



EFFECT OF E-RECRUITMENT SYSTEM ON PERFORMANCE OF CHARTERED UNIVERSITIES IN KENYA

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Abstract

In recent years, different scholars have attributed the increasing organizational performance and HR functionality to the increased adoption of information systems in HR functions. The introduction of global HRMIS is a key component that can improve the performance of organizations and has been advocated for by management experts for implementation in organizations around the world. Despite the strategies embraced in universities, their performance is not as expected in comparison to the other universities regionally and internationally. The E-Recruitment system is aimed at enabling the universities to ensure they obtain suitable data for employees for positions they apply for and those that are vacant. The objective of the study was to determine the effect of e-recruitment system and the performance of chartered universities in Kenya. The collection of primary data was done using semi-

structured questionnaires which were sent to the respondents through e-mail. Data was analyzed using descriptive and inferential statistics. The E-recruitment system was assessed in terms of applicant tracking, applicant receipt and shortlisting. The findings of regression analysis showed that the E-recruitment system had a positive and significant effect on the performance of chartered universities in Kenya. The study findings suggested that a one-unit increase in the use of the E-recruitment system would translate into an increase in the performance of chartered universities in Kenya.

Keywords: Performance, Human Resource Management, Systems, E-recruitment system, Kenya

INTRODUCTION

Organizations all over the world face a big challenge on how to thrive as a result of the rivalry that is deepened by globalization in the ever-changing competitive environment. One of the main objectives of institutions throughout the world is to achieve desired organizational performance in order to gain an advantage over their rivals (Weeks, 2013). Khashman, (2016) noted that the functioning of enterprises around the world is critically dependent on human resource management (HRM). Various technological advancements exhibit that information is part and parcel of organization resources with the new emerging ideas like cloud computing, blockchain technology, Internet of Things, open data and big data which describe the undercurrents of the information economy and have been extensively explored by numerous researchers in recent times (Ilhami, Tahir & Abdullah, 2016; Khashman, 2016; Morrisson, 2020; Mutuku & Muathe,2020).

In Africa, many organizations including universities have incorporated information systems in the automation of their procedures to reduce costs, improve productivity and achieve a competitive advantage over their challengers (Karanja, 2016). African nations still lag behind in adopting ICT, which widens the digital and knowledge divide even as ICT development continues in Western and Asian nations (Odhiambo, 2018). In terms of technology use, Africa has not been successful in providing integrated services effectively (Troshani, Jerram & Hill, 2011). This is a result of the inability of certain companies in their policies and processes to incorporate existing types of technology.

Chacha (2004) carried out research on evolving issues in African higher education and showed that tendencies indicate the upswing of globalization, internal factors, new stakeholders and the quick speed at which new knowledge is evolving and is being used, posing challenges to universities in Africa and all over the world. The aforementioned author points out that

deficiency of ICT capacity and exploitation in the management of organizations has resulted in major challenges facing universities today, thus creating the necessity to establish the right tools to support the use of systems in universities.

In pursuit of Vision 2030, universities in Kenya are not an exception and have undergone a number of changes such as the expansion of academic programmes, increase in their numbers, increased competition, expanded programmes, the establishment of comprehensive degree programs and expansion of learning centers' which have put them under immense pressure (Gudo, Olel & Oanda, 2011 & Mathoko & Ogutu, 2014). Ngumbi (2010) noted that effective management of universities has become a key issue in Kenya and the growth and development of the institutions have not been successful.

Most Kenyan universities have agonized and still suffer low academic performance, loss of finances, demotivated staff, staff transfers in pursuit of greener pastures and loss of students culminating in the loss of public confidence. This has resulted in poor quality education and the production of ill-considered graduates posing danger to the fulfillment of Vision 2030. Moreover, universities have continuously clinched on IT in their activities for them to remain competitive and noticeable on websites. This is an initiative that assists in ranking universities both locally, regionally and internationally (Bartai, 2014 & Jowi, 2019). Organizations have attempted to create general strategies for their growth, success and formulation of valuable business plans.

