

MANAGEMENT TECHNIQUES OF PUBLIC UNIVERSITIES IN THE NIGER DELTA REGION: IMPLICATIONS FOR UNIVERSITY ADMINISTRATION IN NIGERIA

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Abstract

The study examined the management techniques of public universities in the Niger Delta Region: Implications for university administration in Nigeria. The design for the study was a descriptive survey. A sample of 350 faculty and administrative staff (152 and 298 from State and Federal Universities) which represented 43.4% and 85.1% was selected through the stratified random sampling techniques in four (4) faculties of education, management sciences, social sciences and humanities. Mean, standard deviation and rank order were used to answer five research questions while t-test was used to test three null hypotheses at 0.05 level of significance. Result revealed that Management By Objectives (MBO), Total Quality Management (TQM) and Team Management (TM) were the techniques of management preferable to public universities in the Niger Delta Region. t-test analysis of three null hypotheses indicated that they were all retained (not rejected). The study concluded that while MBO, TQM and TM were preferable to public universities in the NDR, PERT, PPBS and TSAT were not due to inadequate infrastructure to apply them. The following among others were therefore recommended; university administrators should be properly trained in management techniques: seminars, workshops and conferences should be regularly organized for university managers on techniques of management: adequate funding and infrastructure should be provided for better application of PERT, PPBS and TSAT and appointments into university management should take cognizant of qualifications in techniques of management.

Key Concepts: Management techniques, Public universities, Niger Delta, University Administration.

Introduction

Since the advent of western education, there has been sustained increase in student's enrollment over the years. This no doubt calls for reliable administrative techniques and control measures for effective management of universities to achieve set goals. It is generally believed that the problems of a university system are quite different from those of other institutions hence do not necessarily require the application of general principles of management. It is common knowledge that educational institutions are unique and are not profit-oriented like other public enterprises. Products of educational institutions are human beings who cannot be equated for theoretical reasons with inanimate objects. Yet, lack of knowledge of the problems of other institutions and organizations and principles which guide their operations can account for ineffectiveness and low productivity in the school system. That job specification may vary from one managerial position to another, and that circumstance and environment can influence managerial functions are no doubt generally acceptable cliches, this is however not to say that the functions and problems are universal. The scope of authority, the environment and the types of problems that confront different professional managers may differ but as

professionals, they all occupy critical positions to take vital decisions and obtain results by establishing a conducive environment that would ensure the achievement of organizational goals.

It is generally accepted that every university administrator is concerned with the problems of quality of products (graduates). And with the present problems of enrollment explosion, certain crises have crept into the nations universities. These include overcrowded classrooms, inadequate, poor and obsolete equipment, lack of textbooks, inadequate funding and lack of systematic planning. These have given rise to poor quality of graduates and ineffective control of universities. Decisions are not based on rational management techniques, which in turn have affected the quality of decisions and hence managerial controls. Control is a very crucial aspect of management of any organization. Competence in this activity differentiates the manager from non-manager and an effective manager from ineffective ones. Therefore, the functional effectiveness of the Vice Chancellors in administration of universities is dependent on some management techniques. Different management techniques available for the day-to-day running of schools have been highlight by Wike-Okas (2005). They include Management by Objectives (MBO), Total Quality Management (TQM), Team Management (TM), Programme Evaluation Review technique (PERT), Programme, Performance Budgetary System (PPBS) and Time Series Analysis Technique (TSAT).

MBO is a management technique of achieving result through a process by which supervisors and their subordinates participate jointly in setting objectives, determining activities to be carried out to achieve objectives, setting targets for realization of set objectives and establishing procedures for evaluation of performance of staff with respect to set objectives. MBO is a result-oriented approach to management and its effectiveness is measured technique, in terms of goals achievement. In this management technique, the superior-subordinate managers of an organization jointly identify its common goals, define each individual major areas of responsibility in terms of result expected and use these measures as guides for operating the unit and appraising the contribution of its members. MBO is a strategy of planning and getting result in a direction that management wishes to take while meeting the goals and needs of participants. The university for instance is established for a purpose – primarily for teaching and research. To achieve this purpose, the achievement of other secondary organizational objectives becomes expedient. Therefore, a number of objectives by faculties, institutions, departments and even staff manifest whenever the primary purpose of teaching and research is put into focus. MBO application in decision – making in the university is of immense benefit as it protects the institution from goal displacement. It decreases ambiguity and conflicts between university administrators and the faculties as objectives become clearer. From available empirical evidences, most studies on MBO are, mainly foreign. This may be due to dearth of materials for study on MBO in Nigeria. This has reinforced the need for a study on MBO as a management and control technique in Nigeria universities.

