

Performance Management and Quality Performance in Higher Educational Institutions in Ghana

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Abstract. In the present day, rivalries among companies globally appear to be responsible for shaping their strategies in a time when quality is of great significance, and productivity is realized through the well-thought-out employment of human resources. Performance management is a key organizational paradigm whose tenets are indispensable in all enterprises, as it inspires workers, enriches corporate objectives and directs operations at every level.

This paper attempts to establish whether a relationship exists between performance management practices and quality performance in public higher educational institutions (HEIs) in Ghana. It was designed as a case study in which some public universities were selected as units of analysis using a quantitative approach. The findings revealed a moderate positive correlation between Quality Performance Practices and Performance Management (PM) Practices in public higher educational institutions (HEIs) in Ghana. Further analysis showed that a unit change in PM Practice will cause Quality Performance Practices to increase by 0.225, approximately 23% and vice versa.

Keywords: performance management, quality performance practices, human resource management

Introduction

Lately, there has occurred a change of policy in the formation and execution of curricula directed towards attaining growth aspirations. Certainly, the wish for continuous progress in many political, economic and social spheres, necessitates capabilities that can carry out tasks, in addition to possessing abundant impetus to do so (Barnett, 1995). Therefore, institutions have to pay particular attention to the skills advancement of their workforce. Consequently, a major obligation is on Human Resources Management (HRM), and supervisors to undertake their assignments by offering fitting ecosystems for skilled staff to accomplish their tasks proficiently (Andersson, 2007). Performance Management (PM) processes that include suitable industry paradigms assist in shaping the quality and achievements of HEIs. This can be realisable, when administrations are capable of following the progress of preferred employee behaviours by counting on Performance Management procedures. PM is a function of Human Resource Management that bonds individual endeavor to the aims of the institution. Personal and collective PM refer to actions during which individual undertakings are managed to accelerate institutional operations (Armstrong & Baron, 1998). Together with their employees, managers undertake to determine objectives, examine outputs and remunerate productivity or expertise in an attempt to expand the competence of the workforce, with the ultimate objective of positively impacting institutional efficiency (Den Hartog et. al., 2004). The concept of Performance Management differs among scholars. Mc Bain (2004) for instance, asserts that increasingly, Performance Management policies are being recognized as processes of managing personal productivity as opposed to relying on staff evaluation only. These schemes present the opportunity of strongly coupling the aims of the institution. Thus, the eventual product stands a higher likelihood of attaining institutional aspirations. Bates and Holton (1995) perceive Performance Management to be a corporate and cohesive method of attaining constant success for organizations by enhancing the performance of each employee, and groups

of workers. The foremost aim of Performance Management is realising institutional goals, reaching improved outcomes from specific involvements, and fostering staff conduct and productivity in addition to anticipated attainment of specific and executive objectives. Furthermore, it lays emphasis on constant appraisals to push the staff towards performing the required tasks timeously by way of joint effort. This administrative technique is also noticed in education. Due to the rapidly increasing number of schools, on top of the events inside the intellectual environment and the quest for excellence in teaching and learning, well-organized supervision of employees becomes imperative so as to drive the institutes towards Quality Performance.

Performance Management Practices

Performance Management procedures that examine the performance of employees of higher education are critical, owing to the bettering of quality in teaching and learning. For commercial initiatives, as in academic circles, the topmost issues are the quality of the product and the satisfaction of clients. Consequently, PM of employees is a continuous procession, to bring about advancement towards institutional goals, identify prospects for growth and align productivity with internal and external benchmarks. In teaching and learning, the qualities and limitations of the institutes are discovered through PM praxes. This is realised by the application of a variety of PM schemes to evaluate individual staff, the unit, the processes and (or) the whole institute. PM is a gradual process of expanding a person's productivity and organizational performance in the attainment of its objectives. Employee administration embraces approximating productivity targets, constantly monitoring output, upping the effectiveness of staff and occasionally, evaluating efficiency.

PM is a paradigm founded on established objectives and shaped to ensure that organizational schemes are in place to escalate the performance of employees and the organization as a whole. In addition, it involves the entire organization, and lays emphasis on assessing and raising the capability of the employees. Furthermore, it links goals and standards to incentives so as to create desired relationships. There is a belief that there is a continuous relationship between effective performance management procedures and quality performance in institutions.

