

**INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEMS ON
ORGANIZATION PERFORMANCE: A CASE OF UNITED STATES
INTERNATIONAL UNIVERSITY- AFRICA**

BY

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UNITED STATES INTERNATIONAL UNIVERSITY- AFRICA

FALL 2016

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ORGANIZATION PERFORMANCE: A CASE OF UNITED STATES
INTERNATIONAL UNIVERSITY- AFRICA**

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**A Research Project Report Submitted to the Chandaria School of Business in Partial
Fulfilment of the Requirement for the Degree of Masters in Business Administration
(MBA)**

UNITED STATES INTERNATIONAL UNIVERSITY- AFRICA

FALL 2016

DECLARATION

This research project is my original work and that it has not been submitted for any award in any university.

Signed:

Date:

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This research project is submitted with my approval as the University Supervisor.

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Date:

Stephen M. Nyambegera, PhD

Signed

Date.....

Dean, Chandaria School of Business

ABSTRACT

The general objective of this study was to investigate the influence of Human Resource Information Systems at United States International University - Africa; whereas the specific research objectives are to: determine the extent to which Employee Self Service influence organization performance, investigate how access to Human resource information Systems influence organization performance, and to determine how Management Self Service influence organization performance at USIU-A.

The study adopted descriptive research design and a stratified random sampling with the target population being the academic and non-academic staff of USIU- Africa. The sample size was 129. The study used primary data which was largely quantitative, collected by use of questionnaires which were numbered, edited and coded. Descriptive and inferential analysis was conducted in data analysis. Descriptive analysis involved the use of frequency in their absolute and relative forms percentage, Mean and Standard Deviations was also used as measures of central tendencies and dispersion respectively. Inferential statistics was carried out using correlation and multiple regression models. Correlation and regression analysis was done on the data collected to determine the relationship between the dependent and independent variables. The regression models tested for strength and predictor variables. Results indicate that HRIS has significantly improved both employees' and managements' access to human resource data across the institution. It was also established that significant improvements in employee self-support systems-ESS- have been noted in the institution, attributable to HRIS.

The study concludes that both manager self-service systems and employee self-support systems have an influence and are able to predict the performance of the University but not, access to human resource data. The study established significant positive correlations between organization performance and the scores for access to human resource data, manager self-service systems and employee self-support systems.

The study recommends that USIU-Africa should invest in ESS to experience increased productivity. Further, top management should support MSS in improving organizations performance, engage employee in the analysis, design, construction and development of the system and also train employees on how to use HRIS to improve their performance.

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DEDICATION

I dedicate this research study to my dear grandparents the late Jeckoniah Akicho, Susan Akicho and J,J, Mumbo Bula.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

In the present context of globalization, employing organizations and their environments have become increasingly complex. Managers in these organizations face growing difficulties in coping with workforces that may be spread across various countries, cultures and political systems. Given such trends, traditional or manual human resource systems are absolutely inadequate (Beckers and Bsai, 2002).

Despite the increase in the number of work force, competitiveness is now if not ever the most important aspect of an organization if they are to surpass the extremely turbulent business environment and