

**EFFECTS OF HUMAN RESOURCE INFORMATION SYSTEM ON PERFORMANCE OF COMMERCIAL BANKS IN KENYA: A CASE OF KENYA COMMERCIAL BANK****PERES ADHIAMBO OPIYO****Jomo Kenyatta University of Information Technology, Msc Human Resource Management****Dr. Alice Abok****Lecture, Jomo Kenyatta University of Information Technology****Key word:** Human resource management, Employee, Performance, Systems**ABSTRACT**

*In today's knowledge-economy, organizational success depends tremendously on the performance of human resource management (HRM). Furthermore, Human Resource Management (HRM) has recently turned its concentration of knowledge sharing and strategic workforce analysis and has been increasingly evolving into a significant contributor on the organizational strategic management. The study sought to assess the Effects of Human Resource Information System on Performance of Commercial Banks; a case of Kenya Commercial Bank. More specifically, it aimed at examining how recruitment, training, payroll administration and succession planning affect performance of commercial banks and more specifically in Kenya Commercial Bank. The study adopted a descriptive survey design. The target population of the study was all the 369 staffs of Kenya Commercial bank. The researcher used stratified random sampling method to select the desired sample size of 148 respondents (40%) from the project Managers, HR executives and few staffs. Data collected was cleaned, pretested, validated, and coded, summarized and analyzed using statistical package of SPSS V21. The study findings were presented using graphs, histograms, bar charts and pie charts. Conclusions were derived based on the P.value and the coefficient of determination. E-Recruitment, E-Training, E-Payroll administration and E-Succession planning was found positive and significantly related to performance. HRIS is one of the most important strategic areas for the development of banks interaction with internal and external clients besides product improvement and competition with other banks. It can be more than a tool for following the employees' basic demographic data and working hours. It can be a tool for identifying highly potential employees and directing them to areas of their working interest thereby enhancing performance.*

## INTRODUCTION

In today's knowledge-economy, organizational success depends tremendously on the performance of human resource management (HRM) (Troshani *et al.*, 2011). Furthermore, Human Resource Management (HRM) has recently turned its concentration on knowledge sharing and strategic workforce analysis and has been increasingly evolving into a significant contributor on the organizational strategic management (Rodriguez & Ventura, 2008). This turn in HRM practices is partially attributed to technologies enablers, such as human resource information system (HRIS) which consists of systematic procedures and functions to acquire, store, retrieve, analyze, manipulate, and disseminate relevant information concerning organizational HR (Lippert & Swiercz, 2005). To increase the effectiveness of HRM, organizations are becoming more and more dependent on HRIS (Ball, 2011). At the functional level, HRIS can keep track of employees', applicants', and contingent workers' qualifications, demographics, performance evaluation, professional development, payroll, recruitment, and retention (Harris & Desimone, 2005). When the HRIS function was computerized, fast decision making was able to take place in the development, planning, and administration of HR because data became much easier to store, retrieve, update, classify, and analyze.

In addition, an HRIS can strengthen an organization's character in general (Sadri & Chatterjee, 2008). Tracking information concerning an applicant's or an employee's qualifications and demographics, recruitment, professional development, performance evaluation, payroll, retention, and attrition are essential for success at the HR functional level (Harris & Desimone, 2005). This was supported by a researcher (Troshani *et al.*, 2011), who commented that in order to increase the performance; organizations need to increasingly rely on HRIS.

Accordingly, by facilitating improved access to metrics, HRIS can improve administrative efficiency through faster information processing, improved employee communications, greater information accuracy, lower HR costs and overall HR productivity improvements (Wiblen *et al.*, 2010). However, Wiblen *et al.*, (2010) added that the functions of HRIS comply with organizational interests in maintaining and managing the human capital based on the organizational vision and the strategy of achieving that vision. It supports and integrates various aspects in relation to organizational sustainability strategies, but also in merging HRIS data into large-scale corporate strategy. The data collected from HRIS provides management with decision-making tool. An HRIS can have a wide range of usage from simple spread sheets to complex calculations performed easily (Perry 2010). Through proper HR management, firms are able to perform calculations that have effects on the business as a whole. Such calculations include health-care costs per employee, pay benefits as a percentage of operating expense, cost per hire, return on training, turnover rates and costs, time

required to fill certain jobs, return on human capital invested, and human value added. It must be noted that none of these calculations results in cost reduction in the HR function. The aforementioned areas, however, may realize significant savings using more complete and current data that can be made available to the appropriate decision makers (Akhtar, *et al.*, 2008).

### **Global perspective on Human Resource Information System**

Globalization has contributed immensely to HR thus enabling it to expand its horizons, perspectives and use of technology. This has led to the introduction of global HRIS in a number of multinational organizations and different HRIS opportunities, benefits and challenges have emerged (Farndale *et al.*, 2010). HR Information Systems provide HR with the opportunity to become a more efficient and strategic function by standardizing the majority of the organization's HR processes, improving the quality and speed of available information and improving services to employees (Ball, 2011). These changes form the basis of a highly competitive organization (Gatewood, 2008). If designed correctly the system manages employee data in line with how the organization is managed; hence the need for a multinational organization to implement a global HRIS (Troshani *et al.*, 2011).

