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**INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEMS ON PERFORMANCE OF THE BANKING INDUSTRY
IN KENYA**

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**INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEMS ON PERFORMANCE OF THE BANKING INDUSTRY
IN KENYA**

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ABSTRACT

Information Technology has revolutionized the mode of conducting business all over the world. It is applied in virtually every sector of the world economy. Technology adoption is linked with higher business outcomes. Best practices in human resource management should not be overlooked while embracing technology. In Kenya performance in the banking sector demand that the institutions should have effective systems in place to offset unpredictable events that can maintain their operations and reduce the risks implicated through development. This study sought to fill the existing research gap by to determine the role of human resource information systems on organization performance in banking industry in Kenya. The research design employed in this study was descriptive research design inform of a survey. The population of interest of this study comprised of 41 Commercial Banks in Kenya. Thus the study conducted a census survey owing to the small number of commercial Banks license by Central banks of Kenya. The study employed a purpose sampling to select one respondent (Human Resource Manager) from each company. The study sampled 41 respondents who were the respondent for this study. Self-administered questionnaires were distributed among sampled respondents. A content analysis and descriptive analysis was employed. The data was coded to enable the responses to be grouped into various categories. Descriptive statistics was also used to help in data analysis. Inferential statistics regression was done to determine the role of human resource information systems on performance of commercial banks in Kenya. In addition, a multiple regression was used to measure the quantitative data and was analyzed using SPSS too. The study found that recruiting information systems influence performance of commercial banks in Kenya. The study also established that training and development information system influences performance of commercial banks. The study recommends that management of commercial banks should not conduct training based on the good will of the senior employee but based on the needs of the employees the study found that training programs provides detailed training plan managers and eliminates skill gaps.

Key Words: Recruiting Information Systems, Training & Development Subsystem, Performance, Banking Industry in Kenya

Background of the Study

Human Resources Information System (HRIS) is a Management Information System that supports any aspect of the Human Resource management function in an Organization. According to Hendrickson (2013), HRIS is defined as an integrated system used to gather, store and analyze information regarding an organization's human resources comprising of databases, computer applications, hardware and software necessary to collect, record, store, manage, deliver, manipulate and share HR information to all stakeholders. An effective Human Resource Information System allows organizations to address human resource issues adequately. This helps the workforce deliver high quality services, despite internal and external challenges to the organization. This helps organizations prioritize their organizational and business strategies while effectively managing the changes inherent in their daily operations. (Management Sciences for Health, 2011). Human Resource Information System helps in reducing costs and data errors and helps the human resources professional to create a hierarchy of positions for an organization based on standard titles, job classifications and job descriptions, even spread over diverse geographic locations, offices and facilities. A number of challenges continue to face the Human Resource Information System in various organizations. Specifically, the implementation and use of Human Resource Information system is being hindered by three main challenges: maintaining organizational attention, addressing the complexities associated with people management, and managing user acceptance of the change associated with the system (Wiblen, 2015).

As at 31st December 2014, the banking sector comprised of 44 banking institutions (43 commercial banks and 1 mortgage finance company

- MFC), 4 representative offices of foreign banks, 6 Deposit-Taking Microfinance Institutions (DTMs), 128 Forex Bureaus and 2 Credit Reference Bureaus (CRBs). Out of the 44 banking institutions, 31 locally owned banks comprise 3 with public shareholding and 28 privately owned while 13 are foreign owned (CBK, 2014). The number of bank branches increased by 75 from 1267 in 2013 to 1342 branches in 2014 indicating increased access to banking products and services.

The number of banks ATMs increased by 267 from 2680 in December 2013 to 2947 in December 2015 representing an increase of 9.9%. 6 large banks accounted for 56 percent of total assets, 54.5 percent of customer deposits, 57 percent of capital & reserves and 66.1 percent of pre-tax profit in 2014. In the year 2014, access to financial services continued to be enhanced, spurred by increased innovation in the delivery of financial products and services throughout the country. The banking sector registered enhanced growth in the year 2013, with a 25.4 percent increase in the total net assets from Ksh.2183.3 billion in December 2012 to Ksh. 2,323.1 billion in December 2013. In terms of profitability, the sector registered 11.6% growth in pretax from Kshs 23.1 billion in April 2012 to Kshs 25.8 billion at the end of April 2013 (<https://www.centralbank.go.ke/>).

Performance In Banks

Organizational performance is an indicator used to measure the ability of an organization to meet its set objectives (Yilmaz & Ergun, 2008). It can be assessed by an organization's efficiency and effectiveness of goal achievement (Robbins & Sanghi, 2007). Organizational performance is based upon the idea that an organization is the voluntary association of productive assets, including human, physical, and capital resources, for the purpose of

achieving a shared purpose. Performance is organizational ability in producing something related to desired targets (Brooks, 2006). Performance is work results achieved by someone or a group of people in an organization, in accordance with their respective authority and responsibility to reach the organizational goal legally, without breaking laws, and in accordance with moral and ethics (DuBrin, 2012).

