KNOWLEDGE, AND UTILISATION OF ELECTRONIC HUMAN RESOURCE MANAGEMENT AMONG UNIVERSITY ADMINISTRATORS IN RIVERS STATE, NIGERIA

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ABSTRACT: *This study investigated knowledge and utilization of electronic human resource management among University administrators in Rivers State. Two research questions guided the study, and two hypotheses were tested at 0.05 level of significance. The study adopted a descriptive survey design. The population of the study was154 administrative staff from three public Universities in Rivers state. A sample of 92 administrative staff of the three Universities was drawn using stratified random sampling technique, representing 58.4% of the population. The instrument for the study was a questionnaire titled "Knowledge, and Utilisation of Electronic Human Resource Management among University Administrators Questionnaire (KUEHRMUAQ) developed by the researchers. The instrument was structured the modified four-point Likert scale of Very High Extent (VHE) = 4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE) = 1. The validity of the instrument was ensured. Cronbach Alpha statistic was used to compute the reliability index of 0.87. Mean scores, standard deviation and rank order were used to answer the research questions, while z-test was used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that the extent of the knowledge of Electronic Human Resource Management by the universities administrative staff is to high extent, while the extent of utilization of Electronic Human Resource Management in the Universities is very low. Based on the findings of the study, it was recommended among others that university management should provide the needed resources for the implementation of electronic human resource management in the universities.*

KEYWORDS: knowledge; utilization; e-human resource management, university administrators.

INTRODUCTION

Human resource is used to describe people working in an organization. In educational organizations, human resources include teachers, students, administrators and others members of staff working in the education system. Human resource management is the process of managing the people working in the organization. This process involves recruiting, mentoring, establishing good relationship, ensuring safety of staff, training and developing staff, retraining and deciding compensation benefits and welfare of staff who work towards the achievement of organizational

goals and objectives. Itis the utilization of available human skills to efficiently and effectively achieve organizational goals and objectives. The use of electronic means and the internet in managing human resources has brought about Electronic Human Resource Management (E-HRM).

Electronic Human Resource Management (E-HRM) is the adoption of information and communication technology and the internet in delivering Human Resource (HR) practices due to the use of digital technology in carrying out daily activities. It is the processing and transmission of digitized information used in Human resource management including text, sound and visual image, from one computer or electronic device to another. Rajalakshmi and Gomathi (2016) defines Electronic Human Resource Management (E-HRM) as a web-based technology used to upgrade human resource department in the organization through converting human resource activities into electronic human resource mode. He further described the modules and tools of Electronic Human Resource Management to include recruitment system, employee selection system, basic organizational management information system, learning and training system, ideas and creativity exchange system, assessment system, welfare system, and career development system. This implies that E-HRM plays important role in the management of human resource by providing clear process and procedures for employees, maintaining accuracy and improve communication between the employees and the administrators within the timeline.

In the view of Madum (2015), Electronic Human Resource Management (E-HRM) is a web-based system that is developed to implement human resource policies, practices and tactics to achieve the organizational goals. It is a kind of innovation that promotes, develops and facilitates the practices of human resource management from the department of human resource managers and to the employees.

Rajalakshmi and Gomathi (2016) identified the following objectives of e-HRM:
1.   E-HRM provides comprehensive, accurate and efficient information about employees and their work at reasonable cost.
2.   E-HRM provides support for organizational future planning, policy and procedure in the work environment.
3.   E-HRM is used to monitor and analyse the human resource in the organization and updates employee information accordingly.
4.   E-HRM provides faster solution for employee problems and human resource decision in the organization.
5.   E-HRM provides secured data and privacy in the organization for human resource department.

However, the knowledge of electronic human resource management is useful for organizational managers to monitor and evaluate the employees' activities based on electronic database. It converts all the activities of the human resource department into electronic format and provides a faster, smarter and efficient ways to update the employees' and the employers' activities. Information and Communication Technology has been used as a tool in facilitating the collection, analysis, dissemination and use of information. It includes hardware and software for the support

of organizational functions and human resource management. E-HRM provides the possibility to store and repeatedly use the information in electronic database, which could be accessible by anyone, anytime and anywhere within the organization.