Before the 1960s, HRM utilized computer systems to very little limit. During the 1970s, most organizations in USA having larger number of employees had adopted some forms of personnel systems (DeSanctis, 2006). Establishment of systems was supported by reduced costs. According to (Richards-Carpenter, 2012), 40 percent of U.S. corporations had HRIS by the 1980s. HRIS supported decision-making processes to achieve competitive advantage (Broderick & Boudreau, 2012). Swift technological progression especially with reference to globalization has shifted the organizations to knowledge oriented units. Trend setters are altering the organizations to signature modern organizations. It has improved the efficiency of HR departments in the organizations (Thompson, & Fedric, 2007).

Wiblen *et al.*, (2010), postulates that beyond the benefits realized by a standard national HRIS, a global HRIS can put vast amounts of multinational employee data to strategic use. Ideally, the global database is automatically updated by the local databases ensuring data is not only inputted correctly, but only once (Obeidat, 2009). By applying consistent standards for data management, global HRIS reporting becomes more accurate and streamlined as all of the decision makers receive and have access to the same information. This information can then be used for in-depth analyses to help HR and the organization make better, more informed decisions. By applying a consistent process for capturing and maintaining employee specific data (job, position and qualifications (Ball, 2011). The global HRIS can be used to identify, plan and budget for

employee training, succession planning and expatriate assignments. As the “war on talent” continues to loom, a multinational organization with a global HRIS can very quickly and easily discover the right person to fill a specific position. Having the ability to locate the best qualified employee regardless of his or her location is a competitive advantage (Hussain *et al.*, 2007).

Additionally, designing the system to identify which employees are interested in overseas assignments will also make the expensive and time-consuming expatriate process quicker and easier. Colgate-Palmolive’s global HRIS contains specific information on each manager’s experience or awareness of different cultures (Obeidat, (2009). Using the HRIS to think locally, but compensate globally – compensation can be applied fairly across the globe while still being aware of and understanding differences in compensation for similar jobs in various countries (Public Service Commission of Kenya: 2004-2009).

Compensation users are able to review plans in local and additional currencies and languages. A global HRIS can also provide compensation guidelines and help documentation either on or off-line to assist employees in understanding their compensation package and to assist the manager with award decisions and policies (Vernon, 2006). Cadbury Schweppes (SA) Ltd has incorporated a global HRIS that provides each manager with the capability to toggle a compensation model from the direct reports screen and complete planning for each of their direct or indirect reports. The HRIS is then able to immediately show the impact on local and global budgets and expenditures. Organizations may also find that by the time the system is implemented, the vendor has already come out with a new version to make the just implemented system obsolete. Quite simply, a global HRIS not rooted in the global business strategy will fail – as strategy drives the technology it is imperative to align the two. HR processes drawn out from the organization’s strategy should not only be global, but scalable, standardized, and repeatable. One trap organizations often fall into is over-engineering the global HR processes (Grallagher, 1986).

### **Regional Perspective on Human Resource Information System**

Africa has been experimenting with Technology since the 1960’s; it is now time to fully embrace it with the rest of the world as a way of life and especially to manage Human resources. Unfortunately, HR function in Africa has not been proactive in its use of technology to provide integrated services or to communicate more effectively (Troshani *et al.*, 2011). This is because some organizations still rely on sending of parcels and other manual means of communication. The few initiatives made have by and large originated from IT experts. There is need for HR to proactively embrace Technology to elicit responses and fulfill changing expectations within organizations (Ball, 2011).

It is with these perspectives in mind that this paper explores literature and a case study to show how usage of internet technologies has improved HR functions and applications within organizations in the developed world with the insinuation that the same would happen if Africa promoted the use of Technology in HRM. Like in Europe and the America, HR in Africa needs to turn to the available information and communications technologies (ICT) and social media technologies to rationalize or even transform HR's internal operations.

This may lead to the "virtualization" and/or "learning" of HR by reducing substantially the numbers of specialists required to deliver HR services whilst simultaneously improving the quality of these same services (Troshani *et al.*, 2011). Resource constraints, human, physical, and financial, are at the crux of the failure to address many of the issues with organization performance. For example, over the past couple of years, the South Sudan organizations have been working to boost its membership so that they can efficiently deliver. This has been compounded by lack of suitable human and financial resources beyond Juba to provide a sustainable follow-up or to work proactively to prevent conflict and build a capacity and enabling environment for peace. Sadri and Chatterjee (2008), established that organizations lack the ideas on effects of HRIS on organization performance and adequate financial resources from government and that this is the main cause of all secondary problems affecting the organizations. The HR managers should use new technologies such as intranet as a support tool in improving communication with other managers. It will enable them work remotely to provide needed information wherever they may be.

A HRIS is made up of various elements and if one element does not function properly, it could well cause the function of the entire system to fail. When all elements work correctly and the system works properly it should benefit the organization. Similarly the HRIS is usually a part of the organization's larger management information system, which would include accounting, production and marketing functions, to name just a few. The special function of HRIS is to gather, collect and help analyze the data necessary for the human resource department to do its job properly (Akhtar, *et al.*, 2008).