Problem Statement

Greenhalgh (2003) suggests that Human Resource (HR) technocrats must assume a principal position in directing and applying policy throughout the organisation, instead of the organisation regularly using outside experts. On their part, Armstrong and Ward (2005) posit that HR staff should adopt a more active position in inspiring supervisors to deal with job schedules at the same time as implementing the proper HR guidelines. If organisations can make certain that efficiency is implanted into employee management, they would be propelled to a position that would permit them to attain leadership in the industry through higher productivity. Tsaura and Lin (2004) observe that HRM functions assist organizations to raise the standard of their services. Consequently, Performance Management actions can be adopted to train workers to achieve the required performances in organizations. Nevertheless, the efficiency of trained staff will be inadequate except that they are spurred on to undertake their tasks (Oladipo, 2011). In line with this, Messah and Kariuki (2011) point out that establishing goals certainly enhances staff output. The foremost goal of Performance Management is realising organizational aims, getting improved productivity from each worker, and shaping the conduct and efficiency of the staff.

In this regard, quality human resource management operations in universities and colleges can lead to outstanding end results (Omebe, 2014). It is the aim of this paper therefore,

to attempt to discover the relationship if any, between effective PM Practices and Quality Performance in public HEIs in Ghana.

Research Design

Research design is the general scheme of how the research questions would be answered. It is the hypothetical procedure that will guide the study. It comprises a framework for the collection, assessment and evaluation of data (Saunders *et. al.*, 2007). A study is a process of gathering information during which people are requested to answer a number of questions (this is typically a questionnaire). A research method is an essential part of an essay which helps to make certain of the reliability of selected instruments, methods and fundamental viewpoints. The study employed a descriptive survey design, and assumed a quantitative method, in which closed ended questions were used to solicit responses from respondents.

The Study Population

The study population is the total of constituents from which the sample is selected. That is, the aggregation or whole of the population from which information can be elicited (Rubin & Babbie, 2001). The chosen population for the research were staff from the HR departments of some selected higher education institutions in Ghana. The total population of the HR departments of the institutions was one hundred and seventy-three (173). During the distribution of the questionnaires, the researcher relied on the Yamane (1967) formula to determine a correct sample size. This technique for sample size calculation helps a scholar to arrive at a statistically fit sample size from a given population. It is stated as $n = \frac{N}{1 + N(e)^2}$,

where n = the sample size, N = total population, e = margin of error (5%) and 1 = constant

The Sample Size and Sampling Techniques

Sampling is the gathering of a smaller group of people, objects, (or anything that is the subject of a study) from within a population to estimate the characteristics of the entire population. The study made use of 121 HR employees using the Yamane formula as the sample size of the study. The sample size must be large enough to permit statistical examination. Explaining this point, Castillo (2009) states that the foremost purpose of the sample is to allow the researchers to perform the study on individuals or objects from the population so that their findings can be used to draw inferences that will apply to the entire population.

Data Analysis Method

The questionnaires were handed out to the participants for their responses, after which minor corrections were made to improve precision. The data was evaluated using the Statistical Package for the Social Sciences (SPSS). Afterwards, a correlation test was carried out to establish whether or not a relationship existed between HRM Practices and Quality Performance.

Ethical Issues

For the fact that human participants were the objects of study, certain ethical matters needed to be attended to. Sorting out these issues was required for safeguarding the privacy of the respondents. Important themes that were taken into account involved permission, secrecy and protection of data. The researcher assured the participants of their privacy and that the research information was for scholarly work only. The participants took part in the survey of their own free will.

Regression Analysis

Findings from the study pointing to a correlation between human resource management practices and quality performance were validated using regression analysis. This is a statistical technique that examines and practically exhibits the linkage between variables (Montgomery, Peck & Vinning, 2012). In other words, it is a method for demonstrating the statistical relationship between a random variable and one or several independent variables, and used to calculate the value of the random variable. In this study, simple linear regression analysis was used in investigating and showing the correlation between two variables, in which a single variable X, has a relationship with a response Y, modelled in a straight line.

Table 1 bellows shows the findings after the analysis. The following assumptions on the subject of regression analysis were tested.

Linear relationship, independence, homoscedasticity and normality.

Table 1. Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.604 ^a	.365	.355	1.458

Source: Field survey (2018)

Source: Schober (2018)

$$r = \frac{\sum_{i=1}^n (xi - \bar{xi})(yj - \bar{yj})}{\sqrt{[\sum_{i=1}^n (xi - \bar{xi})^2][\sum_{i=1}^n (yj - \bar{yj})^2]}} \quad (1)$$

The equation above is explained as:

r = Correlation.

xi = Mean of the Quality Performance.

yi = Mean of the PM Practice.

$\Sigma(xi - \bar{xi})$ = sample variance of Quality Performance.

