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Performance Contracting and Academic Staffers Administrative Work Systems' for Service Delivery in Selected Kenyan Universities

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Abstract:
Performance contracting has largely been considered as the remedy to the quality of service delivery in public universities in Kenya. The study sought to specifically evaluate academic staffers administrative work systems' contribution to service delivery. The study used a descriptive design to describe some aspects of performance contracting and make directional predictions on its effects on the quality of service delivery by university lecturers. Empirical evidence was collected from three (3) public universities comprising 848 lecturers. In total 142 staff members were randomly selected as questionnaire respondents. The descriptive findings showed that most of the lecturers had awareness of performance contracting in their institutions but understood it differently in respect of versions and terminologies. The F-test confirmed at least at 90% CI that there was a strong relationship between administrative work systems and the level of service delivery, and that it was not due by mere chance.

1. Introduction

Meeting challenges to deliver outputs and outcomes while simultaneously preserving valued process and academic discourse is a complex balancing act (Houston et al., 2006).The complex and volatile environment of higher education sector is examined by many, noting its challenges (Middlehurst,2004) and the need to provide strategic vision while tackling the increasing managerialism (Shattock,2003).The different styles of leadership and their appropriate usage have been much debated (Schein, 1988;Bensimon,1989; Middlehurst, 1993;Bargh et al.,2000).Barnett (2003) felt leadership could help to promote ideological inclusivity through opening the debate between the competing ideologies of research and teaching. The area of day to day leadership can be related to the issue of workload balancing and allocation, where it is felt that much of the responsibility falls on heads of schools or departments. There are difficulties to these managers due to issues such as their, often, temporary position and limited management training (Davies, 1995), and their dual identity, acting both as manager and colleague (Middlehurst, 1993; Gmelch and Burns,1994; Jackson,1999; Archer,2005).

In the context of university academic staff, who are lecturers charged with the duty of teaching, research and publications there has been an increasing tendency to assign them duties to manage the various activities of the universities (McInnes 1999; 2000). This has led to increased responsibility and has led to more pressure on the lecturers to deliver in the different positions in which they serve. Due to so much expectation from the top management there has been a lot of pressure on the particular individual lecturers and this has led to more effort being dedicated so as to meet the various targets set. In some instances the targets are not achieved and this leads to frustrations on both the staff and the top management (Coaldrake and Stedman 1999). The researcher of this study also identified other gaps in the knowledge of administrative work system in Kenyan universities, which were filled by assessing such factors as: Employees' recognition, training, development, working facilities, medical coverage, working relations, working rules and regulations, take home package, out-of-office team building activities, and assignment of other duties.

2. Methodology

2.1. Research Philosophy, Design and Sampling

2.1.1. Research Philosophy and Design

The study adopted an epistemological approach towards implementing the conceptual framework to investigate the nature, practices and limits of human knowledge on performance contracting in public universities of Kenya. This research philosophy was anchored within a descriptive design. A descriptive design helps to answer questions concerning the current status of the subjects under study (Mugenda and Mugenda, 2003).Descriptive studies are aimed at finding out 'what is'. Descriptive research can include multiple variables for study(Borg and Gall,1996).Description emerges following creative exploration and serves to organize the findings in order to fit them with explanations and then test or validate these explanations (Krathwoh,1998). Kothari (2009) points out that descriptive research studies are concerned with specific predictions, narration of facts and characteristics concerning individuals, groups or situations.

2.1.2. The Target Population

The target population comprised the seven (7) public universities duly recognized and operating in the year 2012. The academic staff focused on ranged from tutorial fellows to professors. The total number of academic staffers in this university was five thousand six hundred and thirty (5630) (Table 1). The researcher chose this category of staff since the main function of these institutions of higher learning is research, dissemination of knowledge and community work and the academic staffers are the formulators, implementers and monitors.

University	Year of inception	Staff Members No.
Nairobi	1964	1429
Kenyatta	1985	879
Moi	1984	1286
Egerton	1987	543
Maseno	1991	320
Jkuat	1994	633
MasindeMuliro	2007	540
Total		5630

Table 1: Universities' Teaching Staff member's schedule
Source: Human Resource Information Management Systems (2012)

2.1.3 Sampling Design

The researcher used a multistage random sampling that encompassed a purposeful sampling of public universities and a random sampling of academic teaching members of staff from the main campuses (not satellite campuses) (Table 2).

University	School	Total Pop.	Target (15%)	Actual Respondents
Kenyatta University	Humanities and Social Sciences	205	31	19
	Business	74	11	20
	Education	151	23	27
	Sub-Total	430	65	66
Moi University	Arts and Social Sciences	121	18	27
	Business and Economics	72	11	11
	Education	114	17	17
	Sub-Total	307	46	55
Maseno University	Humanities and Social Sciences	49	7	10
	Business and Economics	30	5	6
	Education	32	5	5
	Sub-Total	111	17	21
Total		848	127	142

Table 2: Teaching academic staff schedule of selected universities
Source: Field Data (Researcher 2013)

Table 2 reflects that the researcher purposefully picked three state-run universities whose total number of teaching staff was two thousand four hundred and eighty five (2485).The three universities constituted two of the oldest and one among the new, and also in different geographical setups. These universities were Kenyatta University, Moi University and Maseno University. Kenyatta University the following was considered, schools (15) which make up 62 academic departments. In Moi University the following was considered, schools (14) consisting of 74 academic departments while in Maseno the following was considered ,schools (12) and one (1) faculty which make up 54 departments. The researcher chose the biggest schools and faculties in terms of student population as evidenced by the proposed Joint Admissions Board (JAB) admission of undergraduate students in the academic year 2012/2013.These schools in Moi university, were school of business and economics, school of education and school of arts and social sciences, while in Kenyatta university it was school of business, school of education and school of humanities and social sciences and in Maseno University it was school of business and economics, school of education and school of humanities and social sciences. The respondents to the questionnaire were picked using simple random sampling and a total number of 142 respondents was realized from 180 questionnaires issued to the study population of 848 academic staffers and this represented a proportion of 16.74%.