Epstein (2010) points out that performance refer to the quality and quantity of individual or group work achievement. A number of studies have applied different ways to measure organizational performance. Schein (2011) reviewed organizational effectiveness models, integrated these measurements of organizational performance from various studies, and generalized these measurements into three dimensions: financial performance, business performance and organization effectiveness. Bulach, Lunenburg and Potter (2012) suggested two ways to assess organizational performance: Organizational performance and market performance.

Organizational performance is concerned with product or service quality, product or service innovation, employee attraction, employee retention, customer satisfaction, management/employee relation and employee relation while market performance is concerned with organizational marketing ability, total growth in sale, and total profitability (Yilmaz & Ergun, 2008). Researchers have used financial and non-financial metrics to measure organizational performance. This study was concerned with non-financial metrics to measure organizational performance since Compassion International (CI) is a non-financial organization. Non-financial measures include productivity, quality, efficiency, attitudinal and behavioral measures such as

commitment, intention to quit, and satisfaction (Kandula, 2006).

Farashahi and Molz (2010) observe that culture is strength but can also be a weakness. As a strength, culture can facilitate communication, decision making and control, and create cooperation and commitment. As a weakness, culture may obstruct the smooth implementation of strategy by creating resistance to change. Singh (2011) asserts that an organization's culture could be characterized as weak when many subcultures exist, few values and behavioral norms are shared, and traditions are rare. In such organizations, employees do not have a sense of commitment, loyalty, and a sense of identity. Rather than being members of an organization, these are wage-earners. Traits adopted by organizations that have weak cultures include: politicized organizational environment, hostility to change, promoting bureaucracy in preference to creativity and entrepreneurship, and unwillingness to look outside the organization for the best practices (Kotter & Heskett, 2005).

Information Technology has revolutionized the mode of conducting business all over the world. It is applied in virtually every sector of the world economy. It is used in healthcare, agriculture, manufacturing, service industries to mention but a few. There is always a convergence between IT and any business or industry. The use of Information Technology in business operations brings efficiency and effectiveness which translates to cost cutting and profitability in any business domain. The initial cost of installing Information systems may be high and prohibitive, but in the long haul, the benefits are tremendous and priceless. Previously, organizations have deployed management information systems in all other functional departments of an organization but relegating human resources operations to the back burner

(Kinnie & Weitzel, 2009). This is slowly changing and human resources management practices can now be automated from the hiring stage to the final stage of separation.

Statement of the Problem

The performance of the banking industry in Kenya has improved tremendously over the last ten years (Mwega, 2009). Moreover, only two banks have been put under CBK statutory management in this period compared to 37 bank-failures between 1986 and 1998. However, despite the overall good picture a critical analysis indicates that, not all banks are profitable. As noted by Central Bank of Kenya, small and medium financial institutions which constitute about 57 percent of the banking sector posted a combined loss before tax, of Ksh 0.09 billion in 2010 compared to a profit before tax of Ksh 49.01 billion posted by the big financial institutions (CBK, 2011). The huge profitability enjoyed by the large banks vis-a-vis the small and a medium bank suggests that there are some significant factors that influence the performance of commercial banks in Kenya.

Technology adoption is linked with higher business outcomes, (Cedarcrestone, 2011). This development in ICT in Kenya needs to be taken up fully so that Kenya can benchmark with the best in the world. Best practices in human resource management should not be overlooked while embracing technology. This has not been happening in developing countries including Kenya. The use of information systems in human resource management should be taken up so that developing countries can be efficient in service delivery, effective and ultimately competitive globally. Now that Kenya is doing very well in terms of ICT infrastructure mainstreaming, organizations should

leverage on this development and computerize all their operations.

In Kenya performance in the banking sector demand that the institutions should have effective systems in place to offset unpredictable events that can maintain their operations and reduce the risks implicated through development (Roehm and Sternthal, 2006). Kenya commercial banks have adopted development strategies in various ways which include Human Resource Information Systems. During the period of development, they have experienced performance in aspects of human resource information systems. The sector posted a profit of 48 billion in 2013 which was 14.3% growth from 2012. This result jumped by 28.4% in 2013 and 35.1% in 2014 (CBK, 2014). Would adoption of Human Resource Information Systems be the source of this impressive performance in the banking industry?

Objectives Of The Study

The general objective of the study was to establish the influence of human resource information systems on performance of commercial banks in Kenya. The study was guided by the following specific objectives

- To examine the influence of training and development information systems on performance of commercial banks in Kenya
- To analyses the influence of performance management information systems on performance of commercial banks in Kenya

LITERATURE REVIEW

Introduction

This chapter reviews the existing literature, information and publication on the topic related to the research problem by accredited scholars and researchers. This section shall examine what various

scholars and authors have said about performance assessment of county government supplies units, in particular it will cover the theoretical review of literature, conceptualization of the research problem empirical review of the literature and critical review and research gaps.

Theoretical Review

This study was guided by the technology acceptance model, resource based view theory, and acquired need theory and reinforcement as it seeks to establish the influence of human resource information systems on performance of commercial banks in Kenya. TAM model specifies the causal relationships between system design features. Resource based view theory explain how information technology can help improve firm performance. The Acquired Needs Theory explain employee motivation while reinforcement theory will be used in this study to explain the employee's underlying needs and cognitive processes to the rewards and punishments in the work environment.