$\Sigma(yi - \bar{yi})$ = sample variance of PM Practice.

The inference from the above equation can be interpreted as follows:

$\Sigma(xi - \bar{xi})(yi - \bar{yi})_{ni=1}$ = sample covariance of Quality Performance and PM Practice.

The range of the correlation coefficient (ρ) is from -1 to +1. If the value of (ρ) is close to +1, it denotes the existence of a strong positive linear correlation between the variables. Also, if (ρ) is close to -1, it suggests the existence a strong negative linear correlation between the variables. If (ρ) is close to 0, it means there is either no linear correlation amongst the variables or a weak linear correlation exists between the variables.

As observed from the regression Table 1, R = 0.604 (R is the correlation between the predicted values and the observed values of y). This suggests the existence of a strong positive linear correlation between Quality Performance Practices and Performance Management Practice. The correlation between the variables shows that as PM Practice rises, Quality Performance Practice also tends to rise. This indicates that PM Practice accounts for 60% in predicting quality performance in public HEIs. Standard error shows us how wide off the mark the regression model is approximately, using the units of the response variable. Smaller values are more reliable because they denote that the observations are closer to the fitted line.

The values depicted in Table 2 below are explained as follows:

SSR means sum of squares due to regression. It is the summation of the differences between the forecast value and the mean of the dependent variable.

SST means total sum of squares. It is the aggregate of squared deviations of separable measurements from the mean.

SSE stands for the sum of squares error. It is the variance between the survey value and the expected value.

Adjusted R^2 , pronounced adjusted R-squared. This is a measurement in statistics that shows how close the survey data are to the fitted regression line. In this study, it is responsible for 36% variation in the dependent variable (Quality Performance Practices), and is the percentage of variation in Quality Performance Practices that is described by the independent variable PM Practice. It is the ratio of the response variable variation that is explained by a linear model. In addition, R-squared indicates how well the model fits the data. In the model, the estimated Residual (e) is the variance between the detected value of the dependent variable (y) and the predicted value ($\hat{y}$).

Analysis of Variance

The analysis of variance (ANOVA) is employed to provide information about the level of variability within a regression model and forms a basis for test of significance; it also enables the association to be studied for more than two independent samples (Clarke & Cooke, 1998; Cohen, 1995).

Table 2. ANOVA Test for Model Validation

ANOVA ^a						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	77.019	1	77.019	36.251	.000 ^b
	Residual	133.851	63	2.125		
	Total	210.870	64			

Source: Field survey (2018)

From the ANOVA above $F = 36.251$, p -value = 0.000. There is adequate proof to assume that the model was valid. Furthermore, $SSR = 77.019$ and $SSE = 133.851$, the coefficient of determination, in Table 1, R^2 (which is the proportion of variation in the Quality Performance Practices that is described by the PM Practice) will be high, indicating a good model given in the equation.

Correlation Coefficient Test for Relationship between Variables

A correlation coefficient expresses the degree of linear relationship between two sets of scores. In correlated data, therefore, the change in the magnitude of one variable is associated with a change in the magnitude of another variable, either in the same or in the opposite direction (Schober, Boer, & Schwarte, 2018).

Table 3. Correlation Coefficient Test

Coefficients ^a						
	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.759	.861		.882	.381
	HRM_BE ST	.225	.037	.604	6.021	.000

Source: Field survey (2018)

Considering the table of coefficients in Table 3, a framework may be created that clarifies the correlation among the two variables Quality Performance Practice and PM Practices. The universal linear model describing the correlation amongst two variables is $Y = a + bX + e$,

where **Y (Quality Performance Practices) = a + bX (PM Practices) + e**, where **Y** is the dependent variable, '**a**' is the intercept, **b** is the slope, **x** is the predictor variable and **e** is the error. In the study, holding all other variables constant, gives the intercept '**a**' which is equal to the dependent variable '**Y**', that is, Quality Performance Practices. Again, holding all other variables constant, a unit change in PM Practice will cause the Quality Performance Practices (dependent variable '**Y**') to increase by the slope '**b**'. Substituting the characters in the equation with the values from the table of coefficients above, the linear model amongst the variables becomes

$$\text{Quality Performance Practices in HEIs} = 0.759 + \text{PM Practice } 0.225$$

From the model, it is observed that PM Practice made a positive impact on Quality Performance Practices of HEIs. In other words, Quality Performance Practice of HEIs was dependent on Performance Management Practice. Therefore, there was a positive linear correlation or a causal relationship between Quality Performance in HEIs and PM Practice. Thus, a unit increase in PM Practice will cause Quality Performance Practice in HEIs to rise by 0.225, or approximately 23%, while a unit fall in PM Practice will cause Quality Performance Practices in HEIs to drop by 0.225, or approximately 23%.

