ELECTRONIC HUMAN RESOURCE MANAGEMENT FOR UNIVERSITY ADMINISTRATION IN RIVERS STATE

Abraham, Lois Nkechi

Department of Curriculum Studies and Educational Technology,
Faculty of Education, University of Port Harcourt, Rivers State, Nigeria

Eseyin, Emmanuel Olorunleke

Department of Educational Management,
Faculty of Education, University of Port Harcourt, Rivers State, Nigeria

ABSTRACT: *The study investigated electronic human resource management for University administration in Rivers State. Five research questions and five hypotheses were formulated to serve as guide for the study. The design adopted for the study was descriptive survey. Population of the study was 12,056 academic staff in Rivers State Universities while 749 academic staff were sampled for the study through stratified random sampling technique. Instrument used for data collection was a 25-item questionnaire titled "Electronic Human Resource Management for University Administration Questionnaire" (EHRMUAQ) and the instrument was validated by two experts in the Department of Educational Management, University of Port Harcourt. The reliability of the instrument was determined using Cronbach Alpha statistic with an index of 0.82.Research questions raised were answered using mean and standard deviation while the hypotheses were tested using z-test at 0.05 alpha level. The findings of the study revealed that public and private Universities differ in the extent of use of electronic platforms for planning, recruitment and selection, wage administration and compensation, and performance appraisal for University administration, while they do not differ in the area of training and development. It was recommended among others that sufficient electronic devices should be provided in these Universities for carrying out these administrative functions.*

KEYWORDS: electronic, human resource, management, university administration, Rivers State

INTRODUCTION

The University as an arm of the educational sector is saddled with so many responsibilities which are carried out for the actualization of the growth and developmental goals of the society. However, these goals cannot be adequately achieved without the adequate coordination of the entire activities in the University. Therefore, the University must ensure that the right resources are sourced and managed towards the attainment of the goals and objectives of the University and the society at large.

One of the relevant resources needed for the success of the day-to-day activities of the University is the human resource component. The human resources in the University comprise both the skilled and the unskilled workforce who work together for the smooth administration of the University. They individually and collectively work together to ensure that the functions

of the University to students, staff and the general public are adequately met. Since the human resource plays a major role in the success of the University, it is important that adequate care be taken in the process of selecting and managing this resource component of the University so as to ensure that they carry out their work diligently for the administration of the University. Universities therefore need to make adequate investments in the human resource components for the provision of efficient and effective service that will lead to the success of the University. In the past, traditional methods have been used in planning, selecting and even evaluating the activities of all human resources in the University. However, with the success recorded globally in the area of information and communication technology, emphases have shifted from the traditional approach to human resource management to the use of electronic means for managing the human resources in the University as well as the duties carried out by them. This breakthrough in technology has given rise of electronic means of recruiting and selecting human resource in the University as well as training and developing, planning, rewarding and appraising them. Using this electronic approach does not only save time and energy but also helps to ensure that quality service is provided by the available human resources for the administration of the University.

Statement of the Problem

The world today is being referred to as a 'global village' because of the interrelationship between individuals, institutions and nations which happen with speed, efficiency and accuracy. However, the University which is the hub of knowledge delivery for societal growth and development appears to be left behind in this transformation. Despite the advancement in technology, most of the activities carried out for the administration of the University is often characterized by inefficiencies. More worrisome is the fact that the human resources in these Universities that are expected to pilot the affairs of the Universities are poorly managed, and this may have been responsible for administrative lapses such as delay in decision making, low staff productivity, low staff morale, among others. However, in the face of the huge advancement in the area of information and communication technology, it is imperative to investigate the extent to which electronic means have been used in the planning, recruitment and selection, training and development, wage administration, and performance appraisal for University administration. This is the problem which this study intends to investigate for University administration.

LITERATURE REVIEW

Electronic Human Resource Management

Electronic human resource management (E-HRM) suggests in itself the process of using electronic platforms to manage the human resource components of an organization which include both the skilled and unskilled manpower. Ruël, Bondarouk and Looise in Nivlouei (2014:148) stated that electronic human resource management focuses on implementing human resource management strategies, policies and practices in organizations through the conscious and direct support of and the full use of channels based on web technology. The E-HRM therefore deals with the use of modern technological tools to manage employee related issues in any organization.

