DBA AFRICA MANAGEMENT REVIEW

THE IMPACT OF HUMAN RESOURCE INFORMATION SYSTEMS ON HUMAN RESOURCE MANAGEMENT PRACTICES IN STATE CORPORATIONS IN KENYA

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Abstract

The main objective of the study was to assess the impact of human resource information systems (HRIS) on human resource management (HRM) practices in state corporations in Kenya. The study adopted a descriptive research design in order to help understand the underlying motivation, perceptions about, and reasons for adoption of HRIS among public corporations in Kenya today. The study adopted a sample of 45 state corporations out of 187. The study used a structured, self-administered questionnaire to collect primary data. Data analysis was based on descriptive statistics and regression analysis. The results were presented in form of tables, charts and graphs. The study findings revealed that across a majority of state corporations surveyed, there were relatively high levels HRIS adoptions complete with among others, integrated HRIS software and a support system for continued improvements and updates. Most state corporations in Kenya have various practices in place that drive HRIS uptake that includes routine reviews of HRIS policies and related procedures and feedback mechanisms through which staff can submit feedback and suggestion for improvements. The regression analysis results revealed that there was a statistically significant relationship between HRIS and human resource management practices; the correlation coefficient for the model was 0.928. The study recommends that, to further improve, HRM practices organizations should continuously upgrade information systems.

Key Words: Human Resource Information Systems, Human Resource Management Practices, State Corporations, Kenya.

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2.0 Introduction

Information Technology (IT) has revolutionized the way businesses and organizations are managed worldwide (Wairimu & Karanja, 2016; Nishad & Anjali, 2017). IT is nowadays considered critical to the success of any organization (Muriithi et al., 2014). Due to global competition, managers are now more than ever required to make faster and better decisions in order for their organizations to remain competitive (Karikari et al., 2015). Organizations are adopting IT because it increases operational efficiency in all the departments in an organization and thus positively influences organizational performance (Khashman, 2016).

One organizational function that has been greatly impacted by IT is the human resource management (HRM) (Kavanagh, Thite & Johnson, 2012). HRM deals with people related issues like human resource planning, recruitment and selection, training and development, performance management, compensation, rewards and recognitions, employee motivation, health, safety and employee welfare. In the past couple of decades, there has been a substantial growing need for adoption and integration of IT among organizations' human resource (HR) departments across the globe (Tran, Thanh, & Phuong, 2013). This has been due to the current realization that the success of any organization depends largely on performance of its human resource (Khashman, 2016; Troshani et al., 2011). The success of an organization will depend on its ability to effectively attract, develop and retain the best human talent in the market place (Kavanagh et al., 2012; Usman, 2012). According to Porter (1990), among all the resources that are available to the organization, the human resource will give it a competitive advantage. Karikari et al. (2015) concluded that HRM is the most important function for every organization because systems in organizations are formed and managed by humans. As such many organizations have dropped the traditional ways of managing their employees and embraced modern approaches which include the use of human resource information systems (HRIS) (Nishad & Anjali, 2017; Shaji & Kavitha, 2017).

HRIS is a management information system that supports any aspect of the HRM function in an organization (Wairimu & Karanja, 2016). In its most basic form HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization's human resources (Beadles et al., 2005; Kavanagh et al., 2012). HRIS combines in one system all the information that organizations typically keep on employees and on positions (Fisher, et al., 2008). It accelerates the successful formulation and implementation of human resource processes such as HR planning; recruitment and selection; performance appraisal; and training and development of employees (Kavanagh et al., 2012). HRIS enables the human resource (HR) department to provide quality information to enhance the organization's decision-making process (Ngai et al, 2008; Mutisya, 2014; Karikari et al., 2015; Shaji & Kavitha, 2017). It thus increases the efficiency and effectiveness of an organization through its HR processes (Hendrickson, 2003). In addition, HRIS helps to shift the role of the HRM from just support to that of a strategic player in the organization by aligning HRM with the

overall corporate strategy for realizing the organizational objectives (Parry & Tyson, 2011; Aggarwal & Kapoor, 2012). According to Fisher, et al. (2008), the last few decades have seen a massive movement towards full-blown and highly integrated HRIS that can do much more than simple inventory.