Total Quality Management (TQM) on the other hand provides a framework that integrates many positive developments in education and this includes teaching, site based management, co-operative learning and outcome – based education. This management technique is based on four integral sets of fundamental tenets that the organization focuses on.

Firstly, on clients and costumers – i.e. the students and teachers, the organization should ensure continued improvement, personally and collectively. The organization should operate as a system; hence activities of people within the system should be regarded as on-going process. The success of TQM is the responsibility of management. In other words, school administrators should provide visible and constant dedication to make TQM principles work in education institutions. TQM assumes an acceptable managerial tree for improving total organizational efficiency and effectiveness, which is a complete departure from management by the rule-of-the-thumbs.

Team Management (TM) is a management technique that requires the need to bridge the communication gaps particularly in very large organizations. It creates awareness of the need for effective communication in an organization to enhance productivity, motivation and staff morale .T.M also develops in all personnel a sense of belonging. Team management requires that members satisfy the need to be heard, the need to contribute and the need to be recognized. Team management offers managers the necessary insights to recognize the potentials of members whose contributions could be used to accomplish a given task and take corrective measures where necessary. It avoids waste of human resources at all levels of the organization, reduces frustration and demoralization since it helps to understand the need to develop team spirits in the organization thereby building a sense of collective responsibility. TM creates an open participative and response climate which permits the team to adopt problem – solving approach to (real) issues and remove problems (blockage), which prevent team effectiveness.

Theoretical Framework

The theoretical framework for this study is derived from the System Holistic Approach theory of Demming (1994) which stated that a system is a network of interdependent components that work together to accomplish the aim of that system (organization). Every organization should therefore be treated in a holistic manner. In managing any part of the organization, the administrator should consider the effects of changes on all other parts of the organization. The staff, customers and the suppliers should therefore be treated as integral parts of the system. All these parts of the system stand to benefit if the organization is properly managed. Organizations can achieve successful change to more relevant ways only by doing things in a total systems context. System Holistic Approach is therefore a complete management system. For its principles to work systematically, they should be built on the entire management system. Therefore, just a few of these principles cannot be used neither should they be applied to just a few parts of the organization and hope to succeed in building a total system. Another system holistic approach characteristics is functional integration which seeks to place people in new organizational contexts that creates new roles, new responsibilities and new relationships in order to influence their behaviors towards rendering quality service. Employees are powerfully affected by the organizational principles that shape their roles, responsibilities and feelings of fulfillment. These roles also underscore the mutual recognition of other peoples roles in the organization and the need to deliver services internally to agreed standards. That is why team work is a vital aspect of the total quality process. Team is

described as the engine of quality improvement because it makes quality management to work. Teamwork is an essential part of any organization since it helps to build up trust, improves communication and develops interdependence. Educational organizations use teams for ad-hoc assignments and other non-recurrent tasks. Teams have also been deployed for curriculum design and delivery functions such as in curriculum development committee, team teaching and others; and in management functions such as in problem – solving teams, participatory decision – making teams, conflict resolution team and other ad-hoc teams constituted to carry out a wide range of tasks. Teams therefore provide educational organizations a strong platform with which to build a TQM culture.

Teams are made up of individuals with different personalities, ideas, strength and weaknesses. They also bring different levels of enthusiasm for and need dispositions and demands from their jobs. It is the aggregate synergy that emerges from these differences among the group, working together in harmony that gives rise to quality improvement in the service rendered by the team. It is therefore essential that teamwork extends, penetrates and permeates educational organizations, at all levels and across all functions. For any team to become effective, it should consist of academic, non-academic and other support staff.