Testing for the Validity of the Model

Validity of a model is the method of finding the extent to which the model resembles the real system, or at best, correctly represents the model specification document. It can be assessed both operationally (that is, by establishing if the model output agrees with observed data) and conceptually; (that is, by finding out whether the theory and assumptions supporting the model are grounded (Sargent, 1984; Rykiel, 1996).

Hypothesis testing for the constant

$$H_0: B_0 = 0$$

$$H_1: B_0 \neq 0$$

A null hypothesis is a classical arithmetic theory which suggests that no arithmetical connection and significance exists in a set of assumed single observed variable, between two sets of observed data and measured phenomena (Haldar, 2018)

Decision: since the p-value of 0.381 is greater than the alpha, we fail to reject the null hypothesis, and infer that the constant is not significant in the model.

Hypothesis Testing Performance Management Practice

$$H_0: B_1 = 0$$

$$H_1: B_1 \neq 0$$

Decision: since the p-value of 0.000 was less than alpha 0.05, we rejected the null hypothesis and inferred that there was enough evidence to say that PM Practice was significant in the model.

From the test, the model becomes Quality Performance Practice in HEIs = PM Practice.

From the model, it was realized that PM Practice impacted positively on Quality Performance Practices in HEIs. That is, Quality Performance Practice in HEIs is dependent on Performance Management Practices.

Hence, there was a positive linear correlation or a causal relationship between Quality Performance Practice in HEIs and Performance Management Practice. A unit rise in PM Practice caused Quality Performance Practices in HEIs to increase by 0.225 or approximately 23%, while a unit drop in PM Practice caused Quality Performance Practices in HEIs to decrease by 0.225, or approximately 23%.

Diagnostic Test on the Residuals of the Regression Analysis

Regression diagnostics test are statistics used for detecting problems which are encountered in a model or a data set (Yazici, 1998; Yazici, & Gurbuz, 2002).

A diagnostic test on the residuals of the regression was performed to determine whether the relationship between Quality Performance Practices (QPP) in higher educational institutions and Performance Management Practice had carried on for long. Table 4 shows the results of the analysis.

Table 4. Diagnostic Test

Augmented Dickey-Fuller Test.	
Dickey-Fuller=-3.4523	
Lag order =3	P-value 0.049

H_0 =There is no cointegration between OP in HEIs and PM Practice.

H_1 =There is cointegration between OP in HEIs and PM Practice.

Decision: since the p-value of the Augmented Dickey-Fuller Test (0.049) was less than alpha value of 0.05, we rejected the null hypothesis, and hence, there was sufficient indication to determine that there is co-integration between the QPP in HEIs and PM Practice. Therefore, there was a long running relationship between QPP in HEIs and PM Practice.

Discussion

Significantly, there was a positive linear correlation between PM variables and quality performance; the regression analysis indicated that PM variables are important aspects of quality performance practices in HEIs and that, there was a positive linear correlation between PM variables and quality performance in HEIs. The indication of this analysis was that PM variables had a positive impact on quality performance in public universities and colleges. The research showed that PM variables were significant constituents of quality performance and that there was a causal relationship between PM Practice and Quality Performance. As indicated by the model **Quality Performance** = 0.759 + PM Practice 0.225.

The model unambiguously shows that PM Practice promotes Quality Performance Practices in HEIs in Ghana.

Summary

The research findings appeared in accord with existing facts about HRM best practices, including quality performance practices in education. Simple linear analysis was used to establish a relationship between Quality Performance and HRM best practices. The research firmly established a slightly positive linear correlation between Quality Performance and Human Resource Best Practice at (0.604). Subsequent analysis of variance showed p-value as 0.000, which was less than the alpha value of 0.05 indicating that the model was valid, reliable, and good for prediction. A diagnostic test was performed on the residuals of the regression to deduce the presence of an extended relationship between Quality Performance and HRM best practice. The findings revealed that the p-value of the Augmented Dickey-Fuller Test (0.049) was less than the alpha value of 0.05. Therefore, the null hypothesis was rejected since there was sufficient proof to conclude that there was co-integration between Quality Performance and HRM best practice. Therefore, there was a long-standing relationship between Quality Performance and HRM best practice.

In principle, supervisors and directors may dedicate their energies to efficiently controlling and adding to the value of HRM practices. This could be a critical area for future success in facilitating quality performance practices in public higher educational institutions in Ghana.

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