2.2. Data Collection

2.2.1. Procedures for data collection

This study was mainly done using primary data collected through self-administration of a questionnaire, which was dropped to each respondent and picked later. Where additional information was required by the researcher, semi-structured interviews were conducted. The questionnaire consisted of both open-ended and closed-ended questions. Respondents to self-administered questionnaires are relatively unlikely to answer questions to please you or because they believe certain responses are more socially desirable (Mark et al., 2003).The researcher used both qualitative and quantitative data. Qualitative data was appropriate since meanings were based on expression through words and analysis was through conceptualization, while quantitative data was appropriate since meanings were derived from numbers and analysis was done through use of diagrams and statistics. This information was coded and analyzed with the use of statistical package for social sciences (SPSS).

2.2.2. Validity of Research Instrument

In relating the measuring instrument to the general theoretical framework so as to determine whether the instrument was tied to the concepts and the theoretical assumptions the researcher employed construct validity as advocated by Cronbach (1955). The researcher used clear wording of the questions by employing terms that are likely to be familiar to, and understood by the respondents. Content validity was done to ascertain clarity and simplicity, the researcher sought experts and supervisor's opinion to ascertain whether the content of the research instrument was up to standard, after which he administered it to the respondents.

2.2.3. Reliability of Research Instrument

Reliability can be assessed by posing the following questions: will the measures yield the same results on other occasions? Will similar observations be reached by other observers? And whether there is transparency in how sense was made from raw data? (Easterby-Smith et al.2002).According to Tabachnick and Fidel (2001), reliability relates to the constancy with which a measuring instrument yields certain result, where the results of constructs measured demonstrate a high percentage of similar outcomes and is without bias. This analysis was conducted for all statements structured on a Likert point scale using Cronbach alpha score test. Cronbach's alpha coefficient value for determining the internal consistency of the research instrument was defined by equation [2.1]:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K}\sigma^2 Y_i}{\sigma^2 X}\right) \qquad [2.1]$$

Where: K is the number of components (K-items or testlets), $\sigma^2 X$ the variance of the observed total scores, $\sigma^2 Y$, the variance of the component I for the current sample of persons. Normally this is described as follows: Excellent, $\alpha \geq 0.9$;Good, $0.9 > \alpha \geq 0.8$;Acceptable, $0.8 > \alpha \geq 0.7$;Questionable, $0.7 > \alpha \geq 0.6$; Poor, $0.6 > \alpha \geq 0.5$; Unacceptable, $\alpha < 0.5$

2.3. Data Analysis

2.3.1. Data Pre-Processing and Processing

Under this section the following subsections explain the kind of model specification, calibration and estimation procedures used in the study.

2.3.2. Model Specification

As an outcome of performance contracting, the quality of service delivery at university level is clearly assessed in terms of tangibles (y_1), reliability of services (y_2), responsiveness of employees (y_3), assurance given by lecturers (y_4) as well as their empathy (y_5). These variables are impacted by several factors ranging from teaching workload (Objective 1) to working environment (Objective 4)

via the administrative work systems (Objective 2) and employees participation in community service (Objective 3). All these variables and their relationships can be represented by equation [2.2]:

$Yi = \alpha i + \beta 1jx1j + \beta 2jx2j + \beta 3jx3j + \beta 4jx4j + \varepsilon i$ [2.2]

Where,

Y_i are factors related to the quality of service delivery

X_{1j} = Teaching workload factors

X_{2j} =Administrative work systems' factors

X_{3j} = community service participation factors

X_{4j} = the organizational environment factors

α_i = the intercept

β_i = the regression coefficients of the independent variables.

ε_i = the error term

Table 2.3 describes the specific variables used in this study. The following sub-sections deal with some econometric problems encountered in the study that could lead to biased predictions. These encompass the testing of the multicollinearity among predictors and their homogeneity of variances with the dependent variables.

2.3.3. Testing Multicollinearity

This model diagnostic was carried out to rule out the assumption of high correlation between explanatory variables of different types of predictants related to the quality of service delivered at university. The multicollinearity test enabled to minimize the number of parameters involved in the model so as to generate reliable predictions on the level of service delivery at university level within acceptable confidence limits. Such an econometric problem if not addressed was likely to lead to biased predictions of the performance of public universities in Kenya. Where one of the variables was found to be highly correlated to another it was deleted from the model. Multiple correlation coefficient is considered high when its value is equal or above 0.7(Cohen and Holiday 1998) and that was the cutting point for the study.

2.3.4. Homogeneity of Variances

In spite of conducting the test of multicollinearity, an independent test for equal variances between the predictant and its predictors was necessary to rule out any assumption of heterogeneity, which may possibly increase the presence of heteroskedasticity of errors in the error term. The rejection of heterogeneity gave justification to the use of normal distributions, namely the F and t tests. This hypothetical homogeneity of variances was derived from Levene's test which is an independent test of homogeneity of variances. Heuristic method was later used to cluster the observed variables for inferring hypothesis test.