Statement of the Problem

There are series of second generation problems in university administration in Nigeria that may not have only reared their ugly heads but also developed tentacles. There may have arisen the challenges of inadequate funding, brain drain, staff shortages, relevance, efficiency, quality of management, pressure for higher education from students in the face of inadequate infrastructure /facilities, equity in university governance, university and government relations. These problems may have so deteriorated that urgent actions need not be further delayed. Ineffective management is perhaps the most important but the most elusive aspects of these generation problems. Mismanagement of education is a much talked about phenomenon yet it hardly hits the headlines and it is deemed responsible for most of the national ills (Okeke, 2001). Competency in management differentiates managers from non-managers and more importantly effective administrators from non-performers. There is the need for improved, administrative practices among university administrators. Most university administrators, no doubt lack appropriate management skills, hence more often resort to traditional rule-of-the-thumbs approach of doing things. This approach has created more problems such as inability to delegate functions, poor supervision of personnel, conflicts in allocation of human and material resources and lack of participative decision – making process. Inability to effectively apply appropriate techniques of management has given rise to alarming rate of wastages such as unemployment of school leavers, high incident of dropouts and mass failure of students in public examinations. This study therefore attempted to investigate the management techniques that are deployed in universities in the Niger Delta Region of Nigeria.

Purpose of the Study

The specific objectives of this study included;

- 1) To identify the management techniques of public universities in the Niger Delta Region of Nigeria.

- 2) To determine whether there is difference in the mean ratings of federal and state universities preferences for management techniques in the Niger Delta Region of Nigeria.
- 3) To determine whether there is a difference in the mean ratings of male and female staff preferences for management techniques in public universities in the Niger Delta Region of Nigeria.
- 4) To ascertain whether there is a difference in the mean ratings of experienced and inexperienced staff preferences for management techniques in public universities e in the Niger Delta Region of Nigeria.
- 5) To ascertain whether there is a difference in the mean ratings of staff with educational management qualifications and those without management qualifications preferences for management techniques in public universities in the Niger Delta Region of Nigeria.

Research Questions

- 1) What management techniques are most preferable to public universities in the Niger Delta Region of Nigeria?
- 2) To what extent do federal and state universities prefer management techniques in the Niger Delta Region of Nigeria?
- 3) To what extent do experienced and inexperienced staffs prefer management techniques in public universities in the Niger Delta Region of Nigeria.
- 4) To what extent do male and female staffs prefer management techniques in public universities in the Niger Delta Region of Nigeria?
- 5) To what extents do staff with educational management qualifications and those without management qualifications prefer management techniques in public universities in the Niger Delta Region of Nigeria?

Hypotheses

- 1) **HO₁**: There is no significant difference in the mean ratings of federal and state universities preferences for management techniques in the Niger Delta Region of Nigeria.
- 2) **HO₂**: There is no significant difference between the mean ratings of experienced and inexperienced staff preferences for management techniques in public universities in the Niger Delta Region of Nigeria.
- 3) **HO₃**: There is no significant difference between the mean ratings of staff with educational management qualification and those without educational management qualifications preferences for management techniques in public universities in the Niger Delta Region of Nigeria.

Methodology

The design for this study was a descriptive survey. The population consisted of nine federal and state universities in the Niger Delta Region out of which five were chosen. The sample for the study comprised of 350 senior faculty and administrative staff (152 and 298 from state and federal universities) which represented 43.4% and 85.1% respectively from each stratum. The sample was selected through the stratified random sampling technique in four