Technology Acceptance Model (TAM)

The technology acceptance model specifies the causal relationships between system design features, perceived usefulness, perceived ease of use, attitude toward using, and actual usage behaviour. Overall, the TAM provides an informative representation of the mechanisms by which design choices influence user acceptance, and should therefore be helpful in applied contexts for forecasting and evaluating user acceptance of information technology. TAM is one of the most influential extensions of Ajzen and Fishbein's theory of reasoned action (TRA) in the literature. It was developed by Fred Davis and Richard Bagozzi (1989), Bagozzi, Davis and Warshaw (1992). TAM replaces many of TRA's attitude measures with the two technology acceptance measures ease of use,

and usefulness. TRA and TAM, both of which have strong behavioural elements, assume that when someone forms an intention to act, that they will be free to act without limitation. In the real world there will be many constraints, such as limited freedom to act (Bagozzi, Davis & Warshaw 1992).

Bagozzi, *et al* (1992) say: "Because new technologies such as personal computers are complex and an element of uncertainty exists in the minds of decision makers with respect to the successful adoption of them, people form attitudes and intentions toward trying to learn to use the new technology prior to initiating efforts directed at using. Attitudes towards usage and intentions to use may be ill-formed or lacking in conviction or else may occur only after preliminary strivings to learn to use the technology evolve. Thus, actual usage may not be a direct or immediate consequence of such attitudes and intentions (Bagozzi, Davis & Warshaw 1992).

New technologies are adopted by bank to manage their human resource information, technology acceptance model explain how the bank adopt new technologies to manage their human resource information system, thus the study seek determine the role of human resource information systems on performance of commercial banks in Kenya.

Resource Based View Theory

The resource-based view (RBV) proposed by Wernerfelt in 1984 is a major theory that has been adopted to analyze the issue. The basic argument of RBV is that firm performance is determined by the resources it owns. When RBV is applied to analyze the effect of information technology (IT), it is considered as an organizational resource that can enhance organizational capabilities and eventually lead to higher performance.

When RBV is applied to analyze the value of IT, information systems are usually considered to be a

type of resources. Barney (1991) argues that organizational resource that can create advantage must have the following attributes: Valuable (the resource can enable a firm to conceive or implement strategies that improve its efficiency or effectiveness), Rare (the resources should not be possessed by a large number of competing firms), Imperfectly Imitable (the resources should not be easily imitated due to unique historical conditions, causally ambiguous, or social complex) and Non-Substitutable (The resource should not be easily replaced by other substitutes). The major dependent variable in the RBV model is firm performance. Previous research has used a number of indicators to measure firm performance. These indicators fall into two general categories: finance and efficiency. Financial Indicators include commonly used measures such as return on investment, return on equity, and return on sales, revenue (Devaraj & Kohli 2000) and sales (Zhuang & Lederer 2006). These indicators usually can show the firm's capability in making profits.

Bharadwaj (2001) linked the IT capability with firm performance. IT capability according to her is the ability to mobilize and deploy IT-based resources in combination or co-present with other resources and capabilities. She classified IT resources into three categories: Firstly, IT infrastructure: This is simply the physical IT infrastructure that forms the core of the firm's IT assets. Mata *et al.*'s (1995) work that IT per se cannot be a source of sustained competitive advantage. She mentioned that such view is nothing but reductionist that seeks to value the infrastructure solely in terms of individual components, ignoring the synergistic view of benefits from integrated systems. The author compares integrated versus non-integrated IT and mentioned that the non-integrated category constrains an organization's choices and clearly has little impact on a firm's overall performance.

All these researchers use resource based view theory to show how information systems are used to improve firm performance. Thus the study used the resource based view theory to explain the role of human resource information systems on performance of commercial banks in Kenya.

Acquired Needs Theory

McClelland, a well-known psychologist at the Harvard University, studied employee's behaviour. He used the Thematic Apperception Test (TAT) to measure employee motivation in satisfying various needs and found out that employees craved the need for achievement, the need for power and the need for affiliation (Kreitner & Kinicki, 1998). The acquired needs theory focusses on the diversity of people and is rooted in culture. It assumes that needs are acquired or learned on the basis of our life experiences. When a need is strong, it will motivate the person to engage in behaviour that satisfies that need. Achievement is represented by the drive to excel, accomplish challenging tasks to achieve a standard of excellence. Achievement motivation depends on childhood, personal and occupational experience and even the type of organisation. According to this theory some people have a compelling drive to succeed. They strive for personal achievement rather than for the rewards of success. They have a strong desire to do something better or more efficiently than it has been done before. Individuals high on achievement needs often make good entrepreneurs running their own business (Johns, 1996).

Kreitner and Kinicki (1998) state that the need for achievement is defined by the following desires: to accomplish something difficult; to master, manipulate, or organize physical objects, human beings or ideas as rapidly and as independently as possible; to overcome obstacles and attain a high standard; to excel one's self; to rival and surpass

others; and to increase self-regard by successful exercise of talent. According to McClelland, as cited by Robbins (1998) the need for power is the desire to influence and control one's environment. The need for personal or institutional power can be a motivator in organisations. This is the desire to have an impact and to feel that one is in charge. Kreitner and Kinicki (1998) points out that the need for power reflects an individual's desire to influence, coach, teach, or encourage others to achieve. People with a high need for power, like to work in groups and are concerned with discipline and self-respect. Kreitner and Kinicki (1998) add that there is a positive and negative side to this need. The negative side is characterized by an "if I win, you lose" mentality.