Like many other developing countries, Kenya has made big strides in the development and use of IT. The use of ICT in Kenya was introduced in the late 1960s with the use of the mainframe type of computers, which were later replaced with microcomputers in the late 1970s and early 1980s. In the 1990s, the microcomputers were replaced with the Client servers, which were used in information sharing and online transactions (Wachira, 2010; Muriithi et al., 2014). As outlined in the country's Vision 2030 document, the Government of Kenya considers ICT as a major pillar in the country's development process. The Kenya Vision 2030 is the national long-term development policy that aims to transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment (Republic of Kenya (ROK), 2007). In this regard, the role of the ICT is to facilitate the provision of equitable and affordable quality information and communication services countrywide (RoK, 2008). Consequently, the Government of Kenya developed and implemented several ICT systems to facilitate its processes; key among these is the Government Human Resource Information System (GHRIS). The system which was designed by the Ministry of State for Public Service (MSPS) is expected to addresses all HR related needs of the Government.

The government of Kenya has adopted the use of HRIS in an effort to improve its service delivery not only in the civil service but also in the state corporations. The government recognizes the important role played by state corporations in promoting economic growth and development in the country. In Kenya, a state corporation is a legal entity created by a government under the state Corporations Act chapter 446 of the laws of Kenya (1986 Rev. 2015) to undertake activities on behalf of the government. Immediately after independence in 1963, the role of state corporations in Kenya was re-equipped under sessional paper no.10 of 1965 into vehicles for the indigenization of the economy. The state corporations were established to facilitate development, redress regional imbalances, increase participation by Kenyan citizens in the economy as well as promote indigenous entrepreneurship (RoK, 1965; Njiru, 2008). According to the Presidential Taskforce on Parastatal Reforms (PTPRs, 2013), state corporations are established to stimulate and hasten economic growth and development. In 2013, there were 262 state corporations in Kenya (PTPRs, 2013). These have since reduced to 187.

According to Sessional Paper Number 10 of 1965, immediately after independence, state corporations in Kenya were established to accelerate economic and social development in the country. More specifically, state corporations were established to correct market failure; exploit social and political objectives; provide essential services like education, health, electricity and water; redistribute income and develop marginalized areas

(Njiru, 2008; Atieno, 2009). However, evidence indicates that many state corporations are not performing as effectively and efficiently as expected (PTFPR, 2013). Over the years, many state corporations have performed dismally and at times have had to be bailed out by the government (Kamau, 2013). According to Atieno (2009), most of the state corporations in Kenya are characterized by inefficiency and the provision of poor products and services.

Poor management of human resources has been identified as one of the key problems that have led to the dismal performance of state corporations in Kenya (Njiru, 2008). This is in spite of the introduction of the use of technology in HRM. A survey of HRM practices, carried out by the Ministry of State for Public Service in Kenya in 2007 found out that HRIS is often underutilized and only used for administrative tasks (Warui, 2016). There is no evidence of the use of HRIS to align the HR role to organizational objectives. Although the importance of HRIS in the management of human resource is evident due to the benefits accrued to the organization, management and employee, it is an area that is under-researched in Kenya (Muriithi et al., 2014). This is supported by Wachira (2010), who opines that the adoption of HRIS remains insignificant and still suffers a low level of investigation, particularly in developing countries. This study aimed to contribute to filling that gap in the relevant literature, by determining the impact of HRIS on HRM practices in state corporations in Kenya. The specifics objectives of the study were to: assess the current level of adoption of HRIS in state corporations in Kenya; establish the types of HRIS used in state corporations in Kenya; and examine the benefits of adopting HRIS in state corporations in Ken

2.0 Literature Review

2.1 Types of Human Resource Information Systems

Organizations normally adopt HRISs that are most suitable to their needs. HRIS is generally categorized according to the level and ease of use (Majumder, 2016). Sprague and Carlson (1982) divided HRIS into three basic categories: Electronic Data Processing (EDP), Management Information Systems (MIS), and Decision Support Systems (DSS). At the operational level, HRIS provides the manager required data to support routine and repetitive human resource decisions (Majumder, 2016). This is what Karikari et al. (2015) refer to as operational human resource information systems, which are used to keep track of employee personal and professional details.

The MIS also known as the tactical human resource information systems are used for analyzing the data, retrieve information and generating reports. They are used by middle managers to support decisions and include job analysis and design information system; recruiting information systems; compensation and benefits information systems; employee training and development systems (Karikari et al., 2015; Majumder (2016).

DSS are specifically designed to help management make decisions (Sprague & Carlson, 1982). These are also called comprehensive HRIS and involve using database management systems to integrate different HR databases to produce reports (Majumder, 2016). Karikari et al. (2015)

refer to them as Strategic Human Resource Information Systems, which help the organization to implement strategic human resource management. According to Lengnick-Hall and Moritz (2003) at this level, HRIS is used to transform HR into a strategic partner with the line business.