2.3.5. Model Estimation

This stage of the study dealt with the identification of a specific model that could measure the level of service delivery at university level. Hence, five categories of factors related to the quality of service delivery at university were selected, and their corresponding causes (or variables) identified. The selected model can be represented by a system of equations defined by the algebraic description below [2.3]:

$Y = A + BX$ [2.3]

Where,

Y = vector of predictants related to the level of service delivery

X = Matrix of predictors of the level of service delivery

B = Matrix parameters of the relevant predictors

A = vector of the model intercepts

The full regression model of the level of service delivery may be written as follows [2.4]:

$$\begin{bmatrix} y_1 \\ y_2 \\ y_3 \\ y_4 \\ y_5 \end{bmatrix} = \begin{bmatrix} a_1 \\ a_2 \\ a_3 \\ a_4 \\ a_5 \end{bmatrix} + \begin{bmatrix} b_{11} & b_{12} & b_{13} & b_{14} & b_{15} & b_{16} & b_{17} & b_{18} & \cdots & b_{1n} \\ b_{21} & b_{22} & b_{23} & b_{24} & b_{25} & b_{26} & b_{27} & b_{28} & \cdots & b_{2n} \\ b_{31} & b_{32} & b_{33} & b_{34} & b_{35} & b_{26} & b_{37} & b_{38} & \cdots & b_{3n} \\ b_{41} & b_{42} & b_{43} & b_{44} & b_{45} & b_{26} & b_{47} & b_{48} & \cdots & b_{4n} \\ b_{51} & b_{52} & b_{53} & b_{54} & b_{55} & b_{56} & b_{57} & b_{58} & \cdots & b_{5n} \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \\ x_6 \\ x_7 \\ x_8 \\ x_9 \\ \vdots \\ x_n \end{bmatrix} \quad [2.4]$$

Table 3

Table 3 displays the actual variables used in the modeling to predict the performance of university staffers vis-à-vis their contractual academic duties.
Multiple logistic regressions (probit, logit or tobit) of these predictants by their relevant predictors were conducted to estimate the regression parameters for each category of dependent variables (predictants). The latter were embedded in the Multivariate Generalized Linear Model (GLM) procedure, which was run to that effect using the SPSS software package.

2.3.6. Model Evaluation and Validation
In establishing the goodness of fit of the model and to rule out the presence of bias in the prediction a diagnostic check-up was conducted. Pearson's Rho test was used to establish the correlation of various variables. To get an appropriate set of parameters that determine the strength of ties between subjects within the variables input and in order to measure in the regression strength the coefficient of determination (R^2), the Beta weight and the F and t statistics were employed.

3. Results and Discussion

3.1. Key descriptive of the sample
The researcher in this part wished to find out how the various aspects of the employee administrative work systems were related to service delivery. In this respect he covered: employee recognition, employee training, employee development, employee working facilities, employee medical cover, employee working relations, better working rules and regulations, competitive take home package, out-of-office team building activities and assignment of other duties and showed their relationship to performance contracting and the level to which efficiency and effectiveness were affected. The findings are reflected in the following pages, figures and tables
Table 3: Specific variables for analyzing performance contracting at university level

Predicant: Quality of service delivery at university measured by:		**Predictors**							
		Objective 1: Teaching workload		*Objective 2:* Administrative work systems		*Objective 3:* Community service		*Objective 4:* Organisational environment	
Emplo WS 11	Tangibles	Increase in demand of courses offered	PerCTS 13	Employee recognition	Emplo WS1	Well paid employees	Emplo CSS 1	Initiation of new academic programmes	Contri 1
Emplo WS 12	Reliability	Increase in student enrollment	PerCTS 14	Employee training	Emplo WS 2	Continous employee training	Emplo CSS 2	Strengthening of academic processes	Contri 2
Emplo WS 13	Responsive ness	Timely graduation	PerCTS 15	Development of employees	Emplo WS 3	Rigorous employee development progran	Emplo CSS 3	Enhancement of individual autonomy	Contri 3
Emplo WS 14	Assurance	Effective and efficient teaching methodologies	PerCTS 16	Improved working facilities	Emplo WS 4	Employee with better working facilities	Emplo CSS 4	Greater automation of academic work	Contri 4
Emplo WS 15	Empathy	Reduction in customer complaints	PerCTS 17	Competitive medical cover	Emplo WS 5	Employee promoted for achieving targets	Emplo CSS 5	Better utilization of academic resources	Contri 5
		Increase in customer compliments	PerCTS 18	Better employee working relations	Emplo WS 6	Best worker awards	Emplo CSS 6	Bettercustomer service	Contri 6
		Increase in number of graduates	PerCTS 19	Working rules and regulations	Emplo WS 7	Transferring of employees	Emplo CSS 7	Focused and deliberate planning	Contri 7
		Timely examinations	PerCTS 20	Competitive take home package	Emplo WS 8	A fully paid leave of absence	Emplo CSS 8	Better unit cost management	Contri 8
		Timely release of results	PerCTS 21	Out-of-office team building activities	Emplo WS 9	Award of scholarly titles for academic work	Emplo CSS 9	Freedom to take and manage risks	Contri 9
				Assignment of other duties	Emplo WS 10	Supporting dependan in educational programmes	Emplo CSS 10		

Source:Methodology(Researcher 2013)