Mahfod, Khalifa and Madi (2017) further cited Ruël, Bondarouk and Looise and agreed that E-HRM is often referred to as human resource information systems (HRIS), virtual HRM, HR

Intranet, web-based HR, computer-based human resource management systems and HR portals. It is therefore the adoption of technological tools and other communication devices to manage the human resource of an organization for the purpose of organizational efficiency and effectiveness as well as goal attainment in the long run. Gomina (2019:51) avers that E-HRM is "a computer-based information system for managing the administration of human resource process and procedures".

University Administration
Oftentimes, administration is perceived as the activities performed by those at the top cadre in an organization. However, much more than the activities performed by the leaders in an organization, administration encompasses all activities carried out by the top management of an organization within and outside the organization for meeting the goals and objectives of that organization. Ogbogu (2013) agreed with this position when she revealed that administration has to do with all organizational activities performed for goal attainment. From this, it can be deduced that University administration comprises every activity carried out for the actualization of the goals and objectives of University education on daily basis.

Ogunruku (2016) gave a more succinct definition when he stated that University administration comprises the process of harnessing the resources of the institution including man (the academia and the facilitators), money (financial resources), machines (laboratory equipment), materials (the buildings as well as other infrastructure) and time, through the deployment of activities of planning, organizing, directing, staffing, coordinating, reporting and budgeting, for the purpose of actualizing the objectives of the university in terms of knowledge generation, dissemination and application. University administration therefore focuses on managing the daily activities of te University through judicious use of resources for goal actualization.

E-Planning for University administration
The success recorded in the technological world has had its positive influence on the general administration of formal organizations including the University system. One of the areas where technology has aided University administration is in the process of planning of academic and non-academic activities. Since planning deals with making forecasts for the future, e-planning can be deduced to mean making preparation for future events using electronic devices. E-planning in this article, is the sociocultural, ethical, and political practice in which people take part online in the overlapping phases of the urban planning and decision-making cycle (Horelli&Wallin, 2010:3). E-planning is therefore the use of online devices to make preparations for the future activities of an organization.

Silva as cited in Wallin, Saad-Sulonen, Amati and Horelli (2012) saw e-planning as a tool that is used for enhancing organizational participation.Adopting electronic devices makes it easy for employees in different departments of an organization to work together for meeting the needs of the organization. E-planning is therefore relevant for the administration of an organization such as the University system as it makes it easy for issues such as curriculum planning, financial planning, infrastructural planning, human resource planning to be carried out with ease for meeting the specific needs of the University. It is a medium through which the overall activities of the University can be conveniently executed.

E-Recruitment and Selection for University Administration

E-recruitment and selection deals with the use of electronic platforms for advertising, sorting, selecting and assigning employees into different areas of need in the University.Dhamija in Waghmare (2018:168) opined that e-recruitment refers to posting vacancies on the website of an organization by allowing applicants to send their resumes electronically via an email or in some other electronic format. This e-recruitment system has helped to reduce much of the routine administrative tasks involved in recruitment process in most formal organizations. There are different electronic platforms such as internet, television, radio, mobile devices which are used to advertise job vacancies as well as assess qualified applicants before they are further deployed to areas of need. These processes are easy and fast and also save other resources when they are done electronically.

Pilbeam and Corbridge as cited in Munyoro, Nyandoro and Guti (2016:17) noted that "the recruitment and selection processes focus on attracting suitable candidates, eliminating unsuitable candidates and converting the successful candidates to be effective employees".E-recruitment helps in accessing the quality of prospective employees as they are evaluated before being deployed and this helps to ensure that the right quality and quantity of human resource are brought into the University for diverse task performance.

E-Training and Development for University Administration

Kamal, Aghbari and Atteia (2016:1) stated that many businesses started to rely upon e-training because of its potentiality to reach mass groups of people in different districts or countries; decreasing costs, and disseminating efficient information. E-training is perceived as the preferred learning channel due to its global accessibility and reach to people of diverse social orientation. In today's technological world, there are different virtual platforms that are provided by different organizations to equip their employees with the needed knowledge, skills and attitude needed for professional service delivery. Electronic means of training and development therefore makes it easy for formal organizations such as the University to equip their employees with technical and critical skills and values needed for goal attainment.

Naoual and Larbi (2016) summed up the objectives of e-training and development to include; providing multiple sources of information; discussion, analysis and evaluation; updating information and skills, sharing experiences through e-training medias; finding interactive training environment; meeting market needs on personnel and qualified staff; filling the gaps of society structures as a result of successive developments among others. Since no organization can survive without a productive work force, electronic training and development is vital for equipping employees with contemporary skills as well as improving the competence of the workforce for the success of the organization.