BACKGROUND ELUCIDATION

Human Resource Management Information System

Midiwo, (2015) described the information system as a managed service that gives a distinct, centralized view of the information required by HRM to complete HR processes such as recruiting, placement, payroll management and other practices of human resources. The above author describes the concept of HRMIS as a set of individuals, facilities, procedures and policies. Gupta (2017) found that HRMIS enables HR to remain on the cutting edge in an attempt to provide more reliable and streamlined operations.

In addition to collecting and storing data, advances in technology have made it possible to analyze and manipulate data. The development of information technology has contributed to the rapid use of HR to optimize processes, thereby promoting enhanced efficiency of organizations. Research by Hussain, Wallace & Cornelius (2017) credited the adoption of information systems with the increase in the usefulness of HR functions which leads to the realization of the strategic growth plan of an organization. As technology evolves over time, organizations become more complex and their information management requirements increase

thus creating the necessity for relevant information systems to be put in place (Stone, Deadrick, Lukazewski and Johnson, 2015).

Given that not a single organizational process or function can take place in the absence of HR input, the position of the HR function is considered to be a supportive one. The HR role is described as an organizational function concerned with individuals in hiring, recruiting, promoting termination, maintaining records as well as facilitating an organization to meet relevant legal obligations (Anthony, Perrewe & Kacmar, 2019). The HR role relates to the strategic planning and development of an organization. By effectively acquiring, improving and maintaining its resources, which are essential for the smooth operation of the entire enterprise, the HR role becomes competent. Stone, *et al.* (2015), noted that in organizations, the key goals for HR are to attract, select, inspire and retain skilled workers in their positions. The competency of an HR function is determined by its efficiency in acquiring, developing and retaining human capital which is critical for an organization's smooth operation.

Recent studies on electronic HRM have suggested HRMIS in pushing HRM departments towards transformation where HR-related decisions are supported by adequate, descriptive and prognostic information systems (Midiwo, 2015). In addition to the conventional recruiting process, one of HR's key tasks is to collect and preserve complex quantities of data that can be further categorized, cross-checked and maintained for potential use (Akoyo & Muathe, 2017). Owing to the evolving existence of technology, the adoption of information systems by organizations has gained traction in recent years. This is due to increased demands of HR practitioners from consumers and organizations over the years and the rapid speed of technological advances that have implemented processes and streamlined items that were not feasible in previous years. (Chukwunonso, 2013).

E-recruitment system refers to electronic gadgets used in obtaining suitable data for employees for positions they apply for and those that are vacant. Chugh (2014) and Alateyah (2019) argued that the e-recruitment system guarantees performance by ensuring new recruits are posted using the system as well as scanning and storing the application documents. This simplifies the work done by organizations that are using technology in their recruitment processes by the HR persons thus enhancing organization performance in terms of timely access and management of the electronic resumes.

Gupta (2017) argues that the e-recruitment system guarantees performance through monitoring, controlling and influencing the flow of employees from the time they are recruited to the organization to the time when they exit an organization. The indicators of an e-recruitment system that were used in this study are applicant tracking, application receipt and shortlisting as used by (Chugh, 2014 & Gupta, 2017). According to Alateyah (2019) besides the HR

professional, organizations have embraced the use of technology as part of their recruitment plan; this is inadequately comprehended by academic researchers.

PROBLEM STATEMENT

The Kenyan universities' performance has presented poor performance output as compared to the other universities in the region and internationally in the past decade. For example, in the recent ranking, the University of Nairobi emerged as number 1,244 out of 2,000 universities ranked in the year 2019-2020 ranking statistics worldwide. This was the first time a Kenyan university appeared in the top university ranking since 2012 when the ranking was initiated (CWUR, 2020). Regionally during the year 2019-2020, the ranking was as follows; University of Nairobi-20, Kenyatta University-23, Egerton University-30, Moi University-46, Jomo Kenyatta University of Science and Technology-64 just to mention a few (Webometrics, 2020).