The HR function's limited knowledge of technology is an obstacle to creating and implementing a workable HR technology strategy. The severe lack of IT skills among HR professionals that have limited technological capabilities will make it more difficult to have even a basic global HRIS. It is time to say goodbye to the golden age of transactional HRIS and software – payroll and benefits and hello to the new age of strategic HRIS and software – performance management, succession planning, and competency based compensation and workforce analytics (Greengard, 2005). As HR

aims to transform to a more efficient and strategic function, it must learn how to leverage technology and use it as a competitive advantage.

If strategy is the real driver behind technology, HR Managers actively pursuing a global strategy will be able to guide the organization, the system and the vendors to create new solutions. And HR Executives who are accountable for the success of the global businesses must support the global HRIS effort (Sommer, 2006).

### **Statement of the Problem**

Organizations in the twenty first century are under the pressure of reducing cost of operations and the pressure of being responsive to the local customers' demand. This in turn has an impact on recruitment and selection methods also leading to frequent movement of staff due to stress from office pressure. The banking industry in Kenya has experienced a rapid growth in terms of profits, deposits and revenues thus triggering a lot of competition. This maybe healthy but comes with the challenge of meeting targets. In terms of the efficiency of the HR processes, a typical argument is that a HRIS helps organizations reduce process costs. Although people are a commercial bank's most important asset, there are also significant gaps in the human resource processes that need to be carefully managed if the banks have to stay on top of the competition.

The gaps include the consequences of recruiting people with wrong skills, inadequately training and developing them, losing them prematurely, developing ineffective or misguided payment structures and failing to consider succession planning. These are challenges that commercial banks have to overcome. A study done by Ball, (2011) on the Use of Human Resource Information Systems, show that the effectiveness of HRIS in achieving organizational efficiency has a positive effect on the impact on HR Functions . Similarly, Wachira (2010), conducted a study investigating the reasons for introducing HRIS and revealed that 79% of thirty three firms recognized cost savings as the main driving force. In a similar study conducted by Cheruto (2005) it was found that a good e-recruiting model in a HRIS can reduce the hiring time by two-thirds and lower costs by 90%. There has been far greater emphasis placed on useful measures for assessing the overall benefits of the HRIS investment. Additionally, Lengnick-Hall & Moritz, (2003) revealed that training had a strong positive correlation with the financial performance of the organization.

Despite the fact that Kenya Commercial Bank has adopted the use of HRIS to automate their human resource functions from the manual system, there have been problems on accuracy and timely data from the human resource department. The bank has been faced with a lot of challenges including lack of updated reward system, an inefficient bio-data system, which affects decisions on HR functions (Ambira & Kemoni, 2011).

With the ongoing development of knowledge, economy and information technology use in the banking sector, the realization of human resource information systems at Kenya Commercial Bank has not been comprehensively investigated (Cheruto, 2005).

A number of studies have been done on human resource information system in the banking and corporate sector. Muturi (2003), studied the development of human resource information system in the banking industry in Kenya; Nyakoe (2007), investigated the extent of use of information communication technology in human resource management in large manufacturing firms in Kenya; Kanini (2008), looked at the implementation of strategic information systems in commercial banks in Kenya. Chwodhury *et al* (2013), studied the impact of Human Resource Information System on the performance of firms; a study of selected Bangladeshi banks. The area of effect of Human Resource Information Systems on the performance of commercial banks is understudied. This study will therefore seek to establish the effect of HRIS in saving time and cost in the HR process like recruitment, training, payroll processing and succession planning on the performance of commercial banks.

### 1.3 Research objectives

- i. To assess the effect of e-recruitment on performance of Commercial Banks.
- ii. To establish the effects of e-training on performance of Commercial Banks.
- iii. To determine the effects of e-payroll administration on performance of Commercial Banks.
- iv. To find out the effects of e-succession planning on performance of Commercial Banks.

## LITERATURE REVIEW

### Adaptive Structuration Theory (DeSanctis & Poole, 1994)

Adaptive Structuration Theory (AST) assumes that information systems and organizations are interrelated. Adaptive Structuration Theory (AST) is relevant to today's organizations due to the expanding influence that advancing technologies have had with regard to the human-computer interaction aspect of AST and its implications on socio-biologically inspired structuration in security software applications. AST provides the model whereby the interaction between advancing information technologies, social structures, and human interaction is described, and which focuses on the social structures, rules, and resources provided by information technologies as the basis for human activity.

AST views organizations as systems of communication. When individuals desire to create a group, they begin by communicating. The individuals express their

expectations for the group, and soon a set of rules, or structure, begins to emerge. The individuals establish the group by accepting the rules. As group members continue to communicate in the course of making decisions, weaknesses or limitations in the structure become apparent. Group members then modify the rules to better suit their needs. As members change, draw upon new resources to solve problems or experience shifts in environment, the group attempts to maintain stability by altering its structure. In this way, AST shows how communication allows groups to evolve while remaining stable. Indeed, without communication, organizations would cease to exist. This theory is formulated as the production and reproduction of the social systems through members' use of rules and resources in interaction.

DeSanctis and Poole adapted Giddens' theory to study the interaction of groups and organizations with information technology, and called it Adaptive Structuration Theory. AST criticizes the techno centric view of technology use and emphasizes the social aspects. Groups and organizations using information technology for their work dynamically create perceptions about the role and utility of the technology, and how it can be applied to their activities. These perceptions can vary widely across groups. These perceptions influence the way HRIS is used and hence mediate its effect on organization performance.