faculties of education, management sciences, social sciences and humanities. The instruments for this study were a self-constructed 20 – items questionnaire titled “Management Techniques of Universities Questionnaire” (MATOUQ) and interviews. Interview schedule was used to elicit more information from some university administrative and academic staff such as Deputy Vice Chancellors, Registrars, Deans, Directors of Academic units, Directors of Academic planning, Heads of Department, Provosts of Colleges, ASUU Chairmen and some members of the bursary and Governing councils. The questionnaire is made up of two sections. Section one is made up of demographic data of sex, type of university, age, experience and qualifications whereas section 2, elicited data to answer five research questions and test three null hypotheses. Scoring was based on four-point scale of very often (V.O) – 4 points, often (O) – 3 points, Seldom(s) – 2 points and never (N) – 1 point. The questionnaire was pilot – tested using 50 academic staff outside universities studied which yielded a Cronbach alpha coefficient of 0.70, signifying high internal consistency and reliability. Out of 350 questionnaires distributed by the researcher, 328 were retrieved. The data were collated, tallied and arranged in tables. Five research questions were answered using mean, standard deviation and rank order whereas three null hypotheses were tested at 0.05 level of significance using t-test analysis. An average mean of 2.50 was taken as the criterion mean.

Result

Research Question 1: What management techniques are preferable to public universities in the Niger Delta Region of Nigeria?

Table 1: Mean ratings and rank order of management techniques preferable to public university administrators in the Niger Delta Region of Nigeria.

	Management Techniques	N	Scores	\bar{X}	Rank order	Remarks
1	Management By Objectives (MBO)	328	922	2.81	3 rd	Agreed
2	Total Quality Management (TQM)	328	1066	3.25	2 nd	Agreed
3	Team management (TM)	328	1204	3.67	1 st	Agreed
4	Programme Evaluation Review Techniques (PERT)	328	624	1.90	5 th	Disagreed
5	Programme Performance Budgetary System (PPBS)	328	742	2.26	4 th	Disagreed
6	Time Series Analysis Techniques (TSAT)	328	452	1.37	6 th	Disagreed

Source: Survey Data (2016).

Scale:

1.00 – 2.49 (Disagreed)

2.50 – 4.00 (Agreed)

Data in table I reveal that items 1,2 and 3 have weighted mean ratings above the criterion mean of 2.50 and are adjudged as the most preferable management techniques among university administrators. On the contrary, items 4,5 and 6 with weighted mean ratings of 2.26, 1.90 and 1.37, below the criterion mean of 2.50 are denied agreement as management techniques among universities in the Delta Region. In descending order of magnitude,

techniques of management include: Team Management (3.67), Total Quality Management (3.25), Management By Objective (2.8), Programme performance budgetary system (2.26), Programme Evaluation Review Technique (1.90) and Time Series Analysis Technique (1.37). TM, TQM and MBO are therefore the management techniques that are preferable to universities in the NDR of Nigeria.

Research Question 2: What management techniques are preferable to federal and state universities in the Niger Delta Region of Nigeria?

Table 2: Mean ratings, standard deviation and rank order of management techniques of federal and state universities in the Delta Region.

	Management Techniques	X_1	SD_1	X_2	SD_2	$\bar{X}_1 \bar{X}_2$	Rank order	Remarks
1	Management By Objectives (MBO)	2.95	0.64	2.74	0.32	2.90	3 rd	Agreed
2	Total Quality Management (TQM)	3.06	0.72	3.22	0.42	3.14	2 nd	Agreed
3	Team Management (TM)	2.87	0.74	3.82	0.25	3.35	1 st	Agreed
4	Programme Evaluation Review Technique (PERT)	2.20	0.80	2.10	1.04	2.15	5 th	Disagreed
5	Programme Performance Budgetary System (PPBS)	2.05	0.84	2.40	0.29	2.22	4 th	Disagreed
6	Time Series Analysis Technique (TSAT)	1.50	0.92	2.11	0.94	1.81	6 th	Disagreed
	Criterion Mean (\bar{N}) 2.50	2.38	0.78	2.73	0.54	2.60		Agreed

Source: Survey Data (2016)

Legend:

X_1 = Mean ratings of federal universities

SD_1 = Standard Deviation 1

X_2 = Mean ratings of state universities

SD_2 = Standard Deviation 2

$\bar{X}_1 \bar{X}_2$ = Weighted mean.