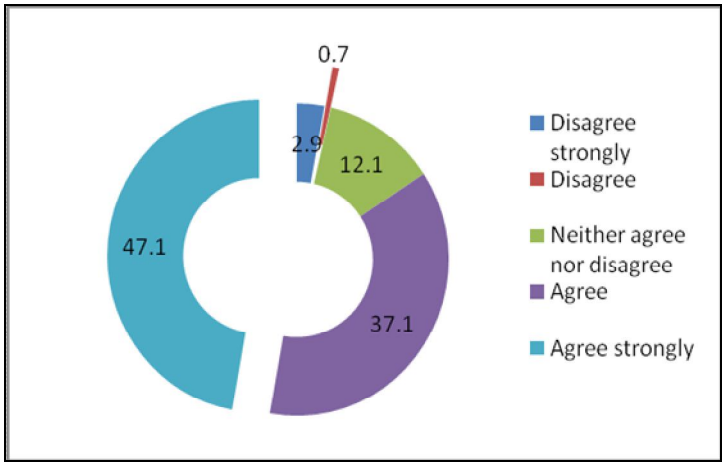

Figure 1: presents findings related to employee recognition and improved service delivery.
Figure 1: Employee recognition and improved service delivery
Source: Field Data (Researcher 2013)

The researcher found that 2.9% of the respondents disagreed strongly, 0.7% disagreed, 12.1% neither agreed nor disagreed, 37.1% agreed, and 47.1% agreed strongly that employee recognition led to improved service delivery. With regard to employee training and whether it increases the level of service delivery, the researcher in table 4. found out that the respondents views were 2.1% disagreed, 6.4% neither agreed nor disagreed, 32.9% agreed, and 58.6% agreed strongly.

Status	Frequency	Percent	Valid Percent
Disagree	3	2.1	2.1
Neither agree nor disagree	9	6.3	6.4
Agree	46	32.4	32.9
Agree strongly	82	57.7	58.6
Total	140	98.6	100.0
Missing	2	1.4	
Total	142	100.0	

Table 4: Employee training and the level of service delivery
Source: Field Data (Researcher 2013)

The researcher presents in figure 2 the respondents view in respect of development of employees and improvement of service delivery, and 1.4% disagreed that employee development leads to improved service delivery, 7.1% neither agreed nor disagreed, 46.4% agreed, and 45.0% agreed strongly.

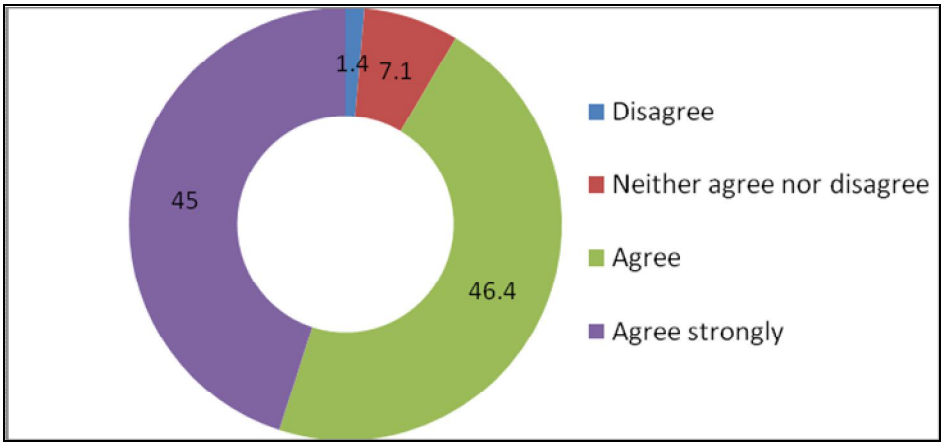

Figure 2: Development of employees and service delivery
Source: Field Data (Researcher 2013)

The views of the respondents on whether improved working facilities leads to better service delivery were collected and the researcher's findings were presented in table 5 and,0.7% disagreed strongly1.4% disagreed8.6% neither agreed nor disagreed 46.0% agreed and 43.2% agreed strongly.

Status	Frequency	Percent	Valid Percent
Disagree strongly	1	0.7	0.7
Disagree	2	1.4	1.4
Neither agree nor disagree	12	8.5	8.6
Agree	64	45.1	46.0
Agree strongly	60	42.3	43.2
Total	139	97.9	100.0
Missing	3	2.1	
Total	142	100.0	

Table 5: Employee working facilities and better service delivery
Source: Field Data (Researcher 2013)

The views of the respondents on whether competitive employee medical cover improves service delivery was reflected as per the frequency and percentages in figure.3 where 2.9% disagreed strongly,5.7% disagreed, 18.6% neither agreed nor disagreed, 42.1% agreed, and 30.7% agreed strongly1.4% .

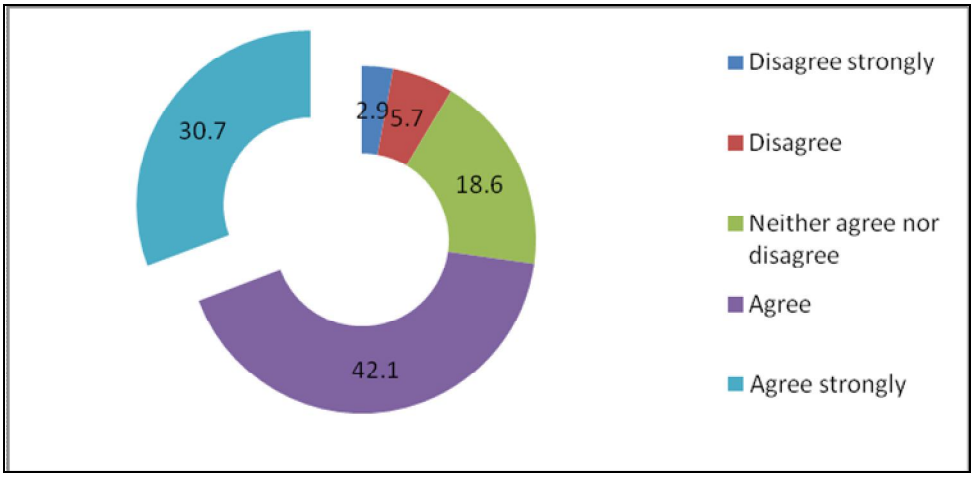

Figure 3: Competitive employee medical cover improves service delivery
Source: Field Data (Researcher 2013)

