ISSN: 4814 - 4067
Volume 7, Number 2, 2023
International Journal of Entrepreneurship, Business and Management

E-RECRUITMENT AND RESOURCE OPTIMIZATION OF RIVERS STATE-OWNED TERTIARY INSTITUTIONS

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ABSTRACT

This study investigated the relationship between E-Recruitment and Institutional resource optimization of Rivers State owned-tertiary institution. The population was 40 Human Resource Managers of the Rivers State Owned-Tertiary Institutions. A census study was adopted. The Cross-Sectional Survey research design was adopted to gather data from respondents. The Spearman's Rank Order Correlation Coefficient was adopted to test the hypothesis at 0.05 level of significance. The Cronbach Alpha was used to test the reliability of the instrument at 0.70 statistically, the finding revealed that, there is a significant relationship between E-Recruitment and Institutional resource optimization of Rivers State Owned-Tertiary Institutions. The study concluded that there is a positive association between predictor and the criterion variables. The study recommended that Management of the institutions should implement a robust e-recruitment system that can revolutionize the hiring process, making it more efficient and transparent. By leveraging digital platforms, institutions can reach a wider pool of qualified candidates, reducing time and resources spent on traditional recruitment methods.

Keywords: E-Recruitment, Resource Optimization, Institutional Productivity

INTRODUCTION

The importance of employees in organizations goes a long way to determine the success of a business enterprise. This is because employees determine the flow and usage of organizational resources. In the words of Moulik and Mazumdar (2012) they are regarded as the active resources that an organization can possess as they are responsible for the usage of other resources of an organization in order to help organization achieve its goal and objectives. The business environment of an organization of today requires that organizations retain their knowledge capital (employees) such that they will be able to compete successfully in a dynamic and ever-changing business environment. The universities system requires the services of employees who are competent, motivated, well-trained and can successfully support the university academician to carry out research in an effective manner in order to achieve the goal and objective of the university both in the local and global environment (Obeidat, Masa'deh and Abdallah, 2014).

Inefficiency has been a major issue battling the service delivery of non-teaching staff in most public universities in Nigeria and this has greatly affected the academic and research outlook of Nigerian universities. The non-teaching department in a university system consists of works, bursary, librarian, medical personnel, exams and records, confidential secretaries, cleaners/messengers, administrative staff, account, security personnel among others. Many of these departments are greatly inefficient at their capacity to function effectively and support the university system to achieve its stated objectives and goals especially in state and federal universities in Nigeria (Iwuoha, 2018).

Similarly, most non-teaching in universities have no knowledge and capacity to handle computers or successfully preside over meetings such that they can take and read minutes of meetings. This issue of inefficiency among non-academic staff has become a menace and has damaged the university image both in the domestic and global level. It has even brought a set back to the

academic activities in the universities (Samuel & Chipunza, 2013). The inefficiency due to lack of innovativeness that is practically prevalent among the non-teaching staff of most federal and state universities in Nigeria especially when it comes to effective and efficient administrative handling of academic activities with regard to issues concerning students, academic staff, financial planning, budgetary system/ allocation, manpower coordination, and planning system is glaring. The lack of effective structure and the rigid bureaucratic system being practiced by these public universities coupled with managerial incompetence of non-teaching staff contributes to the dissatisfaction experienced by students and stakeholders.

Ho_1: There is no significant relationship between e-recruitment and resource optimization of Rivers State-owned tertiary institutions.

E-recruitment

E - recruitment function is a sub process such as long and short-term candidate attraction, the generation, pre-screening, and processing of applications or the contracting and on boarding of new hires. Online job advertisements on corporate web sites and internet job boards, online curriculum vitae databases, different forms of electronic applications, applicant management systems, corporate skill databases, and IS supported workflows for the contracting phase are only few examples of the various ways by which information systems today support recruitment processes (Gurol, Wolf and Ertemsir 2010). In HR planning process it is easier to follow workforce gaps, the quantity and quality of the labour force and to plan future workforce requirements with the help of HR knowledge systems (Dessler, 2005). Human resource information systems can support long range planning with information for labor force planning and supply and demand forecast; staffing with information on equal employment, separations and applicant qualifications; and development with information on training programs, salary forecasts, pay budgets and labor or employee relations with information on contract negotiations and employee assistance needs (Shibly, 2011).