E-Wage Administration and Compensation for University Administration

There is no doubt that the advancement in technology also plays a major role in wage administration in any formal organization. This is because the process of wage collection, estimation and reporting are easily executed with the use of electronic devices. Similarly, wage management will be a difficult task for any University system if appropriate electronic devices are not used for the generation, allocation, utilization and disbursement of funds accruing to the University both for staff and general administrative use. The relevance of electronic wage administration is not only of importance to the University administrators but also to the various

human resources. Odunlade (2012) revealed that individuals in any formal organization such as the University have interest in what they are paid which should be a fair and competitive wage while the organizations on the other hand are also concerned about what they pay because it motivates important decisions of employees about taking a job, leaving a job and on the job performance. The adoption of relevant electronic devices cannot therefore be ignored.

Elekwa and Eme (2013) pointed out that a good electronic wage administration system should provide freedom for calculating taxes, deductions, make payments as well as other financial deals. Therefore, the adoption of electronic devices for wage administration must go a long way in creating efficiency in the management of funds between the University and its workforce. This is important for mutual satisfaction between the University and its human resources for the smooth administration of the system.

E-Performance Appraisal for University Administration
Since the tasks performed by the academic and non-academic staff of the University go a long way in determining how well University goals and objectives will be achieved, the need for their performance evaluation cannot be overemphasized. Performance evaluation focuses on assessing how well employees have carried out their duties in the workplace in line with the expected goals of their work function.Igbojekwe, Ugo-Okoro and Agbonye(2015:630) asserted that performance appraisal is a process of assessing, summarizing and developing the work performance of staff in the university. This process is needed for assessing the strength and weakness of an employee and for making recommendations on how to improve their performance for organizational goal performance.

Employees in most formal organizations receive a performance appraisal report annually which gives a feedback on performance which serves as a basis for personnel decision such as promotion and compensation. Electronic performance appraisal however focuses on using electronic devices to assess the performance of workers. This includes the user of timers, cameras, and other audio-visual devices to assess time used by employees to complete a task, giving feedback on task completed among others. Ekwochi (2012:167) opined that the most commonly used appraisal techniques include: field review, essay appraisal, critical incident appraisal, ranking method, assessment, work standards approach, forced-choice rating, graphic rating scale and check list method. All of these are used to access the tasks performed by an employee and how this is done in order to make adjustments where necessary. This is important for the successful administration of any organization including the University.

Aim and Objectives of the Study
The aim of the study was to investigate electronic human resource for University Administration in Rivers State. Specific objectives of the study were to:
1.   determine the extent of e-planning for University administration in Rivers State
2.   examine the extent of e-recruitment and selection for University administration in Rivers State
3.   find out the extent of e-training and development for University administration in Rivers State
4.   ascertain the extent of e-wage administration and compensation for University administration in Rivers State

5.   examine the extent of e-performance appraisal for University administration in Rivers State

Research Questions
         The following research questions guided the study:
1.   What is the extent of e-planning for University administration in Rivers State?
2.   What is the extent of e-recruitment and selection for University administration in Rivers State?
3.   What is the extent of e-training and development for University administration in Rivers State?
4.   To what extent is e-wage administration and compensation used for University administration in Rivers State?
5.   To what extent is e-performance appraisal used for University administration in Rivers State?

Hypotheses
         These hypotheses were tested at 0.05 level of significance:
1.   There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-planning for University administration in Rivers State
2.   There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-recruitment and selection for University administration in Rivers State
3.   There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-training and development for University administration in Rivers State
4.   There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extente-wage administration and compensation is used for University administration in Rivers State
5.   There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-performance appraisal is used for University administration in Rivers State

METHODOLOGY

Descriptive survey was the design adopted for the study. Population of the study comprised 12,056academic staff in Rivers State Universities comprising 7,200 public Universities academic staff and 4,856private Universities academic staffout of which 749academic staff (379 public Universities academic staff and 370private Universities academic staff) in these Universities was selected as sampled for the study using random sampling technique. The instrument used for data collection was a 25 items questionnaire titled "Electronic Human Resource Management for University Administration Questionnaire" (EHRMUAQ) which was responded to on a four point modified likert scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) with weighted values of 4, 3, 2 and 1 respectively. The EHRMUAQ was presented to two experts in the Department of Educational Management, University of Port Harcourt for face and content validation. The reliability of the questionnaire was determined using Cronbach Alpha statistic with an average reliability index of 0.82 for the sections of the EHRMUAQ. The questionnaire was administered by the

researcher and three Research Assistants and 712 copies of the questionnaire (364 public Universities academic staff and 3,48private Universities academic staff) representing 95.1% were retrieved. The research questions were answered using mean and standard deviation while the hypotheses were tested using z-test at 0.05 alpha level.