On whether employee working relations improve service delivery the respondents expressed in table 6 that 3.6% were in disagreement, 12.9% neither agreed nor disagreed, 40.7% agreed, and 42.9% agreed strongly.

Status	Frequency	Percent	Valid Percent
Disagree	5	3.5	3.6
Neither agree nor disagree	18	12.7	12.9
Agree	57	40.1	40.7
Agree strongly	60	42.3	42.9
Total	140	98.6	100.0
Missing	2	1.4	
Total	142	100.0	

Table 6: Employee working relations and service delivery
Source: Field Data (Researcher 2013)

On whether better working rules, and regulations leads to improvement of service delivery the respondents views in figure 4 were 0.7% disagreed strongly 1.4% disagreed, 18.6% neither agreed nor disagreed, 45% agreed, and 34.3% agreed strongly.

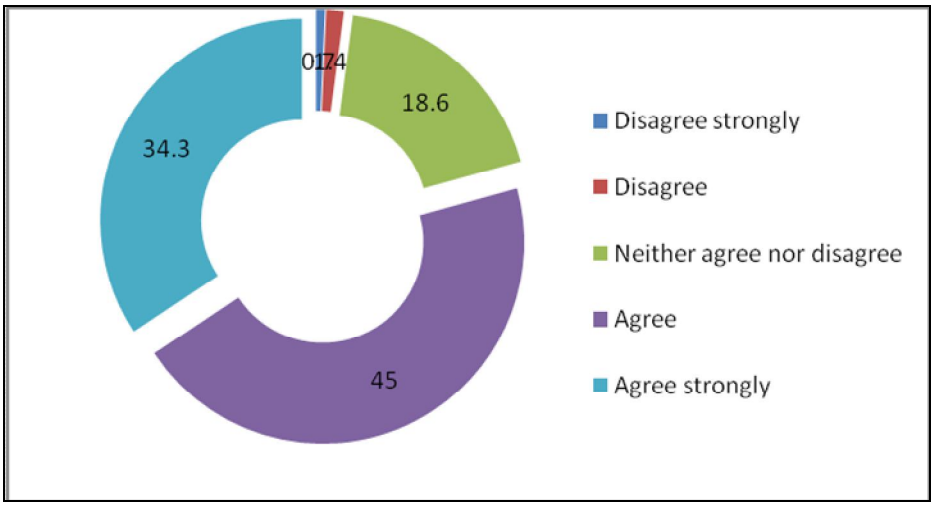

Figure 4: Better working rules, regulations and service delivery
Source: Field Data (Researcher 2013)

On whether a competitive take home package improves service delivery, the respondents views in table 7 were that 5.7% disagreed strongly, 2.1% disagreed, 14.3% neither agreed nor disagreed, 35.7% agreed, and 42.1% agreed strongly.

Status	Frequency	Percent	Valid Percent
Disagree strongly	8	5.6	5.7
Disagree	3	2.1	2.1
Neither agree nor disagree	20	14.1	14.3
Agree	50	35.2	35.7
Agree strongly	59	41.5	42.1
Total	140	98.6	100.0
Missing	2	1.4	
Total	142	100.0	

Table 7: Competitive take home package and improved service
Source: Field Data (Researcher 2013)

The researcher's intention was to find out whether out of office team building activities improves service delivery, the respondents views were expressed in Figure 5 and 2.1% disagreed strongly, 2.9% disagreed, 24.3% neither agreed nor disagreed,45.7%agreed and 25% agreed strongly.

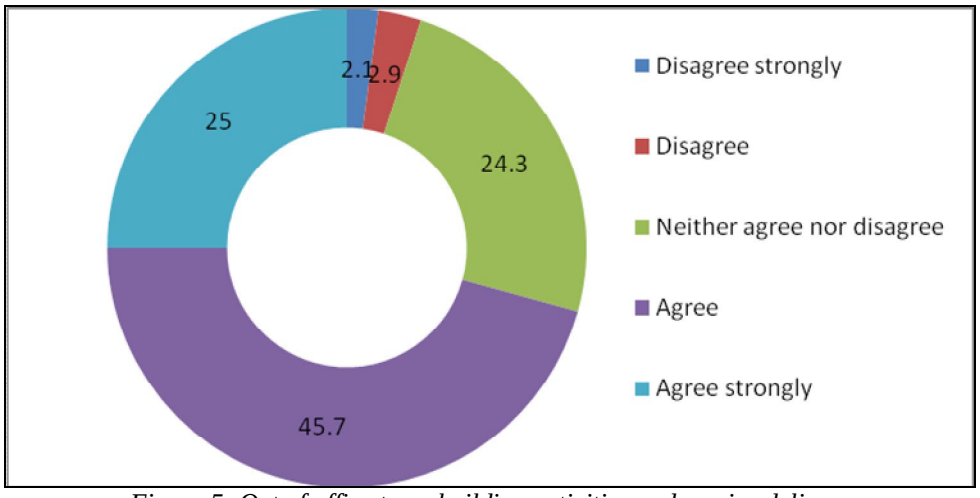

Figure 5: Out of office team building activities and service delivery
Source: Field Data (Researcher 2013)

The researcher wished to find out whether assignment of other duties leads to better service delivery and the respondents expressions were in table 8 were 5% disagreed strongly,9.3% disagreed, 26.4% neither agreed nor disagreed 32.9% agreed, and 26.4% agreed strongly.