Scale:

1.00 – 2.49 (Disagreed)

2.50 – 4.00 (Agreed)

Data in table 2 reveal that (1) Team Management (TM) (2) Total Quality Management (TQM) and (3) Management By Objectives (MBO) with weighted mean ratings of 3.35, 3.14 and 2.90 which are above the criterion mean of 2.50 are preferable to federal and state universities. In the descending order of magnitude, the management techniques are ranked as follows: Team Management (TM) 1st, Total Quality Management (TQM) 2nd, Management By Objectives (MBO) 3rd, Programme Performance Budgetary System (PPBS) 4th, Programme Evaluation Review Technique (PERT) 5th, and Time Series Analysis (TSAT) 6th. The techniques of management preferable to federal and state universities are therefore Team Management (3.35), Total Quality Management (3.14) and Management By Objectives (MBO) (2.90).

Research Question 3: To what extent does experienced and inexperienced staff prefer management technique in public universities in the Delta Region of Nigeria?

Table 3: Mean ratings, standard deviation and rank order of experienced and inexperienced staff preferences for management techniques in universities in the Niger Delta Region, Nigeria.

	Management Techniques	X_1	SD_1	X_2	SD_2	$\bar{X}_1 \bar{X}_2$	Rank order	Remarks
1	Management By Objectives (MBO)	3.15	0.57	2.54	1.02	2.85	2 nd	Agreed
2	Total Quality Management (TQM)	2.57	1.12	2.50	0.25	2.54	3 rd	Agreed
3	Team Management (TM)	3.04	0.44	3.10	0.42	3.07	1 st	Agreed
4	Programme Evaluation Review Technique (PERT)	2.15	0.90	2.10	0.55	2.13	4 th	Disagreed
5	Programme Performance Budgetary System (PPBS)	2.18	1.04	1.86	0.92	2.02	5 th	Disagreed
6	Time Series Analysis Technique (TSAT)	1.52	0.92	2.42	1.10	1.97	6 th	Disagreed

Source: Survey Data (2016)

Legend:

X_1 = Mean ratings of experienced staff
 SD_1 = Standard Deviation 1
 X_2 = Mean ratings of inexperienced staff
 SD_2 = Standard Deviation of 2

Scale:

1.00 – 2.49 (Disagreed)
 2.50 – 4.00 (Agreed)

$\bar{X}_1 \bar{X}_2$ = Weighted Mean of experienced and inexperienced staff.

Data in table 3 indicate that experienced staff prefer Management By Objectives (MBO) (3.15) 1st, Team Management (TM) (3.04) 2nd and Total Quality Management (TQM) (2.85) 3rd. Inexperienced staff however prefer Team Management (TM) (3.10) 1st, Management By Objectives (MBO) (2.54) 2nd and Total Quality Management (TQM) (2.50) 3rd as management techniques. Taken as a whole, pooled means show that Team Management (TM), Management By Objectives (MBO) and Total Quality Management (TQM) with means above the criterion mean of 2.50 are the preferable management techniques to experienced and inexperienced staff.

Research Question 4: To what extent do male and female staffs prefer management techniques in public universities in the Niger Delta Region of Nigeria?

Table 4: Mean ratings, Standard Deviation and rank order of male and female staff preferences for management techniques in public Universities in the Niger Delta Region of Nigeria.

	Management Techniques	X_1	SD_1	X_2	SD_2	$\bar{X}_1 \bar{X}_2$	Rank order	Remarks
1	Management By Objectives (MBO)	2.55	1.17	3.02	1.11	2.79	3 rd	Agreed
2	Total Quality Management (TQM)	3.01	0.92	3.10	0.64	3.06	2 nd	Agreed
3	Team Management (TM)	3.41	0.10	2.95	0.98	3.18	1 st	Agreed
4	Programme Evaluation Review Technique (PERT)	2.42	0.57	2.10	1.12	2.26	4 th	Disagreed
5	Programme Performance Budgetary System (PPBS)	1.44	1.12	1.10	0.90	1.27	6 th	Disagreed
6	Time Series Analysis Technique (TSAT)	2.20	0.95	1.25	0.87	1.73	5 th	Disagreed

Source: Survey Data (2016)

Legend:	Scale:
X_1 = Mean ratings of male staff	1.00 – 2.49 (Disagreed)
SD_1 = Standard Deviation I	2.50 – 4.00 (Agreed)
X_2 = Mean ratings of female staff	
SD_2 = Standard Deviation of 2	
$\bar{X}_1 \bar{X}_2$ = Pooled Mean of male and female staff.	