RESULT

Answer to Research Questions
Research Question One: What is the extent of e-planning for University administration in Rivers State?

Table 1: Mean and standard deviation scores on the extent of e-planning for University administration in Rivers State

S/No	Items	Public Univ. Staff n=364			Private Univ. Staff n=348		
		Mean	SD	Remark	Mean	SD	Remark
1	The programmes of the school are made available to staff online	2.81	0.89	High Extent	3.29	1.25	High Extent
2	Curriculum is developed and implemented electronically	2.69	1.28	High Extent	3.74	1.36	High Extent
3	Calendar for academic activities are published electronically	3.17	1.00	High Extent	3.24	1.08	High Extent
4	School records are provided in soft copies for ease of usage	2.17	0.78	Low Extent	2.51	1.17	High Extent
5	The University adopt online platform to communicate with staff	3.61	0.83	High Extent	4.60	1.14	High Extent
	Average	**2.89**	**0.96**	**High Extent**	**3.48**	**1.20**	**High Extent**

Table 1 summarily revealed an average mean of 2.89 and 3.48 for public University staff and private University staff of the sampled Universities implying that these respondents believed that there is a high extent to which e-planning is used for the administration of Universities in Rivers State. However, the private Universities with an average mean score of 3.48 did better than the public Universities with an average mean score of 2.89. In the same vein, items above or below the criterion mean score of 2.50 revealed that there is a high extent and low extent respectively to which the item raised is used during e-planning for the administration of these Universities.

Research Question Two: What is the extent of e-recruitment and selection for University administration in Rivers State?

Table 2: Mean and standard deviation scores on the extent of e-recruitment and selection for University administration in Rivers State

S/No	Items	Public Univ. Staff n=364			Private Univ. Staff n=348		
		Mean	SD	Remark	Mean	SD	Remark
6	Vacancies are made available online	2.50	0.96	High Extent	2.94	1.18	High Extent
7	Prospective staff are assessed online	2.20	1.08	Low Extent	2.46	0.99	Low Extent
8	There is an online platform for the submission of applications	2.45	0.67	Low Extent	2.81	1.02	High Extent
9	Advertisement is done for job opportunities using technological platforms	2.51	1.28	High Extent	2.56	1.21	High Extent
10	Staff job placement is done electronically	2.35	1.05	Low Extent	2.65	1.27	High Extent
	Average			**Low**			**High**
		2.40	**1.01**	**Extent**	**2.68**	**1.13**	**Extent**

In table 2, the average mean of 2.40 and 2.68 for public University staff and private University staff showed that while the public Universities used e-recruitment and selection to a low extent, the private University staff used e-recruitment and selection to a high extent for the administration of Universities in Rivers State. The private Universities with an average mean score of 2.68 used e-recruitment and selection more than the public Universities with an average mean score of 2.40 for University administration. Similarly, items which were above or below the criterion mean score of 2.50 indicated that there is a high extent or low extent respectively to which the item raised is used during e-recruitment and selection for the administration of these Universities.

Research Question Three: What is the extent of e-training and development for University administration in Rivers State?

Table 3: Mean and standard deviation scores on the extent of e-training and development for University administration in Rivers State

S/No	Items	Public Univ. Staff n=364			Private Univ. Staff n=348		
		Mean	SD	Remark	Mean	SD	Remark
11	Staff are provided opportunity to attend online courses	3.00	0.80	High Extent	3.17	0.83	High Extent
12	There is provision for online interactive sessions among staff	1.80	1.18	Low Extent	2.26	1.15	Low Extent
13	New staff are given orientation virtually	2.28	1.08	Low Extent	2.46	0.99	Low Extent
14	Tele-conferencing is used for staff orientation	3.16	0.76	High Extent	3.17	0.83	High Extent
15	There is provision for staff to acquire contemporary technological skills	3.56	0.60	High Extent	3.24	0.81	High Extent
	Average			**High**			**High**
		2.76	**0.88**	**Extent**	**2.86**	**0.92**	**Extent**

Table 3 which revealed an average mean of 2.76 and 2.86 for public University staff and private University staff respectively suggests that they both used e-training and development to a high extent for the administration of Universities in Rivers State. Also, the private Universities with an average mean score of 2.86 did better tin the use of e-training and development than the public Universities with an average mean score of 2.76 for University administration. Furthermore, the questionnaire items above or below the criterion mean score of 2.50 in the table showed that there is a high extent and low extent respectively to which the item raised is used during e-training and development for the administration of these Universities.