Dery, Grant and Wiben argue that many companies have seen a need to transform the way human resource operations are performed in order to keep up with new technology and reducing the number of employees. The internet has therefore become an increasingly popular way to recruit applicants. Delivering human resource services online supports more efficient collection, storage, distribution and exchange of data (Dery, Grant &Wiben, 2009). Again, this is corroborated by Lengnick-Hall and Lengnick-Hall (2007), who attest that human resource information system provides a comprehensive database; which enables organizations to provide structural connectivity across units and activities and increase the speed of information transactions more particularly in recruitment processes. They observe that in so applying information system in recruitment makes the whole process easy and reducing of recruitment coats.

According to Ruel *et. al.* (2004) the importance of records systems is increasingly being recognized in organizations. Employees require information in order to carry out their official duties and responsibilities effectively and efficiently in a transparent manner. According to Northwest Territories (2002) the role of records system is to ensure that members of staff involved in different operations have the information they need when necessary. Several studies on e-recruitment analysed online recruitment in which most of the firms were using and also to provide appropriate selection of the employees through the module this is in firms in Belgium, United Kingdom and Netherlands. Studies done by Fayyazi and Afshar (2013) on e-recruitment in Iran firms concluded that e-recruitment was mainly about cultural and behavioural change which viewed it as end-to-end process which required updated networks and advertisements. The studies by Kar and Bhattacharya (2009) where they were able to assess relationship between e-recruitment and job satisfaction which they found out that the job portals had been very efficient for applying jobs for candidates and provided adequate customer satisfaction. The HRIS automation has helped the corporate human resource departments to facilitate the outsourcing of human resources (Barron et al, 2004).

The e-staffing systems contain an e-recruitment portal which is a subset of the HRIS system for applications for the recruiting and hiring functions. A good system will mainly automate the majority (70-80%) of the recruiting process. Companies usually used job boards like Monster.com or CareerBuilder and found large increases in applicant numbers, but many are unqualified for the positions due to the mass application being sent by the public. HRIS performs a record-keeping function. In this HRIS system, applicants' information and employees' data can be stored, retrieved and added to whenever the need arises. For example, if an HRM employee is asked to provide information on the academic documents of an applicant or employee, then he or she can quickly and efficiently search for this information in the data directory which contains details of thousands of employees (Kovach and Cathcart 1999). This module necessarily holds the following types of data about the employees: wage history, emergency and regular contact details, education records, training and certificates, disciplinary actions, injuries or illness data, and so forth.

Resource Optimization

Resource optimization plays a crucial role in enhancing business operations and achieving sustainable growth. According to a study conducted by Huang et al. (2022), effective resource allocation and utilization are essential for organizations to maximize their productivity, minimize costs, and improve overall efficiency. In today's competitive business landscape, companies face various constraints such as limited budgets, time constraints, and fluctuating market demands. Therefore, it becomes imperative for businesses to optimize their resources to meet these challenges and remain competitive. Resource optimization involves strategically allocating resources such as finances, human capital, technology, and raw materials in a manner that minimizes waste and maximizes output. By implementing resource optimization strategies, businesses can minimize unnecessary expenses, reduce production lead time, enhance customer satisfaction, and ultimately increase profitability. Moreover, resource optimization also leads to sustainable practices by minimizing environmental impact and promoting responsible resource management. In conclusion, understanding the importance of resource optimization in business operations is vital for organizations to thrive in a dynamic and competitive marketplace (Huang et al. 2022).

Efficient resource allocation and utilization are crucial for optimizing the performance and cost-effectiveness of any system. In the context of network resource management, the work by Sangaiah, Javadpour, Pinto, Chiroma and Gabralla, highlights several strategies that can be employed to achieve this objective (Sangaiah, Javadpour, Pinto, Chiroma&Gabralla, 2023).). One such strategy is dynamic resource allocation, which involves continuously monitoring the resource utilization and adjusting the allocation based on the current demand. This approach enables the system to adapt to changing conditions and ensures that resources are used optimally. Additionally, the authors emphasize the importance of load balancing techniques in resource allocation, which distribute the workload evenly across the available resources. By avoiding resource bottlenecks and maximizing resource utilization, load balancing strategies contribute to improved efficiency. Furthermore, the authors suggest that the use of virtualization technologies can enhance resource allocation and utilization by enabling the creation of virtual instances that can be dynamically allocated to different tasks based on their requirements (Sangaiah, Javadpour, Pinto, Chiroma&Gabralla, 2023). This approach allows for better resource utilization by ensuring that each task receives exactly the resources it needs, without wasting any excess capacity. Overall, these strategies for efficient resource allocation and utilization, including dynamic resource allocation, load balancing, and the use of virtualization technologies, can significantly improve the performance and cost-effectiveness of network systems.