People with a positive orientation to power focus on accomplishing group goals and helping employees obtain a feeling of competence. Human resource information system helps the organization to encourage their employee to achieve their goals, thus the study uses the acquired need theory to explain the role of human resource information systems on performance of commercial banks in Kenya.

Reinforcement Theory

Reinforcement theory was formulated by Skinner and is based on Skinner's classical experiments (Hellriegel *et al.*, 2001). It shifts emphasis from the employee's underlying needs and cognitive processes to the rewards and punishments in the work environment. The two underlying assumptions of the theory are that human behaviour which is followed by a pleasant consequence is more likely to be repeated. Hellriegel *et al.*, (2001) provide an example of an employee who receives a reward (a bonus, a compliment, or promotion) for superior performance. The employee is likely to continue performing well in anticipation of future rewards.

The other assumption is that if the consequence of a particular behaviour is unpleasant (management's disapproval or a demotion), the employee will tend to modify that behaviour.

Human Resource Information System are used in the organization to reinforce employee performance thus improving employee performance, this study uses the reinforcement theory to determine the role of human resource information systems on performance of commercial banks in Kenya.

Conceptual Framework

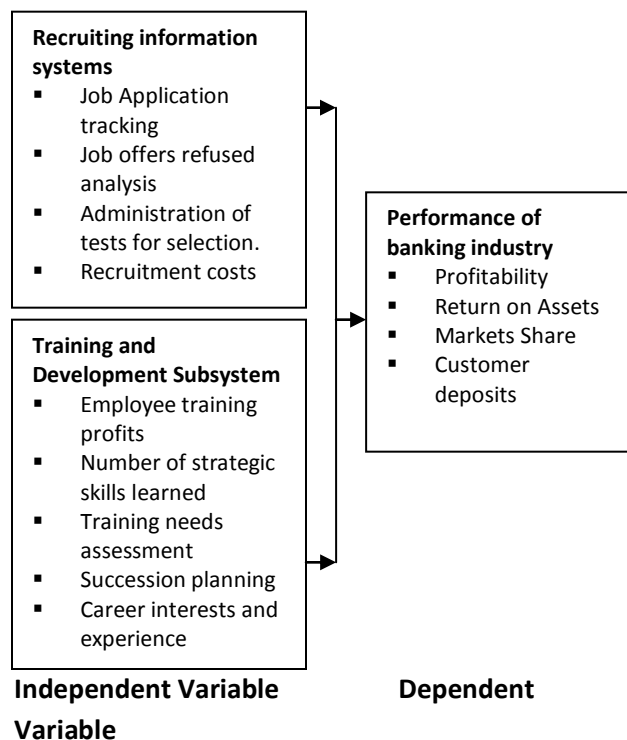


Figure 1: Conceptual Framework

Recruitment and Selection Information System

Recruitment can be defined as all activities directed towards locating potential employees and the attraction of applications from suitable applicants. The aim of recruitment is to get the best person suited to the job based on objective criteria for a particular job. But staffing means the process of

selecting and train individuals for specific job functions and charging them with the associated responsibilities. According by Chapman and Webster (2013) the process of recruitment may begin with advertising vacancies, this may be done internally or externally or both and can be achieved using a range of media, which may involve using the HRIS.

Breaugh and Starke (2010) stated the impact of HRIS recruitment and staffing as: the cost, speed of filling job vacancies, psychological contract fulfillment, Satisfaction and retention rates, Quality and quantity of applicants and the diversity of application. For example, HRIS recruitment can decrease cycle time and increase the efficiency of the process by allowing organizations to spend less time gathering and sorting data. HRIS quickly generates information since the system gives and updates information to the employee about the job vacancies. Besides that, this system also makes selection process easier because the employers and candidates can save a lot of time to describe the vacancies and their requirements through internet. Using HRIS in recruitment and staffing will indirectly enhance the productivity in organization because the administration can easily update all the information via using this system.

Training and Development Information System

Training is essential for job success. It can lead to higher production, fewer mistakes, greater job satisfaction and lower turnover. The human resource information system is a method by which an organization collects information about people and jobs. HRIS is designed, basically, to: Offer adequate, comprehensive and ongoing information system about people and jobs; and Supply up-to-date information at a reasonable cost; Offer data security and personnel privacy (Beckers & Bsai, 2012).