Status	Frequency	Percent	Valid Percent
Disagree strongly	7	4.9	5.0
Disagree	13	9.2	9.3
Neither agree nor disagree	37	26.1	26.4
Agree	46	32.4	32.9
Agree strongly	37	26.1	26.4
Total	140	98.6	100.0
Missing	2	1.4	
Total	142	100.0	

Table 8: Assignment of other duties and service delivery
Source: Field Data (Researcher 2013)

3.2. Test of Multicollinearity between Predictors

The study did not suspect a multicollinearity problem in a regression between factors determining administrative work systems and the quality of service delivery at public universities of Kenya. Even though the Pearson correlation test showed a significant relationship between most of the predictors at 90% confidence interval and above, none of the predictors displayed a Pearson correlation equal to or above 0.7 (Table 9).Even though the Pearson correlation test showed a significant relationship between most of the predictors at 90% confidence interval and above, the study did not suspect a multicollinearity problem in a regression between administrative work systems' factors and their corresponding predictors, since none of the latter displayed a Pearson correlation equal to or above 0.7.

3.3. Test of Homogeneity of Variances

The Levene's test confirmed the assumption of equality of error variances between all dependent variables and their corresponding predictors (Table 9).

Variable	F	df1	df2	Sig.	Observation
Tangibles contribute to quality of service offered at the university	0.649	126	12	0.882	Homogeneity
Reliability contribute to quality of service offered at the university	0.562	126	12	0.942	Homogeneity
Responsiveness contribute to quality of service offered at the university	0.364	126	12	0.998	Homogeneity
Assurance contribute to quality of service offered at the university	0.463	126	12	0.983	Homogeneity
Empathy contribute to quality of service offered at the university	1.220	126	12	0.370	Homogeneity

Table 10: Results of the Levene's test of equality of error variances [a, b, c]
Source: Field Data (Researcher 2013)

Notes:

[a] Tests the null hypothesis that the error variance of the dependent variable is equal across groups

[b] Weighted Least Squares Regression - Weighted by Age

[c] Design: Intercept +EmploWS1+EmploWS2+…….+EmploWS10

Levene's test upheld a strong relationship between them based on their homogeneity. Therefore, the study confirmed the assumption that tangibles, reliability, responsiveness, assurance and empathy contribute to the level of service delivery in public universities by easing employee's administrative work systems.

	EmploWS 1	EmploWS 2	EmploWS 3	EmploWS 4	EmploWS 5	EmploWS 6	EmploWS 7	EmploWS 8	EmploWS 9	EmploWS 10
Employee recognition	1.000									
Employee training	0.436***	1.000								
Development of employees	0.395***	0.573***	1.000							
Improved working facilities	0.380***	0.398***	0.393***	1.000						
Competitive medical cover	0.455***	0.277***	0.277***	0.280***	1.000					
Better employee working relations	0.246***	0.333***	0.286***	0.354***	0.518***	1.000				
Working rules and regulations	0.398***	0.312***	0.248***	0.319***	0.446***	0.462***	1.000			
Competitive take home package	0.387***	0.109*	0.077	0.293***	0.489***	0.387***	0.465***	1.000		
Out-of-office team buil activity	0.258***	0.222***	0.269***	0.192**	0.259***	0.247***	0.309***	0.239***	1.000	
Assignment of other duties	0.112*	0.013	0.061	0.010	0.132*	0.014	0.097	-0.042	0.186**	1.000

Table 9: Correlations among administrative work systems' factors a
Source: Field Data (Researcher 2013)

Notes:
***. Correlation is significant at the 0.01 level (2-tailed).
**. Correlation is significant at the 0.05 level (2-tailed).
*. Correlation is significant at the 0.1 level (2-tailed).
[a.]Method: Pearson Correlation

3.4. Model Estimation and Regression Strength Testing

Pearson correlation test confirmed at 90% confidence interval and above that administrative work systems' factors had a bearing on the quality of service delivery at public universities of Kenya (Table 11). Almost all the parameters showed a significant relationship between their predictors and the dependent variables, with exception of few predictants and predictors. For instance, Tangibles (EmploWS 11) were not directly related to improved working facilities (EmploWS 4), as Reliability (EmploWS 12) did not have a significant tie with out-of-office team building activities (EmploWS 9). Similarly, Responsiveness (EmploWS 13) was not statistically related with competitive medical cover (EmploWS 5), competitive take home package (EmploWS 8), and out-of-office team building activities (EmploWS 9). Moreover, the correlation between Assurance (EmploWS 14) and Employee recognition (EmploWS 1) as well as assignment of other duties (EmploWS 10) could not be established at 90% confidence interval. Finally, Empathy (EmploWS 15) and competitive medical cover (EmploWS 5) were not statistically correlated at 90% confidence interval. Nonetheless, it was possible to regress factors measuring the administrative work systems to the quality of service delivery to explain their contribution to performance contracting in public universities.