According to Rietsema (2016), HRIS systems typically fall under two categories: Human Capital Management (HCM) solutions and Human Resources Management Systems (HRMS) solutions). The HCM systems typically aim at recruiting and retaining employees. They generally include tools for recruitment, on boarding, salary planning, budgeting, goal setting and performance assessment. The objective of an HCM system is to enable management and the HR department to guide employees work toward the achievement of organizational goals. On the other hand, HRMS systems, in addition to having some elements of HCM, have tools to assist employees to efficiently clock in and out, manage their schedules, and easily communicate with each other. An HRMS system offers employee self-service tools like planners, document management, biometric timekeeping, and absence management (Rietsema, 2016).

2.2 Benefits of Human Resource Information Systems

HRIS is a crucial tool in organizational management because it facilitates quick and accurate retrieval of information on HR issues, which in turn enables managers to make informed decisions (Usman, 2012). HRIS gives holistic information about organizational operations, which can be shared among the different departments within the organizations (Kavanagh et al., 2012). In addition to speeding up

transaction processing, reducing information errors and improving the tracking and control of human resource actions, HRIS helps organizations reduce process costs (Lengnick-Hall & Moritz, 2003; Aggarwal & Kapoor 2012). The common objectives of HRIS are to make the desired HR information available in the right form to the right person and at the right time, at a reasonable cost (Nishad, 2013). Evidence indicates that, organizations that have fully implemented and utilized the HRIS systems perform better than those that have not due to its inherent advantages (Nzyoka, 2016).

According to Boateng (2007), a key advantage of HRIS is that it replaces paperwork that is generally slow and susceptible to errors (Aggarwal & Kapoor, 2012). Therefore, HRIS enables the HR department to spend less time on clerical tasks, helps ensure the accuracy of employee data and it enables employees to take a greater role in the management of their information. Other benefits of HRIS to include: improved planning and program development; enhanced employee communications; reduction in data storage costs; increased transparency in the HR system; more meaningful career planning and counselling at all levels; and better value to decision making in organizations by facilitating the design and implementation of internally consistent policies and practices (Gupta, 2013).

HRIS facilitates the HR department by enabling the possession of single database of all employees in the organization, which can be used to make different reports (Aggarwal & Kapoor 2012). According to Nzyoka (2016), the core purpose of the HRIS is to support the HR professionals, to become more strategic business partners

in their respective organizations. For the employees, HRIS provides the possibility of independent access to data, which they can use to do their work or undertake internal training courses. As a result, it encourages employees to make decisions and initiatives on the basis of information obtained in the HRIS system (Aggarwal & Kapoor 2012; Chakraborty, & Mansor, 2013).

2.3 Effects of HRIS on Human Resource Management Practices

HRIS can be used in almost all HR functions, such as storing employee data, HR planning, recruitment processes, training and development, managing payrolls and benefits administration, performance evaluations, occupational health and safety, and employee self-service (Usman, 2012; Chakraborty & Mansor, 2013; Jones, 2017).

Human resource planning (HRP) is generally defined as an ongoing process that ensures that an organization has the right quality and quantity of employees, at the right at the right places and at the right time, doing work for which they are most economically useful (Dessler, 2013). The purpose of HRP is to enable organizations to anticipate their future HRM needs and to identify practices that will help them to meet those needs. According to Karikari, et al. (2015), HRIS is an excellent tool for HRP. HRIS affects HRM activities by making a regular analysis of the human

resource needs of the organization through matching the supply of human resource with the demand for it, and consequently accurately identifying unfilled positions. The use of HRIS will make forecasting of human resource needs timelier, cost effective, and efficient (Usman, 2012).

Recruitment involves all activities directed towards locating potential employees and the attraction of applications from suitable applicants (Dessler, 2013). Recruitment is a crucial HR function because and an effective recruitment strategy can lead to the selection of the best candidate which in turn can contribute not only in keeping cost down, but also in facilitating the processes of succession planning, employee retention, greater employee motivation, and reduced turnover (Usman, 2012). In recruitment, HRIS can be used to track information concerning an applicant's or an employee's qualifications and demographics and other relevant information. It can also be used in storing candidate details and generally managing the information on prospective employees (Rietsema, 2016). Thus, HRIS makes the recruitment and selection process easier because the vacant jobs and the applicants' qualifications can easily be tracked and communicated.