### **Social Systems Theory (Ludwig von Bertalanffy, 1956)**

Systems theory can reasonably be considered a specialization of systems thinking; alternatively as a goal output of systems science and systems engineering, with an emphasis on generality useful across a broad range of systems. Social systems theory as developed by Ludwig is an option for the theoretical foundation of Human Resource Management (HRM). After clarifying the advantages of using a grand (social) theory as the basic theoretical perspective, the roots of this social systems theory is the deterministic view of systems as machines. Open systems like organizations are multi-cephalous: many heads are present to receive information, make decisions, direct action. Individual and subgroups form and leave coalitions. Boundaries are amorphous, permeable, and ever changing. But the system must exchange resources with the environment to survive.

The current generation of HRIS automates and devolves routine administrative and compliance functions traditionally performed by corporate HR departments and can facilitate the outsourcing of HR (Barron et al., 2004). In doing so, HRIS not only make it possible for organizations to significantly reduce the costs associated with HR delivery, but also to reassess the need for retaining internal HR capabilities. However, HRIS also provide HR professionals with opportunities to enhance their contribution to the strategic direction of the firm.



First, by automating and devolving many routine HR tasks to line management, HRIS provide HR professionals with the time needed to direct their attention towards more business critical and strategic level tasks, such as leadership development and talent management (Lawler *et al*, 2003). Second HRIS provides an opportunity for HR to play a more strategic role, through their ability to generate metrics which can be used to support strategic decision making hence an enhancer to organization performance.

### **Innovation Adoption Theory**

Human resource Information System (HRIS) has been subject to many studies examining different aspects of it including innovation adoption. Management of human resource in an organization cannot work smoothly if the HRIS is not adopted properly. Diffusion goes beyond the two-step flow theory, centering on the conditions that increase or decrease the likelihood that an innovation, a new idea, product or practice, will be adopted by members of a given culture. Adoption of a new idea is caused by human interaction through interpersonal networks. If the initial adopter of an innovation discusses it with two members of a given social system, and these two become adopters who pass the innovation along to two peers, and so on, the resulting distribution follows a binomial expansion. Diffusion of innovation theory predicts that media as well as interpersonal contacts provide information and influence opinion and judgment. Studying how innovation occurs, E.M. Rogers (1995) argued that it consists of four stages: invention, diffusion (or communication) through the social system, time and consequences. The information flows through networks. The nature of networks and the roles opinion leaders play in them determine the likelihood that the innovation will be adopted.

The distribution of any innovation, whether it is a physical product, process, or ideology, has been likened to the diffusion of one liquid through another, gradually exposing the entire volume to the new element. According to Rogers, all exposed individuals must make a decision about whether to accept or reject the innovation. For some, the decision is instantaneous, but for others, the process is long, requiring deeper investigation of the innovation and its predicted outcomes. Human resource Information System (HRIS) has been subject to many studies examining different aspects of it but innovation adoption. Management of human resource in an organization cannot work smoothly if the HRIS is not adopted properly. The HRIS has to be well adopted by the organization in order to boost its performance.

### **The Resource Based View Theory**

Resource-based theory implies that unique organizational resources of both tangible and intangible nature are the real source of competitive advantage. With resource-based theory, organizations are viewed as a collection of resources that are

heterogeneously distributed within and across industries. Accordingly, what makes the performance of an organization distinctive is the unique brand of the resources it possesses. A firm's resources include not only its physical assets such as plant and location but also its competencies (Moussa & Schware, 1992)

