around classroom windows to receive lecture. It was in this regard that the study examined how work environment affects

academic staff performance and evaluated the extent to which work environment have contributed to encouraging or discouraging academic staff performance such as teaching effectiveness and research output.

2. Statement of Problem

Poor educational standard has been reported in Nigeria by notable scholars (Mohammed & Abdullahi, 2011; Dauda & Mohammed, 2012; Aigheyisi & Obhiosa, 2014). These authors also attributed the fallen standard of education at tertiary level to poor performance of academics while it is evident that the unpleasant work environment of academic staff is one of the factors impeding their desire to put up excellent performance. Without mincing words, ensuring proper work environment considering the continued rise in demand for tertiary education without proportionate increase in academic staff and enabling environment for both teaching and learning has been seriously challenged in Nigeria TEIs. Similarly, research output has been at lowest rank. Okiki (2013) found out that research productivity of academic staff in the Nigerian Universities was lower in the publishing of textbooks, book chapters, monographs, and patents and certified inventions. It was against this backdrop that the study examined work environment and performance of academic staff in Federal Polytechnics Offa, Kwara State, Nigeria. To achieve this objective, two (2) hypotheses were developed and stated below in null forms:

H0₁: Work environment of academic staff of Federal Polytechnic Offa has no significant effect on their teaching effectiveness.

H0₂: Work environment of academic staff of Federal Polytechnic Offa has no significant effect on their research output.

3. Literature Review and Theoretical Framework

Discussions around performance have been at the front burner in both public and private sectors from time immemorial. It is a multi-dimensional construct, which permits value to be created on differing dimensions (Borman & Motowidlo, 1993; Campbell, Gasser & Oswald, 1996; Cameron, 1986; Dess & Robinson, 1984; Murphy, Traylor & Hill, 1996). Performance is related to work (what must be achieved by someone) and working conditions. This view reiterated the importance of good working conditions in job performance. At the micro level (individual), performance is defined as the extent to

which employee is able to accomplish the task assigned to him or her (Byars & Rue, 2006).

Work environment can be attractive and supportive or discouraging to individual job holders. While an attractive working environment could encourage individual to perform effectively, a discouraging working environment can be demotivating and make individual to be ineffective on the job. This is the interface of the working environment and job performance. A study carried out by Chandraseker (2011) confirmed that unsafe and unhealthy workplace environment in terms of poor ventilation; inappropriate lighting, excessive noise etc. affect workers' productivity and health.

Extant studies examined the effect of illumination, temperature, noise, and atmospheric conditions on performance of the workers (Bennett, Chitlangi and Pangnekar 1997). In a study conducted by Chandrasekar (2011) in Malaysia, it was established that brightness of office light promotes alertness, concentration, and task performance. In a study conducted by Okiki (2013) on research productivity of teaching faculty members of Nigerian federal universities, he established low internet bandwidth as a significant barrier to research productivity by teaching faculty members in the universities.

Satisfactory explanations through theories have also been provided on work conditions and its effect on job delivery of workers. Notable among them are scientific theory (1856 - 1915), Human relations theory (1920), and Herzberg two factors theory (1959). Hawthorn Experiments traced to Elton Mayo (1920) studied the impact of human relations on productivity, and to represent an important beginning in the transformation of Western management thought as a whole from the traditional school of thought to the human relations school, then to behaviourism school. Elton Mayo and his Harvard Colleagues (1920) in their work "Horthorn effect" on human relations approach to management". The first experiment was carried out in Philadelphia Textile Industry which had a high rate of labour of required average of 4000 employees yearly to be able to maintain. Effects of fatigue and monetary compensation were examined on output and rate of retention. It was discovered that the workers were pessimistic and less productive with high rate of labour turnover under the normal condition of service. This work is considered relevant to this present study because it affects workers and desire normal condition of service.

Herzberg (1959) two factors theory argues that employees are motivated by internal values rather than values that are external to the work. In other words, the impulse to perform on the job is driven by certain variables among which are work environment and salary. To Herzberg assumption, giving monetary performance incentives to teachers therefore will promote teaching effectiveness. This theory is relevant to this study in that it recognizes certain factors as impulse to job delivery of employees. Studies such as; Arsalani, Fallahi-Khoshknab, Ghaffari, Josephson, and Lagerstrom (2011) identified physical and psychosocial working conditions to have impact on job performance while Khan, Azhar, Parveen, Naeem, and Sohail (2011) concluded that incentives at workplace had a positive impact on employee's performance while infrastructure at workplace had no significant impact on employees.