Theoretical Foundation

Technology Acceptance Model

Davis (1989) developed the technology acceptance model (TAM) in studying the determinants of information technology (IT) usage for instance, use of IT in recruitment and selection. The goal of TAM was to provide an explanation of the determination of computer acceptance that is generally capable of explaining user behavior across a broad range of end user computing technology user population while at the same time being both persuasive and theoretically justified (Davis, 1989). TAM can be seen as an adaptation of the generic Fishbein and Ajzeris theory of reasoned action (TRA) and was developed to explain individual system used in the workplace to enhance service delivery such as in recruitment and selection of staff in organizations. TAM posts that perceived ease of use (PECU) and perceived usefulness (PU) are important factors that determine the user attitude toward his/her intention to use and actual usage of IS. According to technology acceptance model, usage behavior is a direct function of behavioral intention which in turn a function of attitude towards usage reflect feeling of favorableness or un-favorableness towards using the technology and PU which reflect the benefit that using the technology will enhance performance. Attitude is determined jointly by PU and PECU. Furthermore, a key purpose of TAM is to provide a basis for discovering the impact of external variables on internal beliefs, attitudes, intentions and usage.

TAM is to predict information system acceptance and diagnose design problems before users have any significant experience with a system (Davis, 1989). Davis has developed scales to measure perceived usefulness, perceived ease of use, attitude toward using, and behavioral intentions to use. These scales have been validated in previous research and were adapted for use in this study. These tools allow researchers and practitioners the ability to apply scales which have already been developed and empirically validated in previous research, thereby avoiding the potentially time-consuming and costly effort required to develop a new measurement instrument. Thus, the variables presented in TAM (as measured by the aforementioned scales) offer practitioners a practical, cost-effective method for evaluating new technology and predicting the degree to which end-users will actually use that technology before the system is actually implemented.

TAM has been found to be extremely robust and has been replicated using different tasks and tools (Adams, Nelson, & Todd, 1992; Mathieson, 1991). In a comparison of several models, Mathieson (1991) found that TAM predicted intention to use a spreadsheet package better than alternative models. The paths suggested by TAM each explained a high degree of variance. Similarly, in another comparison of theoretical models, Taylor and Todd (1995) found out in their study of information systems that TAM provided a good fit to data, explaining the variance in behavior, intention, and attitude. TAM's value lies in its parsimony, specifically; the model is strongly grounded in existing psychological theory, yet is easy and as a result, cost-effective to apply. Furthermore, it makes explicit links to the concept of usability by means of the ease-of use construct.

The reason technology acceptance model was chosen by this researcher is because technology acceptance model has been tested empirically and supported through validations, applications and replications (Schaup*et.al.* 2010, Lee 2010). Technology acceptance model is one of the most powerful, robust and parsimonious model for predicting user acceptance especially in information systems (IS) which is the key subject of this study.. According to Venkatesh & Davis (2000), the parsimony of TAM combined with its predictive power makes it easy to apply to different situations. These perceptions influence the way HRIS is used and hence mediate its effect on organization performance. Perceived usefulness and perceived ease of use including attitude towards using the technology were used to analyze the research questions of e –recruitment and e- training and to explain how e-recruitment and e – training packages enhance the ease of use and usefulness of the HRIS sub systems of e-recruitment, e-training, e-payroll and e-performance management by the employees to enhance public universities performance.

Research Design
The cross-sectional survey design was adopted and used for this study because it enables the researcher to take a snapshot of respondents analyse and as well as generalization, it also was used because of its requirements to collect data from a wide range of subjects to elicit acceptable generalization.

Population of the Study
The population for this study consists of the four-government owned tertiary institutions in Rivers State. The institutions are as follows; Rivers State University, Ignatius Ajuru University of Education Rumuolumeni, Port Harcourt, Kenule Benson Polytechnic Bori and Captain Elechi Amadi Polytechnic Rumuola.

Sample of the Study
This study will focus its data collection to the Establishment Unit of the Registry where personnel matters are handled in these institutions. However, preliminary field survey revealed that there are at least ten (10) managers in each of the Establishment Unit in these institutions. These respondents will be drawn from administrative units, human resources unit, operations. Therefore, the study respondents were 40 HR Managers.

Method of Data Collection Techniques
Primary data will be collected through designed questionnaire to be distributed to all management and supervisory staff of all selected Rivers State owned tertiary institutions in Rivers State.