The above ranking is based on the web presence, visibility, transparency and scholarly excellence. Based on the above statistics the performance is not good and furthermore, only a few universities appeared in the top ranks in the regional rankings. Extant empirical literature on HRMIS have been conducted in American, European or Asian countries (Ihami, *et al*, 2016; Khashman, 2016; Marshal & Saima, 2014; Weeks, 2013; Khan, Ikhlaiq & Mujtaba, 2012; Yiing & Ahmad, 2009). The majority of these studies were focused on identifying geographical variations in developed foreign countries their results could not be generalized to Kenya, a developing country. This study sought to address this gap.

Research objective

To determine the effect of e-human resource planning system and on performance of chartered universities in Kenya.

Research hypothesis

H₀: E-recruitment system does not significantly affect performance of chartered universities in Kenya.

EMPIRICAL LITERATURE REVIEW

E-Recruitment System and Organization Performance

Alateyah (2019) carried out research to evaluate e-recruitment and its effect on business performance: the function of HRM competencies as a mediating factor in the Saudi Arabian context. The results showed that e-recruitment and business performance are related, both

directly and indirectly. A quantitative technique was combined with a positivist research philosophy. While the current study was carried out in Kenya, the previous study was carried out in Chennai. These are the research gaps that this study endeavors to undertake since it is not possible to generalize the results to the current study. The study used HRM capabilities as the mediating variable but had no moderating variable. Another gap is that the study only focused on one variable which is e-recruitment whereas this study incorporated other variables such as e-planning, e-reassign and e-training to broaden the scope of understanding. Lastly, the study had no moderating variable, unlike this study which utilized a regulatory framework as a moderating variable.

The achievement of organization objectives is depended on the employees who are recruited into the organization who should possess the right skills and competencies for the work. Khashman (2016) carried out research and the results of the study indicated that applications of e-recruitment technologies have a positive effect on organizational performance. Particularly, it was observed that HR staff members in private hospitals exhibited a favorable attitude toward all uses of the human resource information system. Job analysis, recruiting, selection, applications for performance reviews, and communications were the study's variables. To describe the characteristics of the respondents, the study used descriptive analysis. Percentages and frequencies were used and this usually limits the making of inferences and this differs from the methodology used by this study.

Another research gap in the above study is that it focused on the health sector and was carried out in a foreign country whereas the current study was done in Kenya and focused on the education sector. This, therefore, invalidates the generalization of the findings. Akila, Vasantha and Thirumaga (2020) conducted a study to assess the efficiency of e-recruitment for the manpower selection process. The findings indicated that there was an increase in transactions and a decrease in information errors. The research gap in this study is that it was done in Chennai and only focused on one variable that is e-recruitment, unlike this study which was carried out in Kenya and focused on other HRMIS systems such as e-training, e-planning and e-reassign systems.

In Nigeria, research was done on how e-recruitment affects organizational performance (Ezekiel, Afolabi & Adeyemo, 2015) and e-recruitment has a major impact on organizational performance. Further e-recruitment reduced costs of advertising and increased the size of the pool of applicants. The survey research design was used alongside purposive sampling. The research gap in this study is that despite the study having been done in Nigeria the results cannot be applied to Kenya as a country due to the difference in characteristics. Further, the study only focused on one variable which is

e-recruitment and did not consider other variables such as e-training, e-reassign and e-planning like this study thus making the results limiting in scope. Lastly, the study assumed a linear relationship and did not incorporate mediating and moderating variables that this research endeavors to fill.

The results of a study by Midiwo (2015) showed that the use of HRMIS cumulatively provides consistent, reliable and consistent data in recruitment and selection, payroll, training and development and performance management that enables effective and efficient decision-making for organizational competitive advantage on the performance of human resource information systems. This study employed a descriptive research design. A stratified sample method was used to analyze a group of university employees for the research. The present study and this study are different in that they focused on Kenyan public universities, unlike this study which focused on all chartered universities. The study has no mediating and moderating variables thus it assumed the existence of a linear relationship between HRMIS and performance. The research focused on the Seroquel Theory, the De Lone and McLean Information Management Success Model, and the Model of Technology Acceptance. The information Management systems success model was reported to be beneficial in reviewing integrated institutional management information systems usage in Kenyan universities (Bula & Ndung'u 2019).