Data in table 4 show that while the male staff prefer Team Management (TM) (3.41) 1st, Total Quality Management (TQM) (3.01) 2nd and Management By Objectives (MBO) (2.55) 3rd as management techniques. Others such as programmes Evaluation Techniques (PERT) (2.42) 4th, Time Series Analysis (TSAT) (2.20) 5th and Programme, Performance Budgetary System (PPBS) 6th are not preferred. Female staff however prefer Total Quality Management (TQM) (3.10) 1st, Management By Objectives (MBO) (3.02) 2nd and Team Management (TM)(2.95) 3rd as Management Techniques. Pooled mean however indicate in the following descending order of magnitude that Team Management (TM) (3.18) 1st, Total Quality Management (TQM) (3.06) 2nd and Management By Objective (MBO) (2.79) 3rd are the techniques of management preferred by the male and female staff.

Research Question 5: To what extent do staff with educational management qualifications and without management qualifications prefer techniques of management in public universities in the Niger Delta Regions of Nigeria?

Table 5: Mean ratings, standard deviation and rank order of staff with educational management qualifications and those without management qualifications preferences for techniques of management in public universities in the Niger Delta Region of Nigeria.

	Management Techniques	X_1	SD_1	X_2	SD_2	$\bar{X}_1 \bar{X}_2$	Rank order	Remarks
1	Management By Objectives (MBO)	3.00	0.94	2.94	0.55	2.97	2 nd	Agreed
2	Total Quality Management (TQM)	3.14	0.61	3.18	1.08	3.16	1 st	Agreed
3	Team Management (TM)	2.58	1.10	3.10	0.94	2.84	3 rd	Agreed
4	Programme Evaluation Review Technique (PERT)	1.54	0.86	2.26	0.72	1.90	6 th	Disagreed
5	Programme Performance Budgetary System (PPBS)	2.10	0.90	1.92	0.52	2.01	4 th	Disagreed
6	Time Series Analysis Technique (TSAT)	1.94	1.04	2.01	0.82	1.98	5 th	Disagreed

Source: Survey Data (2016)

Legend:	Scale:
X_1 = Mean ratings of staff with management Qualifications	1.00 – 2.49 (Disagreed)
SD_1 = Standard Deviation I	2.50 – 4.00 (Agreed)
X_2 = Mean ratings of staff without management qualifications	
SD_2 = Standard Deviation of 2	
$\bar{X}_1 \bar{X}_2$ = Pooled Mean of male and female staff with educational management qualifications and without management qualifications.	

Data in table 5 indicate that staff with education management qualifications preference for techniques of management is in the following descending order of magnitude. Total Quality Management (TQM) (3.14) 1st, Management By Objectives 3.00 2nd, Team Management (TM) (2.58) 3rd, Programme Performance Budgetary System (PPBS) (2.10) 4th, Time Series Analysis Technique (TSAT) (1.94) 5th and Programme Evaluation Review Techniques (PERT) (1.54) 6th whereas staff without management qualifications preferences are in the following descending order of magnitude; Total Quality Management TQM (3.18) 1st, Team Management (TM) (3.10) 2nd, Management By Objectives MBO (2.26) 4th, Time Series Analysis (TSAT) (2.01) 5th and Programme Performance Budgetary System PPBS (1.92) 6th. The pooled mean of 3.16 (1st), 2.97 (2nd and 2.84 (3rd) which are above the criterion mean of 2.50 for Total Quality Management (TQM), Management By Objectives (MBO) and Team Management (TM) are preferable to staff with and without educational management qualifications.

Ho₁: There are no significant differences in the mean ratings of federal and state universities preference for management techniques in the Niger Delta Region of Nigeria.

Table 6: t-test analysis of the differences in the mean ratings of federal and state universities preferences for management techniques in the Niger Delta Region, Nigeria.