Research Question Four: To what extent is e-wage administration and compensation used for University administration in Rivers State?

Table 4: Mean and standard deviation scores on the extent of e-wage administration and compensation for University administration in Rivers State

S/No	Items	Public Univ. Staff n=364			Private Univ. Staff n=348		
		Mean	**SD**	**Remark**	**Mean**	**SD**	**Remark**
16	There is provision for taxes to be paid online	1.78	1.10	Low Extent	2.83	0.97	High Extent
17	Staff compensations are often done electronically	2.62	0.96	High Extent	2.91	1.18	High Extent
18	Staff earnings are usually determined electronically	3.30	0.59	High Extent	3.87	1.02	High Extent
19	Staff can lodge financial complains electronically	3.02	0.68	High Extent	3.61	1.14	High Extent
20	Staff service delivery is usually measured electronically to estimate their rewards	2.34	1.22	Low Extent	2.87	0.92	High Extent
	Average	**2.61**	**0.91**	**High Extent**	**3.22**	**1.05**	**High Extent**

In table 4,while the average mean of public University staff was 2.61,that of the private University staff was 3.22 suggesting that they both used e-wage administration and compensation to a high extent for University administration.However, the public Universities with an average mean score of 2.61applied e-wage administration and compensation lesser than the private Universities with an average mean score of 3.22 as revealed by the respondents of the study. Furthermore,, questionnaire items above or below the criterion mean score of 2.50 indicated that there is a high extent or low extent respectively to which the item raised is used during e-wage administration and compensation for the administration of these Universities.

Research Question Five: To what extent is e-performance appraisal used for University administration in Rivers State?

Table 5: Mean and standard deviation scores on the extent of e-performance appraisal for University administration in Rivers State

S/No	Items	Public Univ. Staff n=364			Private Univ. Staff n=348		
		Mean	SD	Remark	Mean	SD	Remark
21	Staff give work feedback using online platforms	2.25	0.78	Low Extent	2.59	0.97	High Extent
22	Work doneis measured electronically	2.05	1.25	Low Extent	2.02	1.18	Low Extent
23	There is an online work schedule for all staff	3.25	0.83	High Extent	3.15	0.89	High Extent
24	Staff of the University are assessed electronically intermittently	1.81	1.21	Low Extent	3.20	0.88	High Extent
25	Staff are presented with an electronic work report periodically	2.29	1.08	Low Extent	2.47	0.99	Low Extent
	Average			**Low Extent**			**High Extent**
		2.33	**1.03**		**2.69**	**0.98**	

Table 5 summarily revealed an average mean of 2.33 and 2.69 for public University staff and private University staff of the sampled Universities implying that these respondents believed to a low extent and high extent respectivelyon the use of e-performance appraisal for the administration of Universities in Rivers State. While the public Universities with an average mean score of 2.33adopted e-performance appraisal to a low extent, the private Universities with an average mean score of 2.69 used e-performance appraisal to a high extent for University administration. Furthermore, items above or below the criterion mean score of 2.50 showed that there is a high extent and low extent respectively to which the item raised is used during e-performance appraisal for the administration of these Universities.

Test of Hypotheses

Hypothesis One: There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-planning for University administration in Rivers State

Table 6: z-test analysis of no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-planning for University administration in Rivers State

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Public Univ. Staff	364	2.89	0.96	710	7.28	1.96	0.05	Ho was rejected
Private Univ. Staff	348	3.48	1.20					

In table 6, the value of z-cal. of 7.28 was above the value of z-crit. of 1.96 and this reveals why the null hypothesis was rejected implying that there was a significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-planning for University administration in Rivers State

Hypothesis Two: There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-recruitment and selection for University administration in Rivers State

Table 7: z-test analysis of no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-recruitment and selection for University administration in Rivers State

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Public Univ. Staff	364	2.40	1.01	710	3.50	1.96	0.05	Ho was rejected
Private Univ. Staff	348	2.68	1.13					