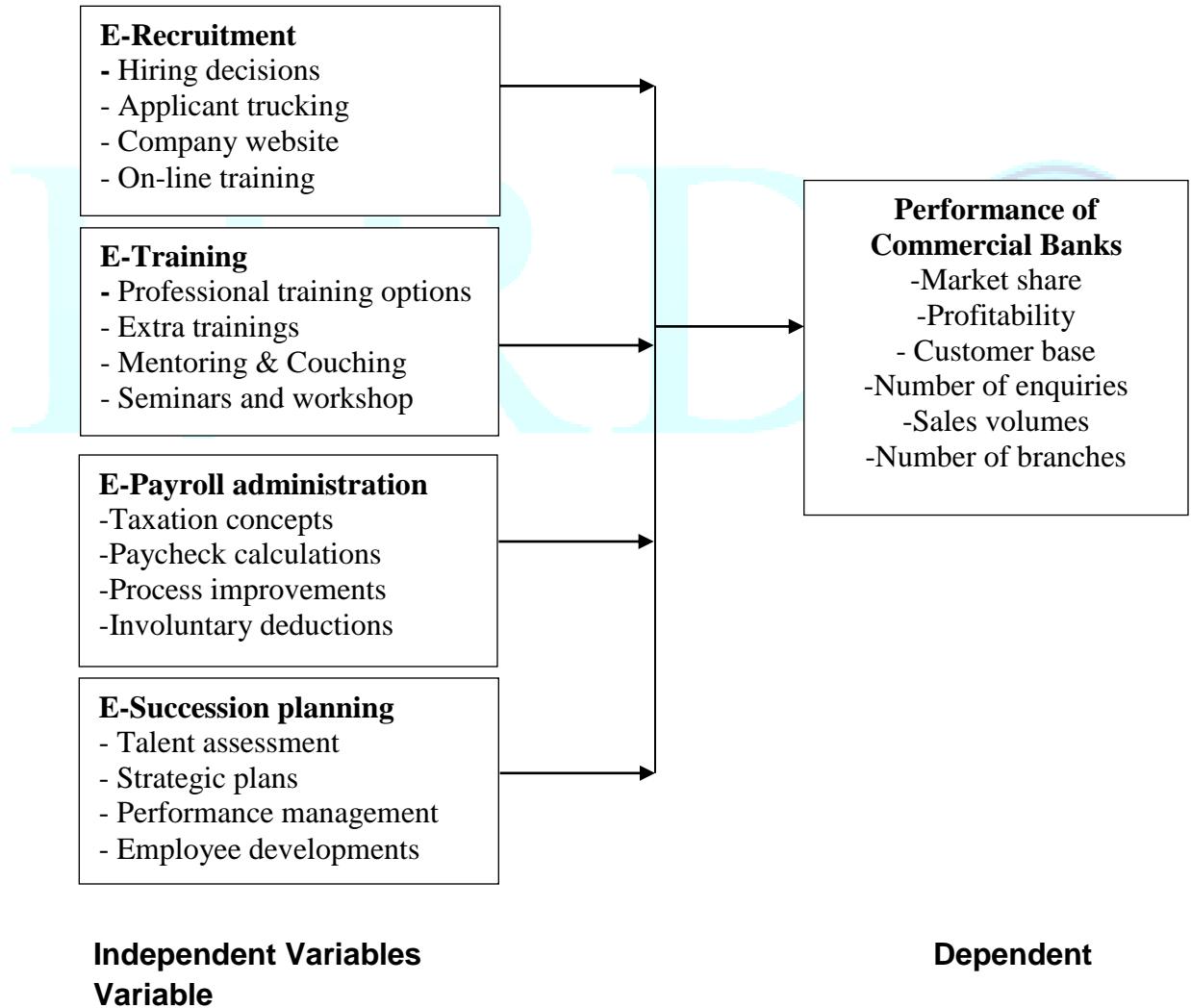
The resource-based view (RBV) as a basis for the competitive advantage of a firm lies primarily in the application of a bundle of valuable tangible or intangible resources at the firm's disposal. To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile. Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable without great effort. If these conditions hold, the bundle of resources can sustain the firm's above average returns.

The resource-based view (RBV) argues that firms possess resources, a subset of which enables them to achieve competitive advantage, and a subset of those that lead to superior long-term performance. Resources that are valuable and rare can lead to the creation of competitive advantage. That advantage can be sustained over longer time periods to the extent that the firm is able to protect against resource imitation, transfer, or substitution. In general, empirical studies using the theory have strongly supported the resource-based view.

Firms cannot gain advantage by playing games with customers. They will sooner or later find a better substitute or another supplier could find opportunity by offering improved services. Further, they mentioned that since Information Technology can easily be duplicated, like any other resources, it will not create any value that is sustainable competitively. The four attributes they studied as possible sources of sustained competitive advantage are; access to capital, proprietary technology, and technical IT skills and IT managerial skills. They found that access to capital is not a source of sustainable competitive advantage, because capital can be raised through numerous means. Similarly, diffusion of IT and expiration of patents, and gradual commonality makes IT quite easily imitable, making it diverge from being a prerequisite to sustained competitive advantage. The mobility of technical IT skill shows that such skills are explicit and easily modifiable, and thus cannot generate competitive advantage. IT managerial skills, which are a skill that is very tacit by nature, developed through years of understanding or realizing the ability of IT and requirements of business can become a source of sustained competitive advantage according to the researchers hence boosting organization performance.

**Conceptual Framework**

Mugenda and Mugenda (2003) observed that a conceptual framework is a hypothesized model identifying the model under study and the relationship between the dependent and independent variables. A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Kombo and Tromp, 2006). According to Kothari (2008) a conceptual framework links the independent variable to the dependent variable. The following conceptual framework depicts the relationship between the independent variable and the dependent variable; it will be based on four independent variables and one dependent variable.



**Figure 1: Conceptual Framework.**

### Empirical Literature

Over the last few decades there has been a considerable expansion in the number of organizations collecting, storing, monitoring, and analyzing information regarding their human talents with the use of Human Resource Information Systems (HRIS) software or other types of software which include HRIS functionality. HRIS refers to a systematic procedure for gathering, storing, maintaining, and recovering data required by an organization about their human resources, personnel activities and organizational characteristics (Lengnick-Hall & Moritz, 2003).

An integrated HRIS may have a wide range of usages from simple spread sheets to complex calculations performed easily. The significance for the execution of HRIS varies among organizations; some use it to reduce costs, others to accelerate better communication and some use it to re-orient HR activities to increase the department's strategic contribution. Smith and Kelly (1997) did a study on the importance of HRIS on organizations and they found that they can effectively attract, develop, and retain diverse group of the best and the brightest human talent in the market place. Many HR (human resource) executives and managers are so busy taking care of their daily duties, which are generally administrative, that they neglect to consider important issues that are coming down the road.

This is a trap that any department can fall into, but it can be especially devastating for HR, which must battle decades of preconceived notions about the department's ability to contribute to corporate planning (Ball, 2011).