University	N	\bar{X}	SD	df	t-cal	t-crit	Decision
Federal Universities	214	2.45	0.48	326	1.02	1.96	**NS
State Universities	114	3.10	1.01				

Source: Survey Data (2016).

** NS = Not significant.

Data in table 6 indicate that t-cal (1.02) is lower than the t-crit (1.96) at 326 degree of freedom (df) of 0.05 significance suggesting that the mean ratings of federal and state universities do not sufficiently differ on techniques of management. Null hypothesis one (Ho₁) is therefore not rejected.

Ho₂: There is no significant difference in the mean ratings of experienced and inexperienced staff preferences for management techniques in universities in universities in the Niger Delta Region of Nigeria.

Table 7: t-test analyses of the differences in the mean ratings of experienced and inexperienced staff preferences for techniques of management in universities in the Niger Delta Region of Nigeria.

Staff (Respondent)	N	\bar{X}	SD	df	t-cal	t-crit	Decision
Inexperienced staff	186	3.05	0.72	326	0.82	1.96	**NS
Experienced staff	142	2.96	0.64				

Source: Survey Data (2016).

** NS = Not significant.

Data in table 7 suggest that t-cal (0.82) is less than t-crit (1.96) at degree of freedom (df) 326 of 0.05 level of significance, indicating that there is no significant difference in the mean ratings of experienced and inexperienced staff on techniques of management. Null hypothesis two (Ho₂) is therefore not rejected.

Ho₃: There is no significant difference in the mean ratings of staff with educational management qualifications and those without educational management qualifications preference for techniques of management in universities in the Niger Delta Region of Nigeria.

Table 8: t-test analysis of differences in the mean ratings of staff with educational management qualifications and those without educational management qualifications preferences for management techniques in universities in the Niger Delta Region, Nigeria.

Staff (Respondent)	N	\bar{X}	SD	df	t-cal	t-crit	Decision
Staff without management qualifications	192	3.01	1.01	326	1.04	1.96	**NS
Staff with management qualifications	136	2.92	0.75				

Source: Survey Data (2016).

** NS = Not significant.

Data in table 8 indicate that t-cal (1.04) is lower than t-crit (1.96) at degree of freedom (df) 326 of 0.05 level of significance, suggesting a no significant difference in the mean ratings of staff with educational management qualifications and those without management qualifications on management techniques in Universities in the Niger Delta Region of Nigeria. Null hypothesis three (Ho₃) is therefore not rejected.

Discussion

Data in table I indicated that the three management techniques that are popular among universities are Team Management (TM), Total Quality Management (TQM) and Management By Objectives (MBO). Demming in Okorie & Uche (2004) agreed where he described a system as a network of interdependent components that work together to accomplish the objectives of an organization. Team work according to Sallies (2002) is an essential component of Total Quality Management (TQM) which helps to build trust, improves communication and develops independence. Educational organizations have always used teams for ad-hoc assignments and non-recurrent task. Universities use team (committee system) to develop curriculum and carry out other functions. Management By Objectives (MBO) may have become popular among universities due to its simple approach, workers involvement and its democratic, rational decisions. Arinze (2007) agreed when he described MBO as a strategy for planning and getting results in a direction that management wishes while also meeting the goals and needs of its participants. Okeke (2001) asserted that among the acceptable managerial tools and quality principles developed in the business world and adopted in educational management, TQM, TM and MBO are prominent and acceptable for improving total organizational efficiency and effectiveness.

Data in table 2 also revealed that Team Management, Total Quality Management and Management By Objectives are the management techniques that resonated with federal and state universities. This could be due to the fact that with MBO, TQM and TM in any organization, crisis management is reduced to the bearest minimum (Arinze, 2007). This is

because management at the various levels deals with problems as they arise, instead of anticipating and planning for them. This is more so with MBO which provides workers some degree of autonomy and a wide range of discretion in the choice of how best to achieve the desired result. Little wonder these techniques of management properly resonated with federal and state universities. Ukeje, Okorie & Nwagbara (1992) however disagreed when they noted that these laudable management techniques are not effectively applied as evidenced by the alarming rate of wastages in education such as unemployment of school graduates, high incident of dropouts and mass failure of students in public examinations.