A HRIS is designed to monitor, control and influence movement of people from the time they join the organization until the time they decide to leave the organization; Recruitment information; Personnel administration information; Manpower planning information; Training information; Health information; Appraisal information; Payroll information and Personnel research information. HRIS carries out all services relating to Training and Development programs for organizations like: Training needs analysis and development needs analysis; Designing a training strategy to underpin corporate strategy; audit of the training function; designing learning and development systems tailored to the company's specific needs; Evaluating the effectiveness of training programmes; Prioritizing of the training budget and Surveys in the area of corporate training (Breaugh & Starke, 2010)

Empirical Review

Recruitment and Selection Information Systems

Recruitment is the process of searching for and attracting an adequate number of qualified job candidates, from whom the organization may select the most appropriate to field its staff needs. The process begins when the need to fill a position is identified and it ends with the receipt of résumés and completed application forms. The result is a pool of qualified job seekers from which the individual best matching the job requirements can be selected. Selection is the process of choosing individuals with the relevant qualifications to fill existing or projected openings. Data and information about applicants regarding current employees, whether for a transfer or promotion, or outside candidates for the first time position with the firm are collected and evaluated (Kovach & Cathcart, 2009).

The Internet is considered as the latest tool in hiring. It is a real revolution spreading over the

world of job hunting and hiring. The term online recruitment, e-recruitment, cyber recruiting, or Internet recruiting, imply the formal sourcing of job information online. House and Hoffman (2011) defined e-recruitment as the utilization of Internet for candidate sourcing, selection, communication and management throughout the recruitment process. In recent years Internet has made an impact on the human resource field (Bussler & Davis, 2012). Organizational recruitment efforts have increasingly relied on computer technology. Employers can electronically advertise jobs, scan and store resumes, conduct test, and contact qualified applicants by using the power of the Internet to match people to jobs.

The main advantages for Internet supported recruiting are: Lower costs of recruiting (savings in invitations for application, postal-costs, data-processing costs). Quicker process of recruitment: period from the point when the need for a new employee is sensed until the point when he starts doing his job is reduced, Possibility to attract better and more candidates – invitation for application published on a website can also be spotted by those, who are currently not seeking new employment actively. Web-based HRISs have enabled potential candidates to apply for jobs from anywhere in the world and this information stored in an organization's database (Tansley *et al.*, 2011).

There is a need for companies to have a conceptually sound framework (person: job-fit) and a cost-effective, speedy and convenient system (online testing) at their disposal to meet their personnel selection needs in a highly competitive environment (Chapman, & Webster, 2013). These days, one way of doing so is via online recruitment, a method of attracting job candidates via the Internet (Cullen, 2011). As a practice, it is agreed

that e-HRM leads to considerable changes and therefore should be taken as an important development in the HR field (Lepak, & Snell, 2008). In times of fierce competition, being able to attract high-quality human resources is considered a true competitive advantage for organizations (Gatewood, Gowan & Lautenschlager, 2013). This attraction of potential employees and to get them to accept offers of employment has given recent recognition to the important role that recruitment plays in assuring organizational success (Grossman, 2010).

There are two types of e-recruiting systems. An applicant tracking system tracks demographic information, as well as the skills of applicants and those interviewed. The search feature of applicant tracking systems can screen out the qualified resumes based on certain predefined criteria, resulting in huge timesaving for HR. Letters or e-mails can be automatically sent by the system to unqualified applicants. The second system is called a hiring management system (HMS). The primary difference between it and the applicant tracking system is that the HMS uses job boards and corporate websites to create a match from a pool of applicants. An email is sent to the company when the system receives a resume that matches the recruiter's desired qualifications. This means a quicker interview, which reduces time to hire. Prospective employees can receive an offer more quickly, so a talented applicant does not disappear to another company. Passive candidates are also reached through push technology, making them aware of positions that match their skills (Thapisa, 2014).

Indeed, the Internet offers several things: access, speed, precision, targeting ability, efficiency, cost and time effectiveness. A good recruiting system

can reduce the hiring time and lower costs. Undoubtedly, when compared with newspaper ads, the Internet offers much lower recruitment costs (Bussler & Davis, 2012). Moreover, the Internet enables functionalities within the HRIS or specialist recruitment management system (RMS). First of all, it helps creating a vacancy, usually by transferring job data from the Organization Management module upon a position being shown as vacant, or potentially vacant. Secondly, it is possible to advertise the vacancy on the company's intranet or external web site, or via third-party recruitment sites. RMS enables the recording and administering of applications and the management of the selection process, through workflows to route actions between managers, applicants and HR staff (Schuler, 2010).

Training and Development Information Systems

Training/Learning and development is the process of acquiring and developing knowledge, skills, capabilities, behaviour and attitudes through learning or developmental experiences. It is concerned with ensuring that the organization has the knowledgeable, skilled, engaged and committed workforce it needs (Armstrong, 2009). Training and development can no longer be based on the good will of the senior employee to train his/her subordinates (Glaveli & Kufidu, 2015). The training and development intervention needed to be carefully designed and implemented and linked to organizational goals and strategy, for the training investment to pay-off (Glaveli & Kufidu, 2015). The training and development function is essential for changing of behaviour and culture and reinforcing the new behaviour and culture.

Training is the tool for enhancing the knowledge of employees on the new employee role and expectations and the services and products offered

through induction courses. Training is also a tool for improving the skills in need (sales skills, communication skills, service skills, etc.), the productivity and effectiveness of employees. There are differences between training and development practices relative to organization size, and small firms face unique barriers, including access to, time for, and the cost of training (Sambrook, 2015).