Training and development is the process of acquiring and developing knowledge, skills, capabilities, behaviour and attitudes through learning or developmental experiences (Armstrong, 2010). The objective the training and development function is to ensure that the organization has a committed workforce with relevant knowledgeable, skilled, and attitude needed (Fisher et al., 2009). Due to its importance, training and development should not be done haphazardly, but

carefully planned, designed and implemented and linked to the organizational goals (Dessler, 2013). In training and development of employees, HRIS can be used to set goals and track training progress. It can also provide insight into organizational training needs, select the right persons to be trained and evaluates the effectiveness of training programs (Karikari, et al, 2015). It may also be used to direct employees to online training aids or portals, which help to ensure that all employees are able to train at their convenience (Rietsema, 2016).

Compensation is the total amount of the financial and non- financial pay provided to an employee in exchange for the service they provide to their employer (Fisher, et al, 2008). Ideally, employee compensation should be such that it attracts, motivates and retains the talent that organizations need to function optimally. Organizations can use HRIS for payroll processing and benefits administration. It can be used to gather information such as employee attendance, calculate various deductions and taxes on salaries generate automatic periodic paychecks and employee tax reports. According to Jones (2017), HRIS systems that conduct payroll operations also usually manage benefits information, such as medical coverage and retirement accounts.

Employees may use a self-service module to view or update their own information without necessarily communicating with HR managers. Information accessed may include personal contact information, payroll and pension information, pay slip, provident fund statement, loan statements, assessment reports, training related information, career planning, wellness and safety incidents. Employees can search for

a new career within the organization and be aware of the future trainings (Usman, 2012). HRIS thus enables employees to do their own benefits updates and address changes, therefore freeing the HR staff for more strategic functions.

This study was anchored on the Technology Acceptance Model (TAM) theory. The TAM model was first created by Davis in 1989. The model proposes that when users are presented with a new technology, two factors influence their decision as to whether to adopt it or not. These factors are the perceived usefulness (PU) of the technology, which means the degree to which a person believes that using a particular technology would enhance his or her job performance. The other factor is perceive ease of use (PEOU) of the technology, which means the degree to which the prospective user expects the system to be free of effort and thus easy to use (Shaji & Kavitha, 2017).

According to TAM, the perceived usefulness and perceived ease of use determine an individual's intention to use a system. The theory explains that PU and PEOU can be influenced by external variables, which include social factors, cultural factors and political factors. The attitude to use is concerned with the user's evaluation of the desirability of employing a particular information system application. Thus, behavioural intention is the measure of the likelihood of a person employing the application.

TAM was developed due to concern that workers were not using IT made available to them (Shaji & Kavitha 2017). Therefore, the rationale behind the model was that in order to increase the use of technology, organizations had to first

increase its acceptance. Likewise, knowing the factors that shaped worker's intentions would allow organizations to manipulate those factors in order to promote acceptance, and thus increase technology use. Consequently, TAM theory has been widely used to predict and explain an individual's use and acceptance of an information system (Priyanka, 2012; Shaji, 2017).

The TAM theory is relevant to the study because it enables one to understand why workers may acceptable or not acceptable a particular technology or system. Since the objective of the study is to determine the impact of HRIS on HRM practices, the theory may be used to explain why HRIS is successfully implemented and used in some organizations and not others.

3.0 Methods

A cross-sectional survey was used to establish the impact HRIS on human resource management practices in state corporations in Kenya. This study adopted a cross-sectional descriptive research design because of the inherent advantages. It involves measuring different variables in the population of interest at a single point in time. It is therefore cheaper because it does not require follow-up. The design also allows for the gathering of large amounts of data and in-depth information that may be either quantitative or qualitative that may be used to determine attitudes and behaviour of respondents (Neuman, 2006).

The target population of the study was all state corporations in Kenya. Currently there are 187 state corporations in Kenya, divided into five categories: commercial state corporations; commercial state corporations with strategic functions;

executive agencies; independent regulatory agencies; research institutions, public universities, tertiary education and training institutions (PTPRs, 2013). Judgemental sampling was used was used to get a sample 45 state corporations from the different categories which is 25%. According to Mugenda and Mugenda (2003), a sample of 10% is considered adequate for descriptive study. From each state corporation, the study targeted the HR manager. It is assumed that the HR manager will be best suited to provide information on the selection and installation of HRIS and its usage in the HRM functions.

Data was collected through a self-administered questionnaire consisting of both open and closed-ended questions. The questionnaire was used as the main instrument of collecting primary data because it is an objective way of collecting both quantitative and qualitative data. Besides, questionnaires are easy to administer and analyze (Mugenda and Mugenda, 2003). A research assistant distributed the questionnaires to potential respondents by hand. The advantage of using a research assistant was she could clarify any arising questions if necessary and it also increased the response rate. Data from the respondents was first cleaned, screened, coded and analyzed using SPSS version 20.0. Tables, charts and graphs were used to present and visually communicate the data. The use of tables, charts or graphs makes it easy to interpret data.