Table 7 showed that the value of z-cal. was 3.50 while the value of z-crit. was 1.96. Therefore, since the value of z-cal. of 3.50 was below the value of z-crit. of 1.96, the null hypothesis was rejected suggesting that there was a significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-recruitment and selection for University administration in Rivers State

Hypothesis Three: There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-training and development for University administration in Rivers State

Table 8: z-test analysis of no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-training and development for University administration in Rivers State

Variable	n	Mean	SD	Df	z-cal.	z-crit.	Level of Significance	Decision
Public Univ. Staff	364	2.76	0.88	710	1.49	1.96	0.05	Ho was not rejected
Private Univ. Staff	348	2.86	0.92					

The value of z-cal. of 1.49 in table 8 was below the value of z-crit. of 1.96 and this was why the null hypothesis was not rejected indicating that there was no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent of e-training and development for University administration in Rivers State

Hypothesis Four: There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-wage administration and compensation is used for University administration in Rivers State

Table 9: z-test analysis of no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-wage administration and compensation is used for University administration in Rivers State

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Public Univ. Staff	364	2.61	0.91	710	8.36	1.96	0.05	Ho was rejected
Private Univ. Staff	348	3.22	1.05					

Table 9 revealed that the value of z-cal. of 8.36 was above the value of z-crit. of 1.96 and this was why the null hypothesis was not rejected implying that there was a significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-wage administration and compensation is used for University administration in Rivers State

Hypothesis Five: There is no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-performance appraisal is used for University administration in Rivers State

Table 10: z-test analysis of no significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-performance appraisal is used for University administration in Rivers State

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Public Univ. Staff	364	2.33	1.03	710	4.80	1.96	0.05	Ho was rejected
Private Univ. Staff	348	2.69	0.98					

In table 10, while the value of z-cal. was 4.80, the value of z-crit. was 1.96. Since the value of z-cal. of 4.80 was above the value of z-crit. of 1.96, the null hypothesis was rejected revealing that there was a significant difference in the mean opinion scores of academic staff in private and public Universities on the extent e-performance appraisal is used for University administration in Rivers State

DISCUSSION OF FINDING

Extent of E-Planning for University Administration in Rivers State
Planning no doubt is an integral part of the administration of any organization whether educational or otherwise. This is because it is through planning that the future goals of any organization can be systematically actualized. Similarly, in this era of technological advancement, the use of technology for planning has tremendous benefit both to the organization as well as its end users. The responses from the respondents of the study suggest that e-planning is carried out to a high extent for the administration of the sampled Universities.

However, it was revealed from the study that public Universities do not use electronic devices for record management when compared to the private Universities. This finding was substantiated by the study conducted by Gülbahar (2007) where it was revealed that technological devices are not adequately utilized for students related activities in the study area. This means that public Universities do not adequately use electronic devices for planning and recording of relevant information as it relates to students and staff.

Explaining the reason for this anomaly, Olibie (2013) pointed out from the findings of his study that the incompetence among most human resource is responsible for the low extent of electronic planning. It is therefore important for educational planners as well as other stakeholders in the University to be trained on how to use electronic medium for panning as this goes a long way in affecting the overall administration of the University.

Extent of E-Recruitment and Selection for University Administration in Rivers State
The recruitment and selection process in any organization plays a significant role in determining the quality of services that will be provided. Surprisingly, while the study revealed that private Universities use electronic platforms for recruitment and selection to a high extent, the public Universities does same to a low extent. This suggests that the public Universities do not fully utilize electronic mediums for recruiting and selecting their prospective staff. However, the reason for this may be clarified from the study conducted by Osoian and Zaharie (2014) which revealed that no difference existed in the quality of applications whether through internal or electronic channels. This implies that the public Universities may be comfortable with using non-electronic methods of recruitment and selection since it is likely to give the same outcome for the administration of the University.

The need for adopting electronic channels for recruitment and selection in this digital age cannot be overemphasized. Atallah (2016) pointed out a strong positive relationship between e-recruitment and selection and organizational development. It therefore implies that any organization that will make process needs to embrace the electronic method of recruitment and selection as this will help determine the future development of the organization. Vacancies should not just be advertised online, application as well as assessment, selection and deployment of these prospective workers should be done online as this ensures quality which is needed for the administration of the University.