### Summary

Almost all HR processes can be done by using HRIS on a daily basis which can benefit the organization in several ways. For instance, as an implication of HRIS the automation of tasks and process reduce the use of resources (financial, material and human). Reduction of HR costs; less usage of paper as well as to assist managers in HR process are some of the examples of reduction of resource usages. HRIS benefits an organization in their HR processes by increasing the efficiency and effectiveness and provides self-service HR (i.e. computer based training, online recruitment). In addition, HRIS produces data as a by- product and has frontend web applications which can transfer part of HR data management to employees and line-managers.

Thus, employees can enter and update data by themselves which create more accuracy of data and saves time and costs. Other authors mentioned some important facts of HRIS are effective human resource decision making and reducing process and administration cost, speeding up transaction processing, reduce information errors and improve the tracking and control of human resource actions. HRIS not only helps the management and HR department but also assists the employees in several ways. HRIS

is able to increase the overall decision making efficiency for the management of an organization. It helps the HR department to possess of single data base of all employees in the company with all necessary information and opportunities of different reports plus, HRIS eliminates the paper forms that are much slower and has a higher likelihood of errors caused by human factor.

For the employees, HRIS provides the possibility of independent access to data, which often means working in one software window as well as keeps automatic tracking and reminder to business obligations and events. In some organizations it also lets the employees attend internal training courses via the web in order to develop their personal skills and knowledge. As a result, it encourages employees to make decisions and initiatives on the basis of information obtained in the HRIS system. In a nutshell, HRIS is a computerized system that assists the process of information related to human resource management and has become a key element to all organizations.

Thus, the importance of HRIS can be seen all-around, such as operational assistance in collecting, storing and preparing data for reports, simplifying and accelerating the processes and controlling the available data, reducing labor costs for human resource departments, and providing timely and diverse information to the management of the organization, based on which it is possible to make quality strategic decisions related to human capital.

### **RESEARCH METHODOLOGY**

The study adopted descriptive research design in order to provide a framework to examine current conditions, trends and status of events. Descriptive research design is more investigative and focuses on a particular variable factor. It is analytical and often single out a variable factor or individual subject and goes into details and describing them.

The Kenya Commercial Bank HQ has a total 1200 staffs, but for the sake of the study, we are going to target 369 employees who include project managers, HR employees and IT staffs who are involved in HRIS of the company.

A stratified random method was used. A random sample of the employees was drawn from the target population and the respondents will be randomly selected from the three levels of staff at the Kenya Commercial Bank, namely the project managers, HR employees and IT staffs since they are the ones who are directly involved with HRIS integration in the organization. The researcher study used a sample of 148 equal to 40% of the target population. This study used self structured questionnaires to collect primary data from respondents.

The study used descriptive statistics and integrates both qualitative techniques in the data analysis and the data was edited, coded and classified so as to present the results

of the data analysis in a systematic and clear way. This was done by the use SPSS V21 software. Quantitative data was computed for inferential statistics with a 0.05 (5%) test significance level. The resulting P. values and coefficients were used to compare the variables, where two sets of the variable were compared to see the extent to which they are related and if they can be used to predict each other.

To determine the weight of the relationship between dependent and the independent variables multiple regression analysis was used.

The multivariate regression model was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + E$$

Where Y is the dependent variable (performance of commercial banks),

$\beta_0$  is the regression coefficient,

$\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  are the slopes of the regression equation,

$X_1$  is the e-recruitment independent variable,

$X_2$  is the e-training independent variable,

$X_3$  is e-payroll administration independent variable,

$X_4$  is the e-succession planning independent variable, while

E is an error term normally distributed about a mean of 0 and for purposes of computation, the  $\alpha$  is assumed to be 0. Kothari, (2004) explains that Error term is the part of the statistical equation that indicates what remains unexplained by the independent variables

## RESEARCH FINDINGS AND DISCUSSION

Test of reliability was done to ascertain if the questionnaires could enable collection of the needed information for analysis. This helped detect weakness in design and instrumentation and to provide proxy data for selection of a probability sample. The In order to test the reliability of the instruments, internal consistency techniques was applied using Cronbach's Alpha. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Mugenda and Mugenda (2003) asserts that, Coefficient of 0.6-0.7 is a commonly accepted rule of thumb that indicates acceptable construct reliability the alpha values of all variables in the study were above 0.70.

### Response Rate

The study sampled 148 respondents from the staffs of Kenya Commercial Bank. However, out of the 148 questionnaires distributed, 122 respondents completely filled in and returned the questionnaires which comprised 82% of the respondents. However, 18% of the respondents were either reluctant to participate or misplaced the questionnaires. This is a reliable response rate for data analysis. This concurs with Mugenda & Mugenda (2003) who pointed out that a response rate of 60% is good and a response rate of 70% and over is excellent.

**Inferential Analysis**

From the average means calculated in the descriptive statistics, the researcher used the means to compute correlation analysis, full regression models and coefficient of determination to establish the true relationship between the dependent variable (performance) and the independent variables (e-recruitment, e-training, e-payroll administration and e-succession planning).