4.0 Results

The main objective of the study was to assess the impact of HRIS on HRM practices in state corporations in Kenya.

To address this objective the study sought to establish the level of adoption of HRIS, types of HRIS and the benefits of adopting HRIS in state corporations in Kenya.

To establish the levels of adoption of HRIS in state corporations in Kenya, the study assessed the HRIS infrastructure in place across the state corporations sampled. Findings are as tabulated in Tables 1 and 2.

Table 1: HRIS Infrastructure

	Yes		No		Unsure	
	F	%	F	%	F	%
A telephone or access to a telephone in the office	43	97.7	1	2.3	0	0.0
A mobile phone	43	97.7	1	2.3	0	0.0
Mobile phone with internet access	43	97.7	1	2.3	0	0.0
Whether mobile phone provided by place of business	6	13.6	37	84.1	0	0.0
Electrical power outlets in the work area	41	93.2	1	2.3	0	0.0
Access to own computer at work	42	95.5	2	4.5	0	0.0
Access to shared computer	3	6.8	5	11.4	1	2.3
Internet access via the computer	43	97.7	1	2.3	0	0.0
Someone in the organization qualified to service the computers	44	100.0	0	0.0	0	0.0
If this person located on-site	36	81.8	7	15.9	0	0.0
If not located on site, how often are they available?	7	15.9	0	0.0	0	0.0

The respondents confirmed the availability of HRIS infrastructure as follows: 97.7% confirmed having access to a telephone in their office; 97.7% have a mobile phone with internet access; 95.5% have access to their own computer with only 6.8% indicating that they shared a computer; 97.7% have access to internet via the computer; and 93.2% indicated that there is electrical power outlets in their work area. All respondents confirmed that there is someone in the organization qualified to service the computers, most of whom are located on site (81.8%). The foregoing findings imply that a majority of state corporations in Kenya are adequately furnished with the requisite ICT infrastructure necessary for the installation of HRIS.

Table 2: Support for HRIS

	Yes		No		Unsure	
	F	%	F	%	F	%
HRIS system at place of work	37	84.1	6	13.6	0	0.0
HRIS system/software integrated	33	75.0	6	13.6	0	0.0
System meets current needs	35	79.5	2	4.5	3	6.8
Technical support team/person present for HRIS application	37	84.1	1	2.3	1	2.3
A system present for sending comments for improving HRIS application	32	72.7	7	15.9	1	2.3
Updates or changes made regularly to HRIS application based on feedback received	35	79.5	3	6.8	2	4.5

A majority of respondents (84.1%) indicated that there is an HRIS system at their place of work; 84.1% confirmed there is a technical support team/person present for HRIS application; 79.5% indicated that the system meets the organization's current needs; 79.5% indicated that updates or changes are made regularly to HRIS application based on feedback received; 75.0% confirmed that the HRIS system/software is integrated with other systems; 72.7 indicated that there exists a system for sending comments for improving HRIS application. From the foregoing findings, it can be deduced that in a majority of state corporations, there is a relatively high levels of HRIS adoption with a support system in terms of feedback processes and technical personnel.

Changes in both HRIS software and the organizations require that HRIS systems be upgraded continuously. To determine the levels of HRIS upgrade, respondents were asked to indicate the measures or efforts that had been undertaken by their organizations to upgrade the HRIS systems. The findings are as shown in Table 3. A majority (90.9%) of respondents indicated that their organizations routinely review HRIS policies and related procedures; 75% indicated that their HRIS systems have features through which feedback and suggested improvements may be submitted; 72.7% indicated that their organizations routinely update HR policies based on HRIS feedback; and 63.6% confirmed regular training staff on HRIS. As such, it can be noted that most state corporations have various practices in place that support the upgrading of HRIS systems to accommodate changes in the organizations.