Extent of E-Training and Development for University Administration in Rivers State
One of the areas of deficiency revealed in the use of e-training and development as revealed from the respondents of the study was that there is a low extent to which staff carry out interactive training session both in the public and private Universities. Similarly, there was also a low extent to which new staff are given virtual orientation. Therefore, despite the high extent to which e-training and development were carried out by these Universities for administrative purpose, these areas are still point of concern. These areas need to be given attention since the study by Kamal, Aghbari and Atteia (2016) pointed out that a significant positive relationship existed between e-training and employee job performance. They pointed out that e-training and development influences employee job performance by 25.3% in the study area. Training new employees electronically therefore goes a long way in boosting their performance which is a necessity for University administration.

The need for training staff of the University before, during and after their recruitment is of great necessity as the study by Amara and Atia (2016) pointed out that e-training and development is an effective tool in the rehabilitation of the human resources of any organization. Employees of the University whether academic or non-academic can be trained and developed to meet up with modern educational challenges whether locally or internally using electronic platforms and this is important for the achievement of University goals and objectives in the short and long run.

Extent E-Wage Administration and Compensation is Used for University Administration in Rivers State

The wage earned by an employee also goes a long way in determining their commitment to the organization. Attention therefore needs to be given to the system of wage administration and compensation if the goals of the organization must be achieved. However, it was revealed from the findings of the study that both the public Universities as well as the private Universities adopt electronic wage administration and compensation to a high extent. The adoption of electronic system of wage administration and compensation doe not only benefit the employees but also the employers as the study by Breza, Kanz andKlapper (2017) revealed from its findings that digital wage payment increases savings and ability to cope with unanticipated shocks among formal organizations. This is relevant for the administration of any formal organization.

Public Universities however need to make provision for staff to be able to pay their taxes and other levies online as this guaranteed transparency which is needed for the administration of the University. The job performed by these employees should also be measurable online so that they can get an accurate wage and other compensations. Supporting this position, Saani (2013) revealed in the findings of his study that electronic compensation and supervision contributes to work performance and this plays a significant role in the administration of any educational institution including the University.

Extent is E-Performance Appraisal used for University Administration in Rivers State

Performance evaluation vis-à-vis appraisal is a significant practice in the administration of any organization. However, it was revealed in the study that the public Universities adopted electronic performance appraisal to a low extent. This means that these Universities do not really adopt electronic channels for assessing the performance of their employees. However, Al-Raisi, Amin and Tahir (2011) buttress the reason for this when they asserted in the findings of their study that there is still a little knowledge among formal organizations in the use of electronic performance appraisal tools. This suggests that some of these Universities may not be well informed on how to use electronic channels for appraising their employees which can affect the administration of the University.

Njeje, Chepkilot and Ochieng (2018) opined in their study that the use of electronic performance appraisal tools helps in the development of an effective reward management system. Electronic performance appraisal is therefore not only for accessing the quality of work done by the staff of the University but also for determining the wage that will be earned by the employees. This is important for the smooth administration of the University as both the University and the staff of the University benefits mutually in the long run.

CONCLUSION

It was concluded from the findings of the study that public Universities in Rivers State adopt electronic human resource management practices to a low extent for the administration of the University system. This reveals the need for these Universities to ensure the use of electronic mediums for the management of all activities involving all staff in the University.

Recommendations

The following recommendations were made as they relate to the findings of the study:

1.   It is important for the administrators of the University to provide sufficient electronic facilities and equipment that will make it easy for these Universities to carry out e-planning for the administration of the University.

2.   The University should also develop an electronic data base where advertisement, recruitment, assessment and placement of staff can be carried out seamlessly for the administration of the University.

3.   Staff of the University should be trained on how to take advantage of available electronic training and development programmes within and outside the University for the administration of the institution.

4.   It is important for the University to make laws that will help to ensure that all financial transactions between the University and its employees are carried out electronically for transparency and the smooth administration of the University.

5.   Administrative heads should be encouraged to develop electronic channels of evaluation the staff under their control as this will help to ensure that staff performance is properly appraised and rewards provided according to actual performance.