Ma and Ye (2015) identified three types of Electronic Human Resource Management as operational, relational and transformational.
1.   **Operational E-Human Resource Management:** This type of electronic human resource management is related with the administrative functions such as payrolls and employee personal data updates through online websites, salary management and maintain employees database.
2.   **Relational E-Human Resource Management:** This is related with a human resource tool that deals with organizational functions such as business process functions, recruiting, training, development performance management and appraisal, and rewards.
3.   **Transformational E-Human Resource Management:** This is concerned with strategic human resource management activities regarding organizational change processes, strategic re-orientation, strategic competence management and strategic knowledge management.
4.
Mahmudul, Hoque and Muhammad (2019)believe that the use of internet has changed many human resource process including planning, soliciting, recruiting, compensation, performance management and workflow. However, the application of web-based process to improve the efficiency of the HR system through the use of electronic means is called e-HRM.

Ukandu, Iwu and Allen-Ile (2014) carried out a study on the influence e-HRM in decision making in selected tertiary institutions in South-Africa. Theyfound that e-HRM is used in leave administration, staff appointment, monitoring of employment equity matters; validation of headcount, approval of job grades, and the analysis of information such as reporting capabilities. Furthermore, the HR directors and managers stated that they apply E-HRM system as a decision making tool in promotions and confirmations, salary advancements, annual leave, and so on. Again, E-HRM system is used as a decision-making tool in performance appraisal, posting, recruitment and capturing of personal data in their institutions. This study seeks to investigate the knowledge and utilisation of electronic human resource management among University administrators in Rivers State.

Statement of the Problem
Human resource management process has continued to change as technology continues to advance. If the human resources are to deliver supportive workforce, reviewing employee salary, bonus ratings, speed up communication process, recording of employee absence, reduce time spent on administrative task and paper transactions. The use of electronic human resource management system is necessary to integrate comprehensive database across the university system, and provide a more accurate and timely personnel information management in the Universities. Therefore, the problem of the study was preponderance of much paper work with its clumsiness which suggests lack of knowledge and utilisation of electronic human resource management among University's administrators in Rivers State.

Aim and Objectives of the Study
The aim of the study was to investigate the knowledge and utilisation of electronic human resource management among University administrators in Rivers State. In specific terms, the study seeks to:
1.   investigate the extent of the knowledge of electronic human resource management among University administrators in Rivers State.
2.   find out the extent of utilization of electronic human resource management among University's administrators in Rivers State.

Research Questions
The following research questions guided the study:
1.   What is the extent of the knowledge of electronic human resource management among University administrators in Rivers State?
2.   What is the extent of utilization of electronic human resource management among University administrators in Rivers State?

Hypotheses
The following null hypotheses were tested at 0.05 level of significance:
1.   There is no significant difference between mean ratings of Federal and State University administrative head son the extent of the knowledge of electronic human resource management among University administrators in Rivers State.
2.   There is no significant difference between the mean ratings of Federal and State University administrative head son the extent of utilization of electronic human resource management among University administrators in Rivers State.

METHODOLOGY

The study adopted a descriptive survey design. This design was appropriate as the study collected data from the sample of a given population and described the situation accordingly. The population of the study comprised 154 administrative staff (Deans, Heads of Departments, and Directors of Institutes and centres) from the three public Universities in Rivers State. The Universities include University of Port Harcourt, Rivers State University, and Ignatius Ajuru University of Education (66 staff, 48 staff and 40 staff) respectively. A sample of 90 administrative staff of the three Universities was drawn using purposive sampling technique, representing 58.4% of the population. This was done by drawing 30 administrative staff from each University. The instrument used for data collection was a questionnaire titled 'Knowledge, and Utilisation of Electronic Human Resource Management among University Administrators Questionnaire (KUEHRMUAQ)'developed by the researchers. The instrument was structured on the modified four points Likert scale of Very High Extent (VHE) = 4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE) = 1. The validity of the instrument was ensured. The reliability was ascertained uusing Cronbach Alpha statistic which yielded a reliability index of 0.89. Mean scores, standard deviation and rank order was used in answering the research questions, while z-test were used in testing the null hypotheses at 0.05 significant level.