Table 3: Drivers for HRIS upgrade

	Yes		No		Unsure	
	F	%	F	%	F	%
Regular training on HRIS	28	63.6	10	22.7	3	6.8
Manual or handbook on HRIS and/policies	36	81.8	2	4.5	3	6.8
Routine review of HRIS policies and related procedures	40	90.9	1	2.3	0	0.0
Feedback and suggested improvements can be submitted	33	75.0	2	4.5	4	9.1
Updates routinely made to HR policies related to HRIS based on feedback	32	72.7	6	13.6	1	2.3

To establish the kind of systems available to the corporations, the respondents were asked to indicate the type of HRIS software used in their corporations. The findings, as shown is Figure, 1 indicate that the state corporations use different HRIS software as follows: 47.7% use SAP software; 9.1% use Microsoft Access; 4.5% use Oracle; 2.3% use People Soft while 27.3% of respondents confirmed using other software such as Microsoft Dynamics NAV, Inspire HRM, IPPD and Pay point. From the analysis, it can be deduced, that various state corporations have adopted different HRIS software possibly informed by the various features vis-a-vis individual corporations' needs.
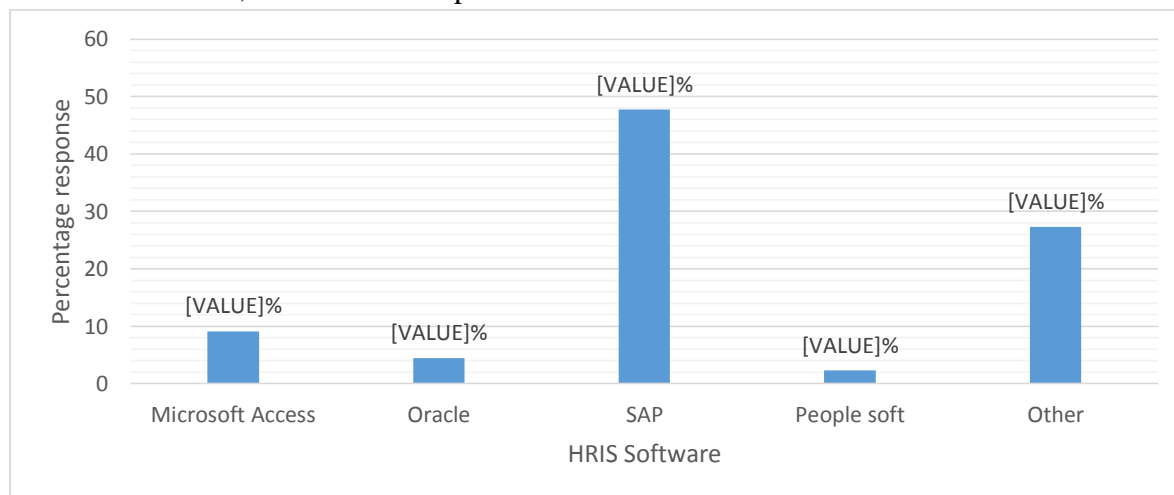

Figure 1: Type of HRIS Software

One of the key features in a HRIS system is the security feature because of the sensitivity of the human resource data. To determine the security of the data while using HRIS, the study sought to assess the security features that had been put in place by the organizations. A majority (72.7%) of the corporations indicated that they secure their data using a login security feature, while (15.9%) frequently backed up their data as a security measure. As such, it can be deduced that most corporations employ adequate measures to ensure the security of their human resource data.
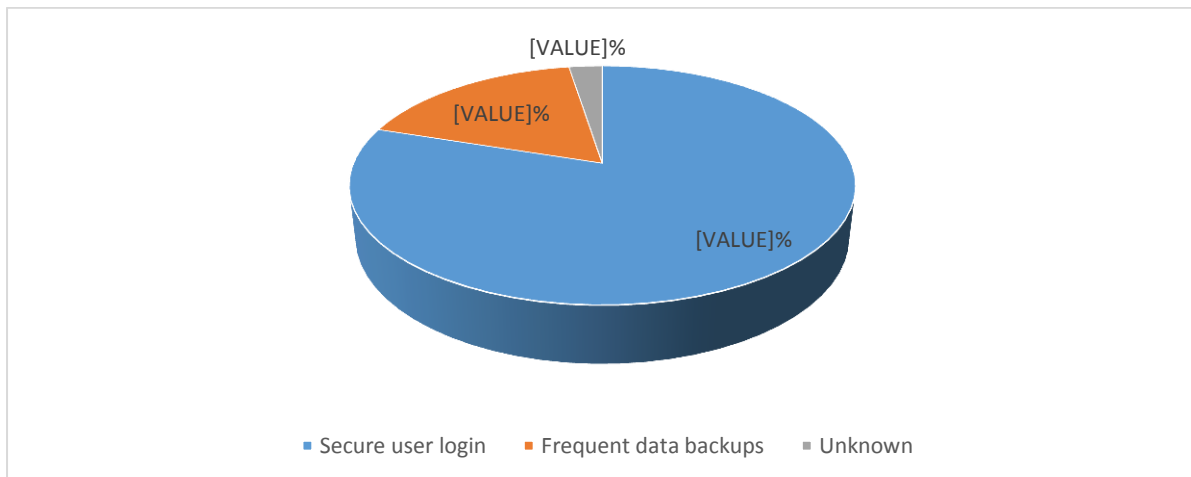
40 |