References

Al-Raisi, A., Amin, S. &Tahir, S. (2011). Evaluation of e-performance analysis and assessment in the United Arab Emirates (UAE) organizations: *Journal of Internet and Information System, 2*(2), 20-27

Amara, N. B. &Atia, L. (2016). E-training and its role in human resources development: *Global Journal of Human Resource Management, 4*(1), 1-12

Atallah, A. A. (2016). The impact of electronic human resource management (E-HRM) on organizational development of UNRWA in Gaza Strip. Retrieved from https://www.mobt3ath.com/uplode/book/book-14405.pdf

Breza, E., Kanz, M. &Klapper, L. (2017).*The real effect of electronic wage payment: First result.* Retrieved from http://www.theigc.org/wp-content/uploads/2017/03/Breza-et-al-final-report.pdf

Ekwochi, E. A. (2012). The effect of performance appraisal in an organization: *Review of Public Administration and Management, 1*(2), 162-170

Elekwa, N. N. &Eme, O. I. (2013). An analysis of computerized accounting and payrolling system on monthly emolument in Nigerian local government: *International Journal of Accounting Research, 1*(3), 16-28

Gomina, C. G. (2019). *"Electronic Human Resource Management (E-HRM) practices for effective administration of tertiary institutions in Rivers State".* Unpublished Ph.D. Thesis, Department of Educational Management, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Nigeria

Gülbahar, Y. (2007). Technology planning: A roadmap to successful technology integration in schools. *Computers and Education, 49,* 943–956

Horelli, L., &Wallin, S. (2010). The future-making assessment approach as a tool for e-planning and community development – The case of ubiquitous Helsinki. In Silva, C. N. (Ed.), Handbook of research on e-planning: ICTs for urban development and monitoring (pp. 58–79). Hershey, PA: IGI Globa

Igbojekwe, P. A., Ugo-Okoro, C. P. &Agbonye, C. O. (2015). Performance evaluation of academic staff in Universities and Colleges In Nigeria: The missing criteria. *International Journal of Education and Research, 3*(3), 627-640

Kamal, K. B., Aghbari, M. A. &Atteia, M. (2016). E-Training & Employees' Performance a Practical Study on the Ministry of Education in the Kingdom of Bahrain: *Journal of Resources Development and Management, 18,* 1-8

Kamal, K. B., Aghbari, M. A. &Atteia, M. (2016). E-training and employees' performance a practical study on the Ministry of Education in the Kingdom of Bahrain: *Journal of Resources Development and Management, 18,* 1-8

Mahfod, J., Khalifa, N. Y. &Madi, F. (2017). Electronic human resource management (e-hrm) system: *International Journal of Economic Research, 14*(15), 563-576

Munyoro, G., Nyandoro, Z. &Guti, N, (2016). Recruitment and selection of academic staff and students' learning experience in private Christian Universities in developing countries: A case study of Zimbabwe Ezekiel Guti University (ZEGU). *Africa Development and Resources Research Institute Journal, 25*(8), 14-28

Naoual, B. A. &Larbi, A. (2016). E-training and its role in human resources development: *Global Journal of Human Resource Management, 4*(1), 1-12

Nivlouei, F. B. (2014). Electronic Human Resource Management System: The Main Element in Capacitating Globalization Paradigm: *International Journal of Business and Social Science, 5*(2), 147-159

Njeje, D. A., Chepkilot, R. &Ochieng, I. (2018). E-performance management systems and organization performance of Sacco's in Kenya: *Journal of Business and Management, 20*(5), 89-98

Odunlade, R. O. (2012). Managing employee compensation and benefits for job satisfaction in libraries and information centres in Nigeria. Retrieved from https://digitalcommons.unl.edu/libphilprac/714/

Ogbogu, C. O. (2013). Policy issues in the administration of higher education in Nigeria: *World Journal of Education, 3*(1), 32-38

Ogunruku, A. O. (2016). *Economic recession and its implications for university administration.* Retrieved from http://anupanigeria.com/wp-content/uploads/2017/03/ECONOMIC-RECESSION-AND-ITS-IMPLICATIONS-FOR-UNIVERSITY-ADMINISTRATION.pdf

Olibie, E. I. (2013). Curriculum planning in secondary schools: Principals' practices and challenges in an era of knowledge and learning management. *International Journal of Academic Research in Progressive Education and Development, 2*(1), 443-453

Osoian, C. &Zaharie, M. (2014).Recruitment for competencies in public and private sectors.Retrieved from http://rtsa.ro/tras/index.php/tras/article/download/160/156.

Saani, A. (2013). Influence of compensation and supervision on private basic school teachers work performance in Ashaiman municipality: *International Journal of Business and Social Science, 4*(17), 64-69

Waghmare, S. (2018). A study of e-recruitment: From the perspective of job applicants: *International Journal of Creative Research Thoughts, 6*(2), 167-173

Wallin, S., Saad-Sulonen, J., Amati, M. &Horelli, L. (2012). Exploring e-planning practices in different contexts: *International Journal of E-Planning Research, 1*(3), 17-39