A number of related studies have been carried out in both developed and developing countries. Erjem (2004) found that a significant percentage of public high school teachers working in Istanbul did not feel committed to their work places, because of the working conditions at schools. Most of the teachers were not happy with their school administration, physical conditions, crowded classrooms, and workload. In a study carried out by Bello and Adebajo (2014) in Nigeria on reward system and employees performance in public secondary schools. It was discovered that reward system is not adequate for teachers in public schools here by affecting their morale which contribute to their low job performance.

Based on a review, academic staff who constitute a vital tool for this service delivery seems not to be

comfortable with their work environment specifically those in the polytechnic system. The following gaps have been identified: There is no substantial literature on working conditions and job performance among academics specifically in Nigeria and more importantly the polytechnic sector. A somewhat close work is that of Mawoli and Babandako (2011) which looked at staff motivation, dissatisfaction and job performance in academic setting in Niger State which isolated working conditions as proxy under motivation in Ibrahim Badamasi Babangida University, Lapai. A study that looks at work environment as a variable is thus imperative on the one hand, while on the other hand looking at another form of tertiary educational system such as Polytechnic is germane.

4. Methodology

Ex-post type of descriptive research design was utilized in this study. In ex-post-facto type of descriptive research, the researcher has no control over the variables of interest and therefore, cannot manipulate them (Nworgu, 2006). This research design was considered adequate for the study because the purpose of the study was to describe the nature of work environment and examines the relationship that exists with the dependent variable (Academic Staff Performance: teaching and research).

The population of study was made up of academic staff in the six (6) schools (faculty) of the Federal Polytechnic Offa, Kwara State. According to the Establishment Department of the Federal Polytechnic Offa, academic staff in the polytechnic was four hundred and sixty-six (466) as at 31st January, 2017 (See table1 for the details).

Table 1: Academic Staff Strength in Federal Polytechnic Offa, Kwara State, Nigeria as at 31st January, 2017

S/N	Name of Schools	Campus	Number of Academics
1	School of Communication	Mini Campus	58
2	School of Applied Science	Mini Campus	96
3	School of Business and Management Studies	Main Campus	112
4	School of General Studies	Main Campus	42
5	School of Engineering	Mini Campus	86
6	School of Environmental Studies	Main Campus	72
	Total		466

Source: Establishment Department of the Federal Polytechnic Offa, Kwara State, Nigeria.

A multi-stage sampling procedure was used to pick participants in the study. First, a stratified sampling technique was used to cover both campuses (Main and Mini) that is, along campuses location. Secondly, purposive sampling was used to pick two schools in each of the campuses. For that of the schools; Main campus: School of Business and Management Studies and School of Environmental while Mini campus; School of Applied Sciences and School of Engineering. Thirdly, simple random sampling technique was used to pick respondents among the academic staff in the schools. In the opinion of Owojori (2002), a good sample represents at least 10% of the total population. In this wise to give room for adequate representation 19% of the total population (366) was chosen (89) for the study.

Questionnaire was used for data collection. The instrument was in sections; Section A: This was a self-drafted instrument tagged work environment of academic staff and teaching effectiveness with five (5) items on Likert five scale: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1). Section B: This was a self-drafted instrument tagged nature and content of work environment and research output with five (5) items on Likert five scale: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1). Ten (10) copies of the instrument were assessed by three (3) Senior Lecturers in Business and Entrepreneurship Department of Kwara State University for face validity and reliability.

Data generated were analysed with inferential statistics in the form of correlation and regression. The decision rule: where $t_{cal} > t_{tab}$, null hypothesis is rejected and alternative is accepted and where $t_{cal} < t_{tab}$, null hypothesis is accepted and alternative is rejected.

5. Data Analysis and Interpretations

Hypothesis One

Work environment of academic staff of Federal Polytechnic Offa has no significant effect on their teaching effectiveness.

The Model Equation

$$Y = f(X)$$

$$Y = \beta_0 + \beta_1 X + U_r$$

Where: Y = Dependent Variable: Teaching Effectiveness (TE)

X = Independent Variable: Work Environment (WE)

Therefore, TE = $\beta_0 + \beta_1 WE + U_r$

β_0 = Constant Term,

β_1 is the coefficient of X.