**Correlation Analysis**

This study used Pearson product-moment correlation analysis to establish whether there is an association between the independent variables and the dependent variable. The correlation coefficient can range between  $\pm 1.0$  (plus or minus one). A coefficient of +1.0, a "perfect positive correlation," means that changes in the independent item will result in an identical change in the dependent item. A coefficient of -1.0, a "perfect negative correlation," means that changes in the independent item will result in an identical change in the dependent item, but the change will be in the opposite direction. A coefficient of zero means there is no relationship between the two items and that a change in the independent item will have no effect in the dependent item.

**Table 1. Correlation Matrix**

Variables	Pearson Correlation	E-Recruitment	E-Training	E-Payroll Administration	E-Succession Planning	Performance
E-Recruitment	Pearson Correlation	1	.269	.464**	.348	.661*
	Sig. (2-tailed)		.071	.001	.238	.000
	N	122	122	122	122	122
E-Training	Pearson Correlation	.269	1	.379**	.168	.796**
	Sig. (2-tailed)	.003		.007	.135	.000
	N	122	122	122	122	122
E-Payroll Administration	Pearson Correlation	.464**	.379**	1	.328*	.623**
	Sig. (2-tailed)	.001	.007		.010	.000
	N	122	122	122	122	122

E-Succession planning	Pearson Correlation	.348	.168	.328*	1	.749**
	Sig. (2-tailed)	.238	.135	.010		.000
	N	122	122	122	122	122
Performance	Pearson Correlation	.661**	.796**	.623**	.749**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	122	122	122	122	122

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

\* . Correlation is significant at the 0.05 level (2-tailed).

From the findings, there is a strong positive association between E-recruitment and performance of commercial banks as shown by a correlation coefficient of 0.661 and a p-value of 0.000. The p-value is less than 0.05 and hence the association was significant. In addition, there is a strong positive and significant association between E-training and performance of Commercial banks as shown by a correlation coefficient of 0.796 and a p-value of 0.000. Further, there is a strong positive and significant association between E-payroll administration and performance of Commercial Banks. This is shown by a correlation coefficient of 0.623 and a p-value of 0.000. Lastly, the findings show that there is a strong positive association between E-succession planning and performance of Commercial banks as shown by a correlation coefficient of 0.749 and a p-value of 0.000.

**Regression Analysis**

The researcher conducted a multivariate regression analysis so as to determine the relationship between performance of commercial banks and the four variables. The regression model was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + E$$

Where Y is the dependent variable (performance of commercial banks),

$\beta_0$  is the regression coefficient,

$\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  are the slopes of the regression equation,

$X_1$  is the e-recruitment independent variable,

$X_2$  is the e-training independent variable,

$X_3$  is e-payroll administration independent variable,

$X_4$  is the e-succession planning independent variable,



**Table 2. Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change
1	.817	.682	.647	.76382	.000

The R-squared is the proportion of variance in the dependent variable which can be explained by the independent variables. The R-squared in this study was 0.647, which shows that the four independent variables (e- recruitment e-training, e-payroll administration and, e-succession planning) can explain 65% of the changes in the dependent variable. This shows that the other factors not in the study contribute to the remaining 35% of the dependent variable in (performance of Commercial Bank).

**ANOVA - Analysis of Variance**

**Table 3. ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.854	4	0.2135	1.122	0.000 <sup>b</sup>
	Residual	22.261	117	0.1903		
	Total	23.115	121			

a. Dependent Variable: performance

b. Predictors: (Constant), E.-succesion planning, E- payroll administration, E-training, E-recruitment

The analysis of variance in this study was used to determine whether the model is a good fit for the data. According to the findings, the P.value (0.000) is less than the significance level (0.05) and so this infers that the model was significant, thus the regression model is significant in predicting changes in the dependent variable. The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 1.122), this infers that the independent variables were significantly (P. value, 0.000) related to the dependent variable. This is in line with a study conducted by Perry (2010) which established that embracing HRIS Systems in the organizations leads to higher business performance.

**Regression Coefficient**

**Table 4. Coefficient of determination**

a. Dependent Variable: PERFORMANCE

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	5.124	3.401		1.629	1.012
E- Recruitment	.367	.048	.458	4.398	.020
E-Training	.265	.057	.367	3.243	.000
E-Payroll Administration	.432	.076	.626	5.321	.001
E-Succession Planning	.216	.069	.203086	3.224	.003

Based on this table;

The regression equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ ) becomes:

$$Y = 5.124 + 0.367X_1 + 0.265X_2 + 0.432X_3 + 0.216X_4$$

According to the intercept ( $\beta_0$ ) when the four independent variables are held constant, the value of performance in the Commercial Banks will be 5.124. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in E-recruitment will lead to a 0.367 increase in performance. A unit increase in E-training will lead to a 0.265 increase in performance; and a unit increase in E-Payroll administration will lead to a 0.432 increase in performance. Additionally, a unit increase in E- succession planning will lead to a 0.216 increase in performance.

Ranking the predictors variables in terms of their individual influence on performance, the table shows the relative importance of each predictions i.e. E-payroll administration had the highest effect (0.432), followed by E-recruitment (0.367), and then E-training (0.265) and E-succession planning(0.216) respectively. All the variables were statistically significant ( $p < 0.05$ ).

### **Summary of findings**

The purpose of this study was to find out how HRIS affects performance of commercial banks by assessing the role of e-recruitment, e-training, e-payroll administration and e-succession planning on performance of Kenya Commercial Bank.