Figure 2: Data Security Features

To determine the perceived benefits of adopting HRIS by state corporations in Kenya, respondents were asked to indicate the benefits accrued from their use of HRIS over time. As presented in Figure 3, a majority of respondents (56.8%) indicated that they had experienced several benefits including, faster report generation, improved data security, ease of updating records, ease of accessing data and reports and increased data accuracy. A further 13.6% of respondents indicated the ease of accessing data and reports as the main benefit; 9.1% indicated the ease of updating records; 6.8% indicated faster report generation while 2.3% indicated the main benefits as data security and data accuracy respectively. It can be deduced from the foregoing findings that there are numerous benefits that are realized from the use HRIS by state corporations in Kenya.
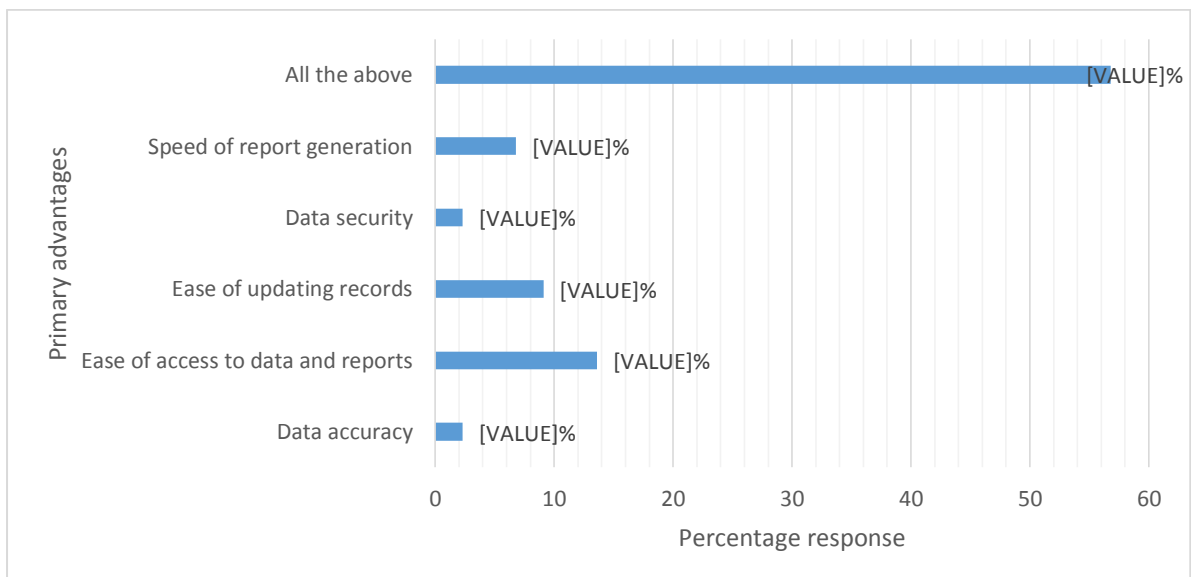

Figure 3: Primary Benefits of HRIS

To assess the relationship between the HRIS and HRM practices in state corporations in Kenya. The study used both descriptive and inferential statistical analysis. On a scale of 5= critical, 4= very important, 3= not sure, 2= somewhat important and 1= not important, respondents were required to indicate the extent to which HRIS is important in various HRM practices. The general level of importance was determined by calculating the means and standard deviation for the various HRM practices. The findings on Table 4 show that the most important HRM practices was employee compensation (mean=4.10, SD=*1.08*) and human resource planning (mean=3.78, SD=*1.05*) followed by employee self-service (mean=3.75, SD=*1.26*), performance management (mean=3.65, SD=*1.03*). Recruitment and selection (mean=3.53, SD=.*68*) and training and development (mean=3.13, SD=*1.20*) have the lowest means.