Tsuma (2017) carried out a study in which the findings showed human resource managers gain more information about the employee and thus are able to know how to comfortably cater for the employees' needs and hence increasing the retention of the workers. In comparison to the current research that focuses on three more variables which are e-planning system, e-training system and the e-reassign system so the findings are suggestive and not definitive. Further, the research focused on multinational corporations and its effects cannot be applied to other fields. The study variables were anchored on the Theory of Reasoned Action, RBV and UTAUT theories whereas this study was anchored on RBV, UTAUT and DOI theories.

METHODOLOGY

Positivism research philosophy was used in this study. Creswell (2009) points out that positivism focuses on the explanation of phenomena objectively as observed in the field and gives a basis for prediction and generalization. The study utilized descriptive designs. For descriptive research design, the study specifically adopted a cross-sectional research design to collect the data for analysis.

Primary data was obtained by means of questionnaires. A semi-structured questionnaire was used to collect primary data from 52 chartered universities in Kenya. The total number of respondents was 397 employees who comprised human resource officers, academic registrars, information communication technology officers and quality assurance officers. The sampling method used was multi-stage sampling whereby stratified sampling was applied then later simple random sampling techniques. This involved dividing the populace into strata and then by an assortment of the appropriate samples at each point. This technique made it easy for all respondents in the strata to be factored in (Nafiu, 2012).

Data was analyzed using both descriptive and inferential statistics. In order to produce graphs, tables, and statistical parameter estimates, data analysis was done using STATA version 15.0.

In order to guarantee that the study complies with ethical standards regarding confidentiality, anonymity, right to withdraw, no deception and the use of informed consent, the researcher took various precautions. According to Selvam (2017), ethical issues are aimed at regulating the research process through adherence to ethical principles to protect the welfare of vulnerable individuals. Since the data in this investigation had strategic significance, secrecy was a top priority. Before data collection was carried out, a permit was obtained from NACOSTI. This was followed by research authorization which was obtained from KU Graduate School. An ethical approval letter was also obtained from KUERC since the data that was used for this study was primary in accordance with Kenyatta University Research policy. Secondly, university permission was obtained and respondents were assured of confidentiality by requesting them to fill out the informed consent form to ensure their privacy. Lastly, the participants were educated on the freedom to pull out at any stage of the study if they feel that the researcher has intentions of deceiving them during the study. The researcher carried out all the above dealings which focused on boosting the willingness and objectivity of the respondents. This study was a low risk due to the nature of the content being collected from the respondents since no sensitive information is required.

RESEARCH FINDINGS

The study analyzed the effect of the e-recruitment system on the performance of chartered universities in Kenya. E-recruitment systems were assessed in terms of applicant tracking, applicant receipt and shortlisting. Table 1 presents the results on the degree to which respondents concurred with the statement being measured on the effect of the e-recruitment system and the performance of chartered universities in Kenya.

Table 1 E-Recruitment System and Performance of Chartered Universities

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Dev
Applicant tracking							
University applies e-recruitment in deployment and monitoring of prospective employees in terms of behaviour and track record	8.5%	4.8%	15.2%	37.6%	33.9%	3.84	1.20
E – recruitment system ensures timely availability of recruitment data for fast job offers	5.5%	8.5%	17.6%	34.5%	33.9%	3.83	1.15
E –recruitment system provides comprehensive database for applicant tracking records for future use and reference	3.6%	3.6%	20.0%	38.2%	34.5%	3.96	1.01
E – recruitment system helps determining of consistency of information during recruitment process	6.1%	7.3%	17.6%	32.7%	36.4%	3.86	1.17
Applicant receipt							
E – recruitment system helps in timely access of job applications documents from prospective job employees	6.7%	8.5%	18.8%	29.7%	36.4%	3.81	1.21
E – recruitment system helps in sending messages of acknowledgement and other notifications to the applicants	5.5%	8.5%	21.2%	30.3%	34.5%	3.80	1.17
E-reassign helps in the organization of data in a more proficient manner in the university for ease of access	7.9%	7.3%	18.2%	29.7%	37.0%	3.81	1.23
E-reassign involves the collection, storage, and retrieval of information concerning employees for future use	7.3%	5.5%	17.6%	36.4%	33.3%	3.83	1.17
Shortlisting							
E – recruitment system helps in the preparation of for both the long and short list during recruitment	9.1%	6.1%	13.9%	33.9%	37.0%	3.84	1.25
E – recruitment system enhances cost reduction in recruitment process in the university	7.9%	7.9%	18.8%	36.4%	29.1%	3.71	1.20
E – recruitment system reduces time for the recruitment process in the university	6.1%	7.9%	20.6%	32.1%	33.3%	3.79	1.17
The university has a higher chance of matching the talents of its current staff to the requirements of the open post for advertisement	6.1%	8.5%	19.4%	30.9%	35.2%	3.81	1.18
Aggregate Mean						3.82	1.18