U_r = Error Term

Table 4.1: Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	WE ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: TE

Table 4.2: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.766 ^a	.587	.217	.07727	2.859

a. Predictors: (Constant), WE

b. Dependent Variable: TE

The tables 4.1 and 4.2 give an R square value of 0.587, Durbin Watson (DW) 2.859, F value of 19.933 with degree of freedom of 1 and 2, and p-value of 0.000. This shows that the work environment has a significant effect on teaching effectiveness at 1% level of significance. More so, the equation has a good fit as R-square (R^2) equals 59% indicating a 59% variation in teaching effectiveness as caused by work environment. Since the p-value (0.000) is less than 0.01 and 0.05. Hence, the null hypothesis is rejected and accepts the alternative hypothesis. That is, the work environment of academic staff of Federal Polytechnic Offa has significant effect on their teaching effectiveness.

Hypothesis Two: Work environment of academic staff of Federal Polytechnic Offa does not have significant effect on their research output.

The Model Equation

$$Y = f(X)$$

$$Y = \beta_0 + \beta_1 X + U_r$$

Where: Y = Dependent Variable: Research Output (RO)

X = Independent Variable: Work environment (WE)

Therefore, $RO = \beta_0 + \beta_1 WE + U_r$

β_0 = Constant Term, β_1 is the coefficient of X.

U_r = Error Term

Table 4.3: Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	WE ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: RO

Table 4.4: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.951 ^a	.904	.635	.03487	2.365

a. Predictors: (Constant), WE

b. Dependent Variable: RO

Table 4.5: ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.(p-value)
1	Regression	.005	1	.005	14.481	.021 ^a
	Residual	.001	1	.001		
	Total	.007	2			

a. Predictors: (Constant), WE

b. Dependent Variable: RO

From tables 4.3, 4.4 and 4.5 it was revealed that R square value of 0.904, Durbin Watson (DW) 2.365, F value of 14.481 with degree of freedom of 1 and 2 and p-value of 0.021. This implies that work environment significantly affect research output at 5% level of significance. More so, the equation has a good fit as R-square (R^2) accounts for 90% of the total variation in research output as caused by work environment in the model, since the p-value (0.021) is less than 0.05. Hence, the null hypothesis is rejected and accepts the alternative hypothesis. Therefore, the work environment of academic staff of Federal Polytechnic Offa has significant effect on their research output.

6. Discussion of Findings

It was established that work environment of academic staff of Federal Polytechnic Offa has significant effect on their teaching effectiveness. This was similar to the view of Chandraseker (2011) which confirmed poor ventilation; inappropriate lighting, excessive noise etc. affect employees' performance and health.

Secondly, the study also revealed that the content of work environment significantly affects research

output of academic staff. Therefore, if academic staff desire to increase their research output they must be provided with working tools that can promote research activities. This finding agrees with Okiki (2013) position that low internet bandwidth as a significant barrier to research productivity of teaching faculty members. Aside this, the survey revealed that academic staff research output were pronounced in article publications than textbooks (Co-authored and chapters in book). This finding agrees with the position of Okiki (2013) which pointed out that research productivity was lower in the publishing of textbooks, book chapters, monographs, and patents and certified inventions.

7. Conclusion

The Nigerian polytechnic has no doubt fall short of meeting her mandate over the years. One of these areas has been teaching ineffectiveness and low level of research output as overt in the research quality of lecturers and graduates over the years. This study has reviewed factors which has contributed to this and empirically examined two critical components of working conditions that is teaching workload and work environment which are found to be related to

academic staff performance in Federal Polytechnic Offa, Kwara State. From the survey, it was empirically established that the proxies of working conditions examined affects academic staff performance. However, there is need for academic staff and management to work on some areas to guarantee teaching effectiveness and research output in the polytechnic.

8. Recommendations

Based on the findings of this study, the following recommendations were suggested to ensure teaching effectiveness and increase research output among academic staff in the polytechnic:

- Management of the polytechnic needs to work on the working environment in the school to make it more conducive for teaching and learning. Effort should be made towards proper illumination and ventilation of lecture rooms, adhering to lecturer/students ratio and sensitization of the polytechnic community on the importance of maintaining noiseless environment at all time.
- Management of the polytechnic should also work on the provision of functional working tools such as computer systems and internet facility and regulate social activities of students on campus to minimize distraction to boost research activities of academic staff.

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