### **E-recruitment and Performance of Commercial Banks**

The first objective of this study was to assess the effect of E-recruitment on performance of Commercial Banks. The study established that E-recruitment was positive and significantly related to performance. This implies that online recruiting offers a variety of tools including pre-employment screening, personality assessments and testing to screen candidates to allow you to select qualified candidates who match an organization's values and culture with minimal human interaction. Many recruiting software packages offer a variety of these services that can be customized to meet the organization's specific needs for each job hence boosting business performance.

### **E-training and Performance of Commercial Banks**

The second objective was to establish the effect of E-training on performance of Commercial Banks was also found positive and significantly related to performance. ICT based training programs bring to light certain success factors which include flexibility in the management of learning times, trainers' active participation and the development of control mechanisms that ensure training effectiveness. Delivering training that engages people, motivates them to embrace change and encourages improvement is the key. Supporting employees in identifying their professional development options and targets is the purpose of training employees.

As such, it contributes radically to retention management which in the long run enhances organization performance.

### **E-payroll administration and Performance of Commercial Banks**

The third objective of this study was to determine the effects of e-payroll administration on the performance of Commercial Banks. The study found that e-payroll administration significantly affects the performance of commercial banks. Through proper E-Payroll administration, firms are able to perform calculations that have effects on the business as a whole including the overall performance. Payroll administration is considered an important function for human resource management, since; it is part of retention management and can be used to motivate employees. It involves the creation and management of employee benefits, as well as providing means for employees to be trained in understanding how the benefits work.

### **E-succession planning and Performance of Commercial Banks**

The fourth objective of this study sought to find out the effect of e-succession planning on performance of commercial banks. The study found that E-succession planning significantly affects performance of commercial banks. Succession planning ensures that employees are properly recruited and developed so that they have the skills and experience necessary to step up and fill a key role within the company when the time is right. By illustrating a potential career path and allowing employees to weigh in on the course their path ultimately takes, companies demonstrate their commitment to top performers and help ensure those talented team members are on the bench, suited up, and ready to take the court. In this way the performance of the organization is sustained.

### **Conclusion**

Based on the summary of findings, the study revealed that human resource information system enhances business performance.

E-recruitment was significant on performance. This infers that if Commercial Banks recruits qualified and competent personnel then its business performance will be boosted.

E-training was significant to performance. This implies that commercial banks have embraced e-training and thus helping employees in identifying their professional development options and targets for better performance.

E-payroll administration was significant to performance. This implies that commercial banks have embraced E-payroll administration to reduce costs of peripheral HR functions hence a boost to business performance.

E-succession planning was significant to performance. This implies that commercial banks have embraced leadership development initiatives as corporate strategy for enhanced performance.

In this regard, this research has provided valuable knowledge and information to banking authorities about the importance of HRIS in saving time and cost in the HRM process like E-recruitment, E- training, E-payroll administration and E- succession planning. It can be concluded that the banks which will install HRIS will be able to reduce the cost and time in HRM process in a considerable amount.

### **Recommendations**

Commercial banks need to embrace HRIS for better performance, based on the above conclusions. HRM is one of the most important strategic areas for the development of banks since their front office employees are in continuous interaction with clients and back office employees are responsible for the tasks oriented to constant service, product improvement and competition with other banks. This is where adequate HRIS is

significant. It can be more than a tool for following the employees' basic demographic data and working hours. It can be a tool for identifying highly potential employees and directing them to areas of their working interest. It can give the management the information of not only what was done, but who had done it. It also enables it to give feedback and not just take disciplinary, but also rewarding actions towards employees.

Online recruiting offers a variety of tools including pre-employment screening, personality assessments and testing to screen candidates to allow selection of qualified candidates who match the organization's values and culture with minimal human interaction. Many recruiting software packages offer a variety of these services that can be customized to meet organization's specific needs for each job.

Online recruiting reaches a much larger or more targeted audience than other methods do. E-training will equip the employees with knowledge and skills to effectively and efficiently carry out the tasks which will in the long run enhance performance. E-payroll administration will help the organization perform calculations that have effects on the business as a whole including reduction of costs in HR functions thereby enhancing the overall performance. E-succession planning will help in ensuring that employees are properly recruited and developed so that they have the skills and experience necessary to step up and fill a key role within the company when the time is right.

The study therefore recommends that commercial banks should adopt human resource information system as it was found to give updated quality information. The study also recommends that there is need for the commercial banks in Kenya to invest in technology and training as this will effectively enhance their performance.

### **Suggestions for Further Research**

There is need to replicate the same study in other areas of the economy so as to check whether the same results would hold. Such areas maybe arrears such as manufacturing sector and other service allied sectors. The study recommends that future researchers should perform a longitudinal study to check the trends in adoption of a successful human resource management information system by commercial banks in Kenya. This is because this study was done in one period of time. Additionally, the research was confined to Kenya Commercial Bank and the specific objectives and so the researcher was not able to cover all other areas and variables like e-marketing, among others that needed to be addressed. Further research can be done to cover the effects of marketing information systems in other organizations, and also the study variables can be further analyzed for more conclusive findings since this study can be of benefit to other organization in Kenya and the world. The study also suggests that further research be done on the challenges affecting the implementation of HRIS in organizations.

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