The study sought to find out whether universities in Kenya had implemented e-recruitment systems that are used in the deployment and monitoring of prospective employees in terms of behavior and track record, ensure timely access to recruitment information for fast job offers, provide a comprehensive database for applicant tracking records for future use and reference and assists in determining consistency in terms of information during the recruitment process. The results presented in Table 1 demonstrate that the majority of respondents agreed, as demonstrated by a mean score of more than 3.87. on the Likert scale indicated a high level of agreement. The findings implied that universities in Kenya had an e-recruitment system which was used in applicant tracking.

In terms of applicant receipt, the study aimed to determine whether recruitment in universities facilitated timely access to job application documents from prospective job applicants and assisted in sending messages of acknowledgment and other notifications to the applicants. The system also assists in the organization of data in a more proficient manner in the University for ease of access. Information about employees is collected, stored, and retrieved in this process for future use. The mean score for the statements were 3.81, 3.80, 3.81 and 3.83 which showed that most of the respondents agreed with the statements.

Finally, the study intended to establish whether shortlisting was done using e-recruitment systems in the universities. The findings indicated that most of the respondents with a mean score of above 3.79 agreed that the E–recruitment system assists in the preparation of both the long and shortlist during the recruitment process. This enhances cost reduction in the recruitment process, reduces the time for the recruitment process and that the university a higher chance of matching the requirements of the open post to the skills of its current team.

The E-recruitment system had an aggregate mean score of 3.82 and a standard deviation of 1.18 which further confirmed that universities in Kenya had implemented e-recruitment systems that were used in applicant tracking, applicant receipt and shortlisting to enhance performance. The study findings support those by Alateyah (2019) who conducted a study to evaluate the influence of e-recruitment on business performance: the mediating function of HRM competencies in the Saudi Arabian setting. The results showed that e-recruitment and business performance are related, both directly and indirectly. Additionally, Khashman (2016) indicated that applications of e-recruitment technologies have a positive effect on organizational performance. Particularly, the study observed that HR staff members in private hospitals exhibited a favorable attitude toward all users of the human resource information system.

Hypothesis Testing

The study used the findings of the overall multivariate regression to test the research hypotheses. The hypothesis was tested at the level of significance of 0.05 where the hypothesis was rejected if the p-value was less than 0.05.

H₀: E-recruitment system does not significantly affect the performance of chartered universities in Kenya.

Table 2 Coefficients for Multivariate Regression Model

Coefficients	β	Std. Error	Beta	T	Sig.
(Constant)	1.06	0.22		4.821	0.000
E-Recruitment System	0.118	0.054	0.143	2.198	0.029

a Dependent Variable: performance of chartered universities

The findings in Table 2 show that the coefficient of the E-recruitment system was $\beta=0.118$, with the P-value =0.029 which was less than 0.05. The findings suggest that the E-recruitment system had a positive and significant effect on the performance of chartered universities in Kenya. The study results suggested that a one-unit increase in the E-recruitment system would translate into an increase of 0.233 in the performance in chartered universities in Kenya. In relation to these findings, H₀₃: E-recruitment system does not affect the performance of chartered universities in Kenya was rejected.

The study findings collaborate with Alateyah, (2019) who established that there is a direct and indirect impact of e-recruitment on performance. The results showed that e-recruitment and business performance are related, both directly and indirectly. The findings concur with, Khashman (2016) who indicated that the applications of e-recruitment systems have a beneficial effect on performance. Particularly, it was observed that HR staff members in private hospitals exhibited a favorable attitude toward all uses of the human resource information system. Job analysis, recruiting, selection, applications for performance reviews, and communications were the study's variables.