RESULTS

Research Question One: What is the extent of the knowledge of electronic human resource management among University's administrators in Rivers State?

Table 1:Mean ratings and standard deviation of Federal and State University's administrative heads on extent of the knowledge of electronic human resource management among University administrators in Rivers State

S/N	Knowledge of electronic human resource management among University's administrators	Federal University = 30				State Universities= 60			
		$\bar{x}_{FU}$	$S.D_{FU}$	Rank Order	Remarks	$\bar{x}_{SU}$	$S.D_{SU}$	Rank Order	Remarks
1.	I have knowledge of electronic recruitment	2.64	0.87	4th	High Extent	2.50	0.81	5th	High Extent
2.	I have knowledge of electronic selection	2.59	1.01	5th	High Extent	2.62	0.87	4th	High Extent
3.	I have knowledge of electronic performance management	2.79	1.10	3rd	High Extent	2.97	0.80	2nd	High Extent
4.	I have knowledge of electronic compensation	2.44	0.96	6th	Low Extent	2.37	0.93	6th	Low Extent
5.	I have knowledge of electronic communication	2.83	0.97	2nd	High Extent	2.71	0.89	3rd	High Extent
6.	I have knowledge of electronic training and development	2.86	0.89	1st	High Extent	2.80	0.91	1st	High Extent
	Average Mean/S.D	**2.66**	**0.97**			**2.75**	**0.84**		

Source: Survey Data 2019

Legends: **Scales:**
$\bar{x}_{FU}$: Mean of Federal University   1.00 - 1.99: Very Low Extent
$\bar{x}_{SU}$: Mean of State Universities   2.00 – 2.49: Low Extent
$S.D_{SU}$: Standard Deviation of State Universities   2.50 – 3.49: High Extent
$S.D_{FU}$: Standard Deviation of Federal University   3.50 – 4.00: Very High Extent

Data on Table 1 show the mean ratings and standard deviation of Federal and State University administrative heads on extent of the knowledge of electronic human resource management among University administrators in Rivers State. The table shows that the respondents to items 1, 2, 3, 5 and 6 jointly indicated high extent on the knowledge of electronic human resource management, while the respondents shows that item 4 indicated low extent on the knowledge of electronic human resource management. The knowledge of electronic training and development was rated

highest by both federal and state universities while knowledge of electronic compensation was rated low by both federal and state universities on the knowledge of electronic human resource management among University administrators in Rivers State. The average mean scores for federal and state universities are 2.66 and 2.75 respectively indicated very low extent on the knowledge of electronic human resource management among University administrators in Rivers State. Therefore, University administrators have knowledge of electronic training and development, electronic communication, electronic performance management, electronic recruitment and electronic selection.

Research Question Two: What is the extent of utilization of electronic human resource management among university administrators in Rivers State?

Table 2: Mean ratings and standard deviation of Federal and State University's administrative heads on extent of utilization of electronic human resource management among University administrators in Rivers State