Results of the tests of between-subjects effects were quite eloquent when it came to probing the hypothesis stating: "employee's administrative work systems have a positive effect on the level of service delivery in public universities in Kenya". Table 12 depicts that medical cover and working relations are the main variables explaining the level of service offered at the university. Even though six other explanatory variables were found significant in explaining the level of service at selected universities, medical cover and working relations alone significantly predicted it by the availability of tangibles, by the reliability, responsiveness, assurance and empathy of staff members.

Variables	*EmploWS 1*	*EmploWS 2*	*EmploWS 3*	*EmploWS 4*	*EmploWS 5*	*EmploWS 6*	*EmploWS 7*	*EmploWS 8*	*EmploWS 9*	*EmploWS 10*
EmploWS 11	0.289***	0.233***	0.286***	0.085	0.238***	0.225***	0.272***	0.274***	0.112*	0.154**
EmploWS 12	0.317***	0.350***	0.409***	0.159**	0.153**	0.253***	0.267***	0.114*	0.040	0.214***
EmploWS 13	0.218***	0.367***	0.328***	0.229***	0.110	0.249***	0.200***	0.046	0.096	0.140**
EmploWS 14	0.091	0.273***	0.396***	0.205***	0.085***	0.298***	0.208***	0.127*	0.214***	0.060
EmploWS 15	0.059	0.184**	0.300***	0.155**	0.074	0.127*	0.125*	0.123*	0.174**	0.157**

Table 11: Correlation between administrative work systems and service delivery

Notes:
***. Correlation is significant at the 0.01 level (2-tailed)
**. Correlation is significant at the 0.05 level (2-tailed)
*. Correlation is significant at the 0.1 level (2-tailed)
[a.]Method: Pearson Correlation

Parameter	**Tangibles [a.]**		**Reliability [b.]**		**Responsiveness[c.]**		**Assurance [d.]**		**Empathy [e.]**	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Recognition	0.82	0.512	3.739	0.007**	0.221	0.926	0.602	0.66	1.229	0.304
Training	0.81	0.49	2.458	0.068*	2.306	0.082*	0.831	0.48	2.413	0.071
Development	4.11	0.009*	10.108	0.000**	1.613	0.191	0.641	0.59	4.825	0.004
Medical cover	2.22	0.072*	2.368	0.058*	3.173	0.017*	2.169	0.07	1.308	0.273
Working relations	3.28	0.024*	10.43	0.000**	3.62	0.016*	4.802	0.00	5.108	0.003
Rules and	1.41	0.236	4.587	0.002**	1.319	0.268	1.265	0.28	0.699	0.595
Take-home	1.50	0.206	2.481	0.049**	0.411	0.801	2.861	0.02	1.549	0.194
Out-of-office	1.30	0.275	3.408	0.012**	1.281	0.283	1.994	0.10	1.735	0.149
Corrected Model	2.66	0.000	4.682	0.000	2.438	0.000	2.109	0.00	2.715	0.000

Table 12: Between-subjects effects for administrative work systems and service delivery

Notes:

*Significance at 10%; Confidence intervals of 90%
**Significance at 5%; Confidence intervals of 95%
***Significance at 1%; Confidence intervals of 99%
a. R Squared = .514 (Adjusted R Squared = .321)
b. R Squared = .650 (Adjusted R Squared = .511)
c. R Squared = .491 (Adjusted R Squared = .290)
d. R Squared = .455 (Adjusted R Squared = .239)
e. R Squared = .518 (Adjusted R Squared = .327)

The F test confirmed at least at 90% confidence interval that a strong relationship existed between the two variables and that it was explained by factors related to administrative work systems rather than by mere chance. First, "reliability" significantly contributed to level of service delivery at the university (Adjusted R^2=0.511; F=4.682; Sig=0.000) through recognition (F= 3.739; Sig.= 0.007), training (F= 2.458; Sig.= 0.068), development (F= 10.108; Sig.= 0.000), medical cover (F= 2.368; Sig.= 0.058), working relations (F= 10.43; Sig.= 0.000), rules and regulations (F= 4.587; Sig.= 0.002), take home package (F= 2.481; Sig.= 0.049) and out-of office activities (F= 3.408; Sig.=0.012). Secondly, "empathy" or individualized caring and mentorship (Adjusted R^2= 0.327; F= 2.715; Sig= 0.000) determined the level of service offered at the university by means of training (F= 2.413; Sig.= 0.071), development (F= 4.825; Sig.= 0.004) and working relations (F= 5.108; Sig.= 0.003). Thirdly, "tangibles" significantly contributed to the level of service delivery at the university (Adjusted R^2= 0.321; F= 2.668; Sig= 0.000) via development (F= 4.113; Sig.= 0.009), medical cover (F= 2.223; Sig.= 0.072) and working relations (F= 3.285; Sig.= 0.024). Also, a significant contribution of "responsiveness" (Adjusted R^2= 0.290;F=2.438;Sig=0.000*)* was confirmed by training (F= 2.306; Sig.= 0.082), medical cover (F= 3.173; Sig.= 0.017) and working relations (F= 3.62; Sig.= 0.016). Finally, the contribution of "assurance" or the ability to inspire confidence (Adjusted R^2= 0.239;F= 2.109; Sig= 0.000) to the level of service delivery at the university was largely explained by medical cover (F= 2.169; Sig.=0.078) and working relations (F= 4.802; Sig.= 0.004).