Table 4: Descriptive Statistics

	N	Mean		Std. Deviation	Variance
	Statistic	*Statistic*	*Std. Error*	*Statistic*	*Statistic*
Employee compensation	40	4.10	.171	1.081	1.169
Human resource planning	40	3.78	.166	1.050	1.102
Employee self service	40	3.75	.199	1.256	1.577
Performance management	40	3.65	.162	1.027	1.054
Recruitment and selection	40	3.53	.107	.679	.461
Training and development	40	3.13	.190	1.202	1.446
Missing	4				

Regression analysis

A regression analysis was conducted where HRIS was the independent variable and HRM practices the dependent variable. The results are presented in Tables 5, 6 and 7.

Table 5: Regression Results for the impact of HRMIS on HRM practices

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.928 a	.861	.836	.472	.861	34.159	6	33	.000

a. *Predictors: (Constant), Implementation of HRIS*

The results in Table 5 reveal that there is a near perfect positive correlation between HRIS and HR practices as indicated by a coefficient of correlation (R) with the value 0.928. This implies that greater adoption of HRIS leads to improvement in HRM practices. It was further established that the adjusted coefficient of determination R Square had a value of 0.836 implying that 83.6% of the variance in the HRM practices can be explained by HRIS while only 16.4% of variations in HRM practices is explained by other factors not included in the current study. The model provides a p-value of 0.000 since p >than 0.5% at 95% confidence, this finding concludes that there is a significant relationship between HRIS and HRM practices.

Analysis of variance

The results in Table 6 reveal that there is a statistically significant relationship between HRIS and HR practices. This is evident from the p value of 0.000, which is below the 0.05 limit.

Table 6: Analysis of Variance

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	45.736	6	7.623	34.159	.000[b]
	Residual	7.364	33	.223		
	Total	53.100	39			

a. Dependent Variables: Human resource planning, recruitment and selection, training and development, performance management, employee compensation, employee self-service.

b. Predictor: (Constant), Implementation of HRIS

Table 7: Regression coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.370	.505		.733	.469
	human resource planning	.768	.138	.691	5.581	.000
	recruitment and selection	-2.548	.246	-1.483	-10.361	.000
	training and development	-.836	.129	-.861	-6.497	.000

employee compensation	*1.401*	*.125*	*1.298*	*11.205*	*.000*
performance management	*.694*	*.096*	*.611*	*7.218*	*.000*
Employee self service	*.639*	*.071*	*.688*	*8.946*	*.000*

a. Dependent Variables: **employee self service, recruitment and selection, training and development, performance management, employee compensation, human resource planning**

The results in Table 7 indicate the regression weights associated with each of the variables as follows: Human resource planning was statistically significant with (p<0.000, β = .0768); recruitment and selection was also statistically significant with (p<0.000, β = -2.548); training and development was statistically significant with (p<0.000, β = -836); employee compensation was statistically significant with (p<0.000, β = 1.401); performance management was statistically significant with (p<0.000 β= -.694); and Employee self- service was statistically significant with (p<0.000, β = .639). These results indicate a significant relationship between HRIS and each HRM practices

In this regression analysis, we conclude that there is a highly positive impact of HRIS on the overall performance of HRM practices in state corporations in Kenya. This finding is in line with that of Mutisya, 2014; Shaji & Kavitha, 2017; Ngai et al, 2008; Karikari et al., 2015, who elsewhere in this study conclude that HRIS increases the efficiency and effectiveness of an organization through their HR processes. In addition, Parry &Tyson, 2011 declare that HRIS helps to shift the role of the HRM from just support to that of a strategic player in the organization by aligning HRM with the overall corporate strategy for realizing the organizational objectives

5. Conclusions

Using both descriptive and inferential statistical analysis the study established that there is a statistically significant relationship between HRIS and human resource management practices with the correlation coefficient of 0.928.

This study concludes that there is a relatively high level of HRIS adoption among state corporations in Kenya. This is attributed to the availability of the necessary HRIS infrastructure such as computers, internet connectivity and the required technical expertise. In addition, the system, which is integrated with other information systems, allows for continuous improvement based on feedback received from the users.

The study also established that state corporations normally adopt different HRIS software according to their organizational needs. The software commonly used includes; SAP software, Microsoft Access, Oracle, People Soft, Microsoft Dynamics NAV, Inspire HRM, IPPD and Pay point. Most of the software is adopted because it comes with adequate security features.

The study further concluded that the use of HRIS by the state corporations in Kenya has many benefits such as faster report generation, improved data security, ease of

updating records, ease of accessing data and reports, and increased data accuracy.

The study recommends that every corporation should critically evaluate its human resource requirements so that they can acquire an HRIS that will best serve their HR needs. Due to the cost and policy implications, the top management needs to be fully involved in the implementation of HRIS. All employee need to be sensitized on the importance of HRIS and be continually trained in its use.

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