According to Glaveli and Kufidu (2015) the training approach is continuous, systematic and strategy oriented. The training process consists of four phases: Training needs analysis (TNA), the design phase, which involves the creation of the training activity. this phase, formulates and implements a detailed training plan, referring to: training objectives and content, staff subject to training, involved resources, methodological options, training delivery channels-media, centralization/decentralization of the activity, specific objectives and outcomes, the implementation phase, which refers to the understanding of the participants' background and characteristics, the close observation of the instructor's behaviour, measurement of participants' perception level and participants' satisfaction and finally the training evaluation. It is necessary to ensure that the training activity is progressing towards the intended objectives. The evaluation phase measures mainly participants' satisfaction with the training program.

Training resources, like other resources in the organization, are limited. To utilize training resources to the best advantage, companies must put a fair amount of effort in training needs assessment (Tao *et al.*, 2016). Training need is a gap between a current set of circumstances and some changed or desirable set of circumstances, and needs assessment is the process of measuring (as

scientifically as possible) or appraising that gap. The word circumstance in this definition can be substituted with words such as proficiency (knowledge, skills, and attitudes), performance or situation. Though companies may adopt various training models or processes, they all need to establish a training information system as a reference for determining an effective training plan.

HRIS consists of one of the automated training needs assessment tools. Tao *et al.* (2016) have presented an integrated framework of a web-based training needs assessment system to effectively and efficiently assist organizations in their pursuit of competitive core competencies. It shows that HRD professionals do recognize the power of web technology in helping them become more efficient. According to Glaveli and Kufidu (2015), an electronic model based on skills development and the evaluation of employees sustains the training and development effort.

Learning management system (LMS) software is normally available within HR packages or can be purchased separately, requiring integration with the core system. Web-based LMSs can be used by managers, employees and training staff to plan and administer all types of learning intervention, for example, courses, e-learning and coaching. Typically, such systems will hold a range of data: a catalogue of learning options, pre-requisites and course dates; a learning resource inventory; a record of learning expenses incurred; competency/learning requirements associated with positions/jobs against which employees' competency appraisals may be profiled; employee learning data (learning plan, training history, competencies, and qualifications) from the personnel administration database.

LMSs are particularly useful where the acquisition of qualifications is mandatory, for example, in a regulatory environment. E-learning can be launched from many LMSs, and the results stored automatically upon completion of modules or the entire course. This requires integration between the LMS and the e-learning system, and various industry interface standards are now available to facilitate this. Some LMSs contain authoring tools for creating e-learning content, and this type of more comprehensive package is known as an integrated learning system (ILS).

Performance management also lends itself to web-based HR systems or specialist add-ons, allowing the recording and monitoring of objectives, training plans, logs and appraisals. Specialist succession planning software can also be used to record who are appointed for which jobs, and what development they will require before succeeding to them (Breaugh & Starke, 2010).

Human Resource Information Systems and organization Performance

Over the last decade there has been a considerable increase in the number of organizations gathering, storing and analyzing information regarding their human resources through the use of Human Resource Information Systems (HRIS) software or other types of software which include HRIS functionality (Barron, Chhabra, Hanscome, & Henson, 2014; Hussain, Wallace, & Cornelius, 2007). The growing adoption of HRIS by organizations combined with the increasing sophistication of this software, presents the Human Resource function with new challenges.

The role of HR can be enhanced through the combination of improved access to metrics and the automation of existing administrative functions thus enabling HR to make a greater contribution at a

strategic level. HRIS has the potential to assist the HR function in developing business strategy and thus enhancing organization performance (Levenson, & Boudreau, 2014; Lengnick-Hall & Moritz, 2013). The potential of HRIS to deliver the strategic competencies remains largely unrealized and that instead HRIS is used to increase administrative efficiency and/or obtain compliance support. Specifically, the implementation and use of HRIS is being hindered by three main challenges: maintaining organizational attention, addressing the complexities associated with people management, and managing user acceptance of the change associated with the system (Lengnick-Hall & Moritz, 2013).

Social constructionist views offer insights into the implementation and use of HRIS, for example, the Technology Acceptance Model. Thus a technology is seen to be characterized by 'interpretative flexibility' and various 'relevant social groups' who articulate and promote particular interpretations of it. This meaning, over time tends to become accepted and the interpretation of the technology stabilized (Dery *et al.*, 2016).

The study will use the balanced scorecard because the BSC is meant to include measures that have a direct impact on firm survival but may take longer than a quarter to impact the firm's performance. Thus, assessments over time are essential and linking non-financial measures to future firm performance is critical to establish the utility of these measures. The study will utilize the BSC because these measures give top managers a fast but comprehensive view of the organization's performance. Reliance on one instrument can be fatal. Similarly, the complexity of managing an organization requires that managers be able to view performance in several areas simultaneously. A

balanced scorecard or a balanced set of measures provides that valuable information (Said, Hassab, Elnaby & Wier, 2013).