The study findings collaborate with the findings by Ezekiel, Afolabi and Adeyemo (2015) who carried out a study to establish whether e-recruitment has a major impact on organizational performance for chartered universities. The findings indicated that e-recruitment reduced costs of advertising and increased in the size of the pool of applicants thus enhancing the overall performance of the organization. The study by Midiwo (2015) agrees with the results that the use of HRMIS cumulatively provides consistent, reliable and consistent data in recruitment and

selection, training and development, payroll and performance management that enhance appropriate decision-making for organizational performance.

CONCLUSIONS

The objective of the study analyzed the effect of e-recruitment system on organizational performance of chartered universities in Kenya. The E-recruitment system was assessed in terms of applicant tracking, applicant receipt and shortlisting. The descriptive analysis results confirmed that chartered universities in Kenya had implemented e-recruitment systems which were used in applicant tracking, applicant receipt and shortlisting to enhance the performance of chartered universities in Kenya. The findings of regression analysis showed that the E-recruitment system had a positive and significant effect on the performance of chartered universities in Kenya. The study findings suggested that a one-unit increase in the use of the E-recruitment system would translate into an increase in the performance of chartered universities in Kenya.

The universities further used E –recruitment system to provide a comprehensive database for applicant tracking records for future use and reference while the E-training system helped in obtaining feedback from the employees regarding training which improved the effectiveness of human resources management. Lastly, the findings established that organizational culture played a critical role in the implementation of HRMIS to improve the performance of chartered universities in Kenya. In conclusion, the findings established that the regulatory framework creates a conducive environment for employees in the universities to utilize HRMIS in order to improve the performance of chartered universities in Kenya.

LIMITATIONS OF THE STUDY

There were five main limitations that the study faced. First and foremost, fewer studies were available to quantify the effects of HRMIS and the organizational performance of universities (Midiwo, 2015). To counter this the researcher made use of other studies that have been previously carried out on HRMIS but done in other contexts and countries. Secondly, the respondents were out of the researcher's control in regard to the information that was filled in the questionnaires. To counter this the researcher had the field assistants guide the respondents. Thirdly, the respondents took longer to respond to the questionnaires sent to them through e-mail. To counter this the researcher through the use of research assistants made efforts to acquire their mobile phone contacts which were used for making follow-ups through calls to the respondents to ensure the questionnaires were received within the stipulated time frame of two weeks.

Lastly, the researcher met respondents who are sceptical of the intent of the study. This challenge was overcome with the use of a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) and a letter from the Graduate School of Kenyatta University (KU). Lastly, this study was carried out when the whole world is experiencing the outbreak of the Corona Virus pandemic. For the protection of the researcher and respondents, the researcher ensured that both the Ministry of Health guidelines and those of the World Health Organization were adhered to through the use of e-mails to minimize contact and spread.

SUGGESTIONS FOR FURTHER RESEARCH

This study focused on the performance of chartered universities in Kenya. Universities have very well-educated staff hence there was educational biases in the study population which may lead to their adoption and use of HRMIS. Future studies should focus on other organizations that have employees with different education levels to establish the effect of HRMIS on organizational performance remains significant. This will address the contextual and methodological gaps. This study also established that HRMIS accounted for 50.1% of the performance difference across Kenya's chartered universities. Additional research should concentrate on determining the impact of other factors that account for the remaining 49.9% of the performance of Kenya's chartered universities.

A further study should also be carried out on HRMIS and the performance of chartered universities using secondary data. To determine the degree of influence of HRMIS on overall university performance, this study used the Kenyan public chartered universities as a parameter. To definitively determine the extent of HRMIS's influence on all universities in Kenya, a comparative analysis that considers private universities should be conducted. The study recommends that an investigation should be carried out on human resource management information systems and performance in other sectors since ICT usage cuts across. This shall assist to ascertain whether the human resource management information system has enhanced performance in those other sectors. The university systems as a whole, as well as HR experts, would benefit much from such information.

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