S/N	Utilization of electronic human resource management among University's administrators	Federal University = 30				State Universities = 60			
		$\bar{x}_{FU}$	$S.D_{FU}$	Rank Order	Remarks	$\bar{x}_{SU}$	$S.D_{SU}$	Rank Order	Remarks
7.	There is an employee portal that facilitates internal communication in the university	1.64	0.87	6th	Very Low Extent	1.75	0.61	5th	Very Low Extent
8.	There is a web-based application for employees to access compensation and benefits	1.59	0.66	6th	Very Low Extent	1.62	0.57	9th	Very Low Extent
9.	The university portal offers employees access to biodata	1.99	1.10	2nd	Very Low Extent	1.97	0.80	1st	Very Low Extent
10.	The university uses a web-based application management system to improve recruitment	1.44	0.96	9th	Very Low Extent	1.37	0.93	10th	Very Low Extent
11.	Interactive web conferencing services are used in the university to convey messages to various department	1.60	0.97	5th	Very Low Extent	1.71	0.89	7th	Very Low Extent
12.	The university portal helps staff to access training programmes	1.86	0.79	3rd	Very Low Extent	1.80	0.81	3rd	Very Low Extent
13.	University portal enables various department to manage personnel attendance	1.07	0.93	10th	Very Low Extent	1.90	0.73	2nd	Very Low Extent

14.	Job applicants are allowed to send their resumes electronically via e-mail	2.12	1.13	1st	Low Extent	1.77	0.81	4th	Very Low Extent
15	The university portal offers payroll information of employees	1.82	1.08	4th	Very Low Extent	1.69	0.77	8th	Very Low Extent
16.	Recruitment of employees are done via the university website	1.59	1.19	6th	Very Low Extent	1.71	0.75	6th	Very Low Extent
	Average Mean/S.D	**1.67**	**0.97**			**1.73**	**0.77**		

Data on Table 2 show the mean ratings and standard deviation of Federal and State University's administrative heads on extent of the utilization of electronic human resource management among University administrators in Rivers State. The table shows that the respondents to items 7, 8, 9, 10, 11,12, 13, 15 and 16 indicated very low extent on the utilization of electronic human resource management, while the respondents show that item 14 indicated low extent on the extent of utilization of electronic human resource management. The university administrators show that 'job applicants are allowed to send their resumes' was rated highest by both federal and state universities while knowledge of electronic compensation was rated low by federal universities, and 'university portal offers employees access to biodata' was rated highest by state universities on the utilization of electronic human resource management among University administrators in Rivers State. 'University portal enables various departments to manage personnel attendance' was rated lowest by federal university; while university uses a web-based application management system to improve recruitment was rated low by state universities. The average mean scores for federal and state universities which are 1.67 and 1.73 respectively indicated very low extent on the utilization of electronic human resource management among University administrators in Rivers State. Therefore, the extent of utilization of electronic human resource management among university administrators was very low.

Therefore, the study revealed that there is a very low extent to which an employees' portal can facilitates internal communication in the university, web-based application for employees to access compensation and benefits, portal that offers employees access to biodata, uses a web-based application management system to improve recruitment, interactive web conferencing services are used in the university to convey messages to various departments, university portal that helps staff to access training programmes, portal enables various departments to manage personnel attendance, university portal offers payroll information of employees, and recruitment of employees are done via the university websites.

Test of Hypotheses

Hypothesis One: There is no significant difference between mean ratings of Federal and State University administrative heads on the extent of the knowledge of electronic human resource management among University administrators in Rivers State.

Table 3:Summary of z-test analysis of mean ratings of Federal and State University's administrative heads on the extent of the knowledge of electronic human resource management among University's administrators in Rivers State

Administrative Heads	N	$\bar{x}$	S.D	df	z-cal.	z-crit.	Decision
Federal University	30	2.66	0.97				
				88	0.66	±1.96	Accepted
State Universities	60	2.75	0.84				

Level of significance = 0.05
Legends:
n   :   Number of respondents
$\bar{x}$:   Mean
S.D   :   Standard Deviation
z-cal   :   z- calculated value
df   :   Degree of freedom
z-crit   :   z-critical value

Data on Table3 show summary of subjects mean, standard deviation and z-test on the difference in the mean ratings of Federal and State University administrative heads on the extent of the knowledge of electronic human resource management among University administrators in Rivers State. The calculated z-value used in testing the hypothesis stood at 0.66 while the z-critical value stood at ± 1.96 using 88 degree of freedom. At 0.05 level of significance and 88 degree of freedom, the calculated z-test of 0.66 is less than z-critical value of ± 1.96, hence there is no significant difference in the mean ratings of Federal and State University administrative heads on the extent of the knowledge of electronic human resource management among University administrators in Rivers State. Based on the foregoing, the researchers accepted the null hypothesis, and confirmed that there is no significant difference between the mean ratings of Federal and state university administrative heads on the extent of the knowledge of electronic human resource management among university administrators in Rivers State.