RESEARCH METHODOLOGY

This chapter provides the methodology of the study. It gives the specific procedures that were followed in undertaking the study. The research design employed in this study was descriptive research design in form of a survey. The major purpose of descriptive research design is to describe the state of affairs as it is at present. According to Mugenda and Mugenda (2008), a descriptive research is a process of collecting data in order to answer questions concerning the status of the subjects in the study. The target population for this study was 42 Commercial banks in Kenya (CBK, 2015). This study was a census survey of all 42 commercial banks in Kenya. In choosing census survey, the practicalities and cost of undertaking a census, representativeness and the nature of the survey as well as population were considered. The study conducted a census survey owing to the small number of commercial Banks licensed by Central banks of Kenya. The study employed a purpose sampling to select one respondent (Human Resource Manager) from each Bank. The study sampled 42 respondents who were the respondent for this study. Questionnaire was designed to determine the role of human resource information systems on performance of commercial banks in Kenya. This made it easier to get adequate and accurate information necessary for the research. The researcher used structured questionnaires as the main data collection instrument. The questionnaires had both open and close-ended questions. A pilot test was conducted with 10 management staff to test the reliability and the validity of the data collection instrument (Kothari, 2004). The questionnaire was tested with a selected

sample which was similar to the actual sample. Subjects in the actual sample were not used in this pilot study. The pilot study enabled the study to be familiar with research and its administration procedure as well as identifying items that required modification. Reliability is concerned with the question of whether the results of a study are repeatable. The term is commonly used in relation to the question of whether the measures that are devised for concepts in business are consistent. One factor that might affect the reliability of the study is the respondents' lack of knowledge. It is further suggested that if a respondent at the moment is tired or stressed, or have attitudes toward the questionnaire/interview it can impact negatively on the reliability of the study (Eriksson & Wiedersheim-Paul, 2001). Moreover, reliability is particularly an issue in connection with quantitative research. The quantitative study is likely to be concerned with the question of whether a measure is stable or not. A pilot test was conducted by distributing the questionnaire among 10 management staff which ensured that the questionnaire was appropriate and the aspects investigated was generally understandable. In order to check reliability of the results, study used Cronbach's alpha methodology, which is based on internal consistency. SPSS software was used to verify the reliability of collected data. The data was collected from the organization's departments such as strategic, finance and planning. This issue confirmed the validity of the data and relevant results. Before processing the responses, the completed questionnaires were edited for completeness and consistency. Descriptive analysis was employed to analyze the quantitative data. The content analysis was used to analyze the respondents' views about to determine the role of human resource information systems on performance of commercial

banks in Kenya. The data was coded to enable the responses to be grouped into various categories.

DATA ANALYSIS, INTERPRETATIONS AND PRESENTATION

This chapter discusses the interpretation and presentation of the findings obtained from the field. The study targeted a sample size of 41 respondents from which 35 filled in and returned the questionnaires making a response rate of 85.36%. A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved sample pilot group of 10 senior employees of commercial banks in Kenya. The results of the reliability test revealed that the two variables were reliable as the average index of 0.816 exceeded the adopted threshold of 0.7. Based on demographic information, findings established that majority of the respondents showed that 64 percent were male while 36 percent of the respondents were female. The study also sought to establish how long the respondent had worked in the organization. From the findings the study revealed that most of the respondents 48 percent indicated 2 to 6 years, 23 percent of the respondents indicated 7 to 10 years, 18 percent of the respondents to indicated below 2 years while 12 percent of the respondents above 11 years. This implies that majority of the respondents in commercial banks in Kenya had worked for a considerable period of time and therefore they were in a position to give credible information relating to this study. The study established that majority of the respondents 52 percent indicated bachelors, 22 percent indicated masters, 18 percent of the respondents indicated diploma while 8 percent indicated PHD. This indicates that the employees of commercial banks in Kenya were educated well enough to understand the questions and thus would give credible information related to the study.

Training and Development Information System

The study requested the respondent to indicate their level of agreement with statements relating to the effects of training and development information system on performance of commercial bank. From the findings, the respondents strongly agreed that in their organization HRIS assessed the budget of training and development programs by a mean of 1.40. the respondents further agreed that in our organization HRIS plays a vital role administrating training programs by a mean of 1.49, managers find HRIS detailed training plan relevant to their needs by a mean of 1.57, In our organization HRIS eliminates skill gaps across the organization by a mean of 1.74, In our organization HRIS reduces training and development costs in an organization by a mean of 1.86, In our organization HRIS selects right persons to be trained at right time by a mean of 1.91, In our organization HRIS provides insight into organizational training needs by a mean of 1.97, In our organization employees find HRIS training programs relevant to their needs by a mean of 2.03 and that the outcome of HRIS training needs analysis (TNA) is accurate by a mean of 2.40. These findings were supported by a low standard deviation which is an indication that the respondents held similar views.

Recruiting Information Systems

The study sought to establish the extent to which recruiting information systems influence performance of commercial banks in Kenya. From the findings the study established that majority of the findings 69 percent indicated to a great extent, 18 percent of the respondents indicated to a great extent, 12 percent of the respondents indicated to a little extent while 8 percent of the respondents indicated to a no extent at all. This is an indication that recruiting information systems influenced performance of commercial banks in Kenya to a

great extent. The study requested the respondent to indicate their level of agreement on statement relating to influence of recruiting information systems on performance of commercial banks in Kenya.