Data in table 3 showed that there was no sufficient difference in the mean ratings of inexperienced and experience staff on the use of TM, TQM and MBO as the popular management techniques among universities in the Niger Delta Region. This could be due to the fact that these techniques do not only ensure adequate control of school operations, they also provide opportunities for periodic appraisal of results. They equally ensure that personnels are rewarded according to their output. Odiorne (2001) however disagreed and warned that the National Education Association in the United States of America strongly opposed the use of MBO in staff appraisal. Ordione (2001) contended that MBO-based rating systems could be used to clamp down on staff and bust their unions.

Data in table 4 that TM, TQM and MBO were the preferred techniques of management for male and female university staff could be due to the fact that these management tools in the opinion of Wike-Okas (2005) can improve total organizational efficiency and effectiveness, a clear departure from management by control. Staff preference for TQM could be due to its ability to promote commitment and ensure organizational effectiveness under certain circumstance that support both organizational and individual needs. Wilkinson (2002) agreed when he asserted that effective management tends to galvanize employees needs to organizations objectives.

Data in table 5 indicated that there was no difference in the mean ratings of staff with educational management qualifications and those without educational management qualifications in their preferences for techniques of management. Preferences for TQM, TM and MBO suggested that little is known about more complex management techniques such as Programme Evaluation Review Techniques (PERT), Programme Performance Budgetary System (PPBS) and the Time series Analysis Technique (TSAT). Wike-Okas (2005) agreed when she suggested that school administrators should be further exposed to complex managerial techniques to be able to practically understand their nature and effectiveness in school control.

Testing null hypothesis one (H_{01}) in table 6 revealed a no significant difference in the preferences for management techniques of federal and state universities in the Niger Delta Region of Nigeria. This could be due to the fact that Universities in Nigeria are basically built on the same structural patterns and follow the same administrative techniques in problem solving and decision-making whereby key results and objectives are defined by superiors. Ukeje, Okorie and Nwagbara (1992) agreed when they noted that there are laid down procedures for focusing, directing and controlling resources within an organization and that resources are released /spent only when objectives are properly defined.

Testing null hypothesis two (H_{02}) in table 7 indicated a no significant difference in preference for management techniques of experienced and inexperienced staff. The researcher actually expected a contrary result with the thinking that experienced staff had become exposed to more complicated and advanced techniques of management such as PPBS, PERT and TSATS respectively, and their opinions ought to have deviated from their inexperienced counterparts.

Testing null hypothesis three (H_{03}) in table 8 which revealed a no significant difference for techniques of management between staff with education qualifications and those with no educational management qualifications was quite surprising. A contrary result was expected since staff with education management qualifications were expected to have received further trainings on advanced techniques of management than those without qualifications and their opinions ought to have differed. This result could be due to lack of adequate infrastructure and positive organizational climate to deploy the advanced management techniques in Nigerian universities.

Conclusion

The result so far indicated that management techniques that are common to universities in the Niger Delta Region are MBO, TM and TQM. That universities whether federal or state universities with experienced or inexperienced, male or female staff, staff qualified in educational management or not have little or no exposures on complex and advanced techniques of management such as PPBS, PERT and TSATS respectively. Since there was no significant difference in the university preferences for management techniques, there should be regular supervised formal and informal trainings for university administrators on advanced techniques of management in Nigerian universities.

Recommendations

The following among others were recommended:

- 1) University administrators should be properly exposed to basic management techniques to enable them achieve the objectives for which universities are established.
- 2) Regular capacity building programmes such as seminars, workshops and conferences on university management should be organized for university administrators/staff.
- 3) Proper funding adequate infrastructure and conducive organizational climate should be provided in Nigerian universities for better deployment of advanced techniques of management such as PERT, PPBS and TSAT respectively.
- 4) Improved management techniques in universities could be instituted through systematic staff trainings, staff motivation, better infrastructure and adequate funding.
- 5) Appointments into administrative positions in Nigerian universities, consideration should be given to qualifications in educational management and allied qualifications.

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