Hypothesis Two: There is no significant difference between the mean ratings of Federal and State University administrative heads on the extent of utilization of electronic human resource management among University administrators in Rivers State.

Table 4: Summary of z-test analysis of mean ratings of Federal and State University's administrative heads on the extent of utilization of electronic human resource management among University's administrators in Rivers State

Administrative Heads	N	$\bar{x}$	S.D	df	z-cal.	z-crit.	Decision
Federal University	30	1.67	0.97				
				88	0.78	± 1.96	Accepted
State Universities	60	1.73	0.77				

Level of significance = 0.05

Legend in table 3 applied
Data on Table 4show summary of subjects means, standard deviation and z-test on the difference in the mean ratings of Federal and State University administrative heads on the extent of utilization of electronic human resource management among University administrators in Rivers State. The calculated z-value used in testing the hypothesis stood at 0.78 while the z-critical value stood at $\pm$ 1.96 using 88 degree of freedom. At 0.05 level of significance and 88 degree of freedom, the calculated z-test of 0.78 is less than z-critical value of $\pm$ 1.96, hence there is no significant difference in the mean ratings of Federal and State University administrative heads on the extent of utilization of electronic human resource management among University administrators in Rivers State. Based on the foregoing, the researcher accepted the null hypothesis, and confirmed that there is no significant difference between the mean ratings of Federal and State University administrative heads on the extent of utilization of electronic human resource management among University administrators in Rivers State.

DISCUSSION OF FINDINGS

The findings of the study revealed that University administrators' knowledge of electronic training and development, electronic communication, electronic performance management, electronic recruitment and electronic selection was high. This finding is line with Rajalakshmi and Gomathi (2016) who describe the modules and tools of Electronic Human Resource Management to include recruitment system, employee selection system, basic organizational management information system, learning and training system, ideas and creativity exchange system, assessment system, welfare system and career development system. The null hypothesis tested shows that there is no significant difference between mean ratings of Federal and State University administrative heads on the extent of the knowledge of electronic human resource management among University administrators in Rivers State.

The study also revealed that there is a very low extent to which an employees' portal can facilitates internal communication in the university, web-based application for employees to access compensation and benefits, portal that offers employees access to biodata, uses a web-based application management system to improve recruitment, interactive web conferencing services are used in the university to convey messages to various department, university portal that helps staff

to access training programmes, portal enables various department to manage personnel attendance, university portal offers payroll information of employees, and recruitment of employees are done via the university websites. This finding is contradicted with Ukandu, Iwu and Allen-Ile (2014) who found that e-HRM is used in leave administration, staff appointment, monitoring of employment equity matters; validation of headcount, approval of job grades and the analysis of information such as reporting capabilities.

The null hypothesis tested shows that there is no significant difference between the mean ratings of Federal and State University administrative heads on the extent of utilization of electronic human resource management among University administrators in Rivers State.

CONCLUSION

The adoption of electronic human resource management in the university system seeks to reduce employees workload, allowing administrative officers to perform human resource tasks directly with self-service tools. The study has revealed that the extent of knowledge of electronic human resource management by university administrators was high, and very low extent the utilization of electronic human resource management among university administrators in universities in Rivers State.

Recommendations
Based on the findings and conclusion the following are recommended:
1.   University management should provide the needed resources for the implementation of electronic human resource management in the various units of the institutions.
2.   University administrative officers should be trained on the needed skills to efficiently utilize electronic human resource management in the University.
3.   There should be a central access point of employees' contact information using electronic database.

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