Influence of Recruiting Information Systems On Performance

From the findings the respondents agreed that in our organization HRIS helps to maintains relationships with individuals who register in a talent warehouse shown by a mean of 1.57, In our organization HRIS performs comprehensive reporting and tracking of applicants efficiently shown by a mean of 1.63, in our organization HRIS helps eliminates unsuitable applicants early and focuses on promising candidates a mean of 1.69, in our organization HRIS helps to analyses each job position and its job title a mean of 1.80, in our organization HRIS supports development of recruiting plan by a mean of 1.83, in their organization HRIS helped to identified unfilled positions accurately and In our organization HRIS administers selection tests and rates job candidates appropriately by a mean of 1.89, in the organization HRIS helps to recruit candidates through e-recruiting by a mean of 1.97, in our organization HRIS maintains skill inventory of all employee shown by a mean of 2.03, in our organization HRIS leverages employee's talent in the right place at the right time shown by a mean of 2.06 and our organization HRIS helps analyses employees in each position by a mean of 2.11. These findings were supported by a low standard deviation which is an indication that the respondents held similar views.

Performance

The study sought to determine the performance of the bank and therefore requested the respondent

to indicate the performance of their business in the last 5 years. From the finding the study established that average annual profit for the banks was between 2.6 billion to 17.5 billion, the study revealed that average return on investment was between 11.6% to 21.1%, the study also found that the average market share was between 11.5% to 47.3% while the average customer deposit was between 67 billion to 343 billion. The study sought to establish whether human resource information system plays a key role in the performance of the respondent's bank. From the findings, the study established that majority of the respondents 84 percent of the respondents indicated yes while 16 percent of the respondents indicated no. This is an indication that human resource information system plays a key role in the performance of commercial banks.

SUMMARY OF FINDINGS CONCLUSION AND RECOMMENDATIONS

This chapter presents the discussion of key data findings, conclusion drawn from the findings highlighted and recommendation made there-to. The conclusions and recommendations drawn were focused on addressing the objective of the study. The researcher had intended to establish the role of training and development information systems on performance of commercial banks in Kenya and to establish the role of recruiting information systems on performance of commercial banks in Kenya.

Summary of The Findings

Training and Development Information System and Performance

From the findings on the influence of training and development information systems on performance of commercial banks in Kenya. The study found that training and development information systems assesses the budget of training and development

programs, training and development information systems plays a vital role administrating training programs, managers find training and development information systems detailed training plan relevant to their needs, training and development information systems eliminates skill gaps across the organization, training and development information systems reduces training and development costs in an organization, HRIS selects right persons to be trained at right time, HRIS provides insight into organizational training needs, employees find training and development information systems training programs relevant to their needs and that the outcome of training and development information systems training needs analysis (TNA) is accurate. These findings concur with that of Glaveli and Kudifu (2005) who asserts that training and development can no longer be based on the good will of the senior employee to train his/her subordinates and that the training and development intervention needed to be carefully designed and implemented and linked to organizational goals and strategy, for the training investment to pay-off.

Recruiting Information Systems and performance

The study established that recruiting information systems influence performance of commercial banks to a great extent. From the findings HRIS helps to maintains relationships with individuals who register in a talent warehouse, HRIS performs comprehensive reporting and tracking of applicants efficiently, HRIS helps eliminates unsuitable applicants early and focuses on promising candidates, HRIS helps to analyses each job position and its job title, HRIS supports development of recruiting plan, HRIS helps to identifies unfilled positions accurately, HRIS administers selection tests and rates job candidates appropriately, HRIS helps to recruit candidates

through e-recruiting, HRIS maintains skill inventory of all employee, HRIS leverages employee's talent in the right place at the right time and HRIS helps analyses employees in each position. These findings correspond with that of Kovach and Cathcart (2009) who asserts that data and information about applicants regarding current employees, whether for a transfer or promotion, or outside candidates for the first time position with the firm are collected and evaluated.

Conclusion

Recruiting information systems helps to maintain relationships, allows comprehensive reporting and tracking of applicants efficiently, eliminates unsuitable applicants early, analyses each job position and its title, development of recruiting plan, identifies unfilled positions accurately, administers selection tests and rates job candidates, helps to recruit candidates through e-recruiting, maintaining skill inventory of all employee, leverages employees talent and helps analyze employees in each position. The study concludes that reward management information systems influence performance of commercial banks in Kenya

Training and development information systems helps in administration of training programs, provides detailed training plan managers, eliminates skill gaps, reduces cost in the

organization, in selection of right persons to be trained, provides accurate analysis and provides training on the relevant needs. The study concludes that training and development information system influences performance of commercial banks.

Recommendations

The study recommends that the management of commercial banks should incorporate recruitment and selection sub systems to enable them hire right by eliminating unsuitable applicants and recruiting candidates through e-recruiting which helps costs that would have been incurred during the selection process. The study recommends that management of commercial banks should not conduct training based on the good will of the senior employee but based on the needs of the employees the study found that training programs provides detailed training plan managers and eliminates skill gaps.

Areas of Further Study

The study sought to establish the influence of human resource information systems on performance of commercial banks in Kenya. The study recommends that a study should be done on the challenges facing the implementation of human resource information systems among commercial banks in Kenya. The study further recommends that a study should be done on factors influencing adoption of human resource information systems among commercial banks in Kenya.

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