Method of Data Analysis
The purpose of analysis was to the reduce data to intelligible and interpretable forms so that the relations of the research problems can be studied and tested. Data from the field will be sorted and cleaned. It will then be categorized and coded systematically and entered into the data editor of the Statistical Package for Social Sciences (SPSS) version 23.0. To examine the strength of the relationship between variables, Spearman's Rank Order Correlation Statistics was employed. Analysis and tests for hypothetical statements was based on the adoption of a 95% confidence interval at a 0.05 level of significance.

Results
E-Recruitment and Measures of Institutional Productivity
Table shows the result of correlation matrix obtained for e-recruitment and measures of institutional productivity. Also displayed in the table is the statistical test of significance (p - value), which makes us able to answer our research question and generalize our findings to the study population.

Correlations matrix for E-Recruitment and measures of institutional productivity

			E-Recruitment		Resource Optimisation
Spearman's rho	E-Recruitment	Correlation Coefficient	1.000	.810**	.718
		Sig. (2-tailed)	.	.000	.000
		N	35	35	35

		Correlation Coefficient	.810**	1.000	.767**
		Sig. (2-tailed)	.000	.	.000
		N	35	35	35
	Resource Optimisation	Correlation Coefficient	.718**	.767**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	35	35	35

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output

Table shows a Spearman Rank Order Correlation Coefficient (rho) of 0.718 on the relationship between e-recruitment and resource optimization. This value implies that a strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in resource optimization was as a result of the adoption of e-recruitment. Therefore, there is a strong positive correlation between e-recruitment and resource optimization of Rivers State-owned tertiary institutions.

Therefore, to enable us accept or reject hypotheses 1 and 2 as well as generalize our findings to the study population the p- value was used as shown below:

H_{o1}: There is no significant relationship between e-recruitment and quality service of Rivers State-owned tertiary institutions

Discussion of Findings

E-Recruitment and Resource Optimization

The finding revealed that e-recruitment significantly influences Institutional productivity of Rivers State-Owned Tertiary Institutions. This is in line with Daniel (2019) who examined the impact of e-recruitment on organisational performance. Using qualitative research methods, a onetime survey was conducted in two selected Nigerian commercial banks. Primary data was analyzed using regression analysis and Pearson moment product coefficient) techniques with the aid of Statistical Package for Social Science (SPSS). The findings of this study revealed that the most frequently used forms of recruitment were the internet, newspaper advertisement, TV/radio advertisement, transfer and promotions. The study has established that e- recruitment is a key component of human resource management and thus a building block of an organisation's performance and success. The study concludes that automating the recruitment and selection process by integrating e-recruitment software with the existing recruiting activities provides more competent, cost-effective procedures for human resource hiring managers and line managers. Implementing the following best practices with the support of e-recruitment software ensure that organizations are efficient in identifying and retaining talented individuals.

Also, our findings support the work of Buhari, Akyuz and Opusunju (2021) who examined the effect of electronic recruitment on the performance of First Bank Branches In north West, Nigeria. The study investigates the effect of electronic recruitment on the performance of first bank branches in North West, Nigeria. The study used survey research design. The population of this study comprises of all the branches of first bank Plc in North West, Nigeria which is 98 and 6931 population of employees. Taro Yamane formula was adopted to realise the sample size of 378. The study collected data from the respondents who were employees of First Bank Plc branches in North West, Nigeria. Descriptive statistics, correlation test and regression, were used for analysis. The study found that electronic recruitment has a positive and significant effect on the effectiveness of branches of First

Bank Nigeria Plc, North West, Nigeria. The study recommended that branches of First Bank Nigeria Plc, North West, Nigeria should continue to use electronic recruitment such as e-recruitment agencies and corporate website to ensure that they recruit well-trained employees that should be capable of performing effectively in the organisation to increase output, promote the goal of the organisation and management the resource effectively in the organization.

CONCLUSION

The study concludes that e- Recruitment positively influence institutional productivity of Rivers State-Owned Tertiary Institutions.
Specifically, also and in line with the objectives of this study, the study concludes that e-recruitment positively influences institutional productivity of Rivers State-Owned Tertiary Institutions, Nigeria.

RECOMMENDATIONS

Based on the findings and conclusion above, the following recommendations are hereby made:

1. Management of the institutions should implement a robust e-recruitment system that can revolutionize the hiring process, making it more efficient and transparent. By leveraging digital platforms, institutions can reach a wider pool of qualified candidates, reducing time and resources spent on traditional recruitment methods.
2. Management of the institutions should provide a robust e-performance management system that is essential for setting clear expectations, monitoring progress, and providing constructive feedback. This approach promotes accountability, recognizes achievements, and facilitates regular performance discussions, contributing to a more engaged and motivated workforce.

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