In most of the cases the *t* test indicated that development of employees was disagreed upon in respect of service delivery, competitive employee medical cover was neither agreed on or disagreed on in respect of service delivery, better employee working relations was neither agreed on or disagreed on in respect of service and a competitive take home package was disagreed upon as a measure of service delivery. These were the most significant parameters among different categories assessed within each variable retained in table 13.

Parameter	Tangibles		Reliability		Responsiveness		Assurance		Empathy	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Recognition[=1]	-1.233	0.221	-3.781***	0.000	-0.449	0.654	0.46	0.646	-1.716*	0.089
Training[=2]	1.261	0.21	2.48**	0.015	0.561	0.576	-0.025	0.98	1.005	0.317
Training[=3]	-0.583	0.561	-0.778	0.438	-2.413**	0.018	-1.535	0.128	-1.446	0.151
Training[=4]	-0.666	0.507	-0.19	0.85	-1.3	0.197	-0.798	0.427	-2.265**	0.026
Development[=2]	-2.295**	0.024	-4.521***	0.000	-2.087**	0.04	-1.171	0.245	-2.423**	0.017
Development[=3]	0.743	0.459	1.189	0.237	-0.05	0.961	0.249	0.804	2.491**	0.014
Development[=4]	-1.809*	0.074	-1.65*	0.100	-0.535	0.594	-0.411	0.682	0.509	0.612
Medical cover[=1]	-2.071**	0.041	-0.393	0.695	0.035	0.972	0.088	0.93	-0.398	0.692
Medical cover[=2]	1.43	0.156	2.084**	0.04	1.304	0.195	2.476**	0.015	1.598	0.113
Medical cover[=3]	0.286	0.776	1.797*	0.075	2.478**	0.015	1.103	0.273	1.877*	0.063
Working relations[=3]	-2.644***	0.01	-4.954***	0.000	-3.249***	0.002	-2.916***	0.004	-3.746***	0.000
Rules and regulations[=2]	-1.225	0.224	-3.861***	0.000	-1.429	0.156	-1.207	0.23	-0.976	0.331
Take-home package[=2]	-2.14**	0.035	-2.878***	0.005	-0.522	0.603	-3.316***	0.001	-1.761*	0.081
Out-of-office activities[=2]	0.761	0.448	2.739***	0.007	-0.779	0.438	0.933	0.353	0.149	0.882
Out-of-office activities[=3]	-1.533	0.128	-1.719*	0.089	-1.516	0.133	-1.648*	0.100	-2.235**	0.028
Out-of-office activities[=4]	-1.796*	0.076	-1.028	0.307	0.107	0.915	0.256	0.798	-1.968*	0.052

Table 13: Administrative work system parameters explaining the level of service delivery at selected universities

Notes**:**

*Significance at 10%; Confidence intervals of 90%
**Significance at 5%; Confidence intervals of 95%
***Significance at 1%; Confidence intervals of 99%

Thence, development of employees, competitive medical cover, better employee working relations and a competitive take home package were finally the most significant categories that could explain almost all the aspects of the level of service offered at the

university based on the administrative work systems. This gave an indication of the reliance of the level of service delivery on the general treatment of the personnel.

3.5. Discussion on Administrative Work Systems

Meeting challenges to deliver outputs and outcomes while simultaneously preserving valued process and academic discourse is a complex balancing act (Houston et al., 2006). The lack of such good care may be explained by an increasing tendency to assign different duties to lecturers, including various university management activities. Since these lecturers are charged with the duty of teaching, research and publications, management activities become a burden and tend to undermine good service delivery at academic level. This increased responsibility has led to more pressure on the lecturers to deliver in the different positions in which they serve. The different styles of leadership and their appropriate usage have been much debated (Schein, 1988; Bensimon, 1989; Middlehurst, 1993; Bargh et al., 2000).Barnett (2003) felt leadership could help to promote ideological inclusivity through opening the debate between the competing ideologies of research and teaching. Through various interactions, conferences, seminars, workshops and exchange programmes the teaching academic members of staff are always being developed. The teaching staff members felt that a proper interaction between stakeholders as witnessed in classes, meetings, symposiums, conferences, seminars, workshops and graduation ceremonies led to improvement in the quality of service.

4. Summary and Conclusion

The study also upheld at least at 90% confidence interval the hypothesis that tangibles, reliability, responsiveness, assurance and empathy contribute to the level of service delivery in public universities by easing employee's administrative work systems. Medical cover and working relations were the main administrative systems explaining the level of service offered at selected public universities of Kenya. It shows that employees' training (92%), development of employees (91%), working facilities (89%) and employees' recognition (84%) are extremely important for improving their performance. Moreover, university lecturers need Better working rules and regulations (79%) as well as a competitive take home package (74%) to enable them achieve their targets. In respect of how employee's administrative work systems contributed to service delivery in public universities in Kenya, it can be concluded that the level of service delivery was explained by recognition of academic staff members, training of academic teaching staff, medical cover for staff, working relations in the universities, rules and regulations of the universities, take home package and out-of office activities, development of staff members. These variables were not equally the same in explaining the level of service delivery in the selected universities and therefore a call to the management of the universities to put enough efforts so as to establish the root cause of the weak variables and consequently strengthen them for purposes of improving overall service delivery. It should however be noted that improved employee working facilities, involvement in out-of-office team building activities and assignment of other duties was not considered as contributing to the level of service delivery and this can be explained by the experiences undergone by academic teaching staff members in which case their offices are of shared nature, again more often than not they are not able to participate in team building activities due to the match needed time in disseminating knowledge, carrying out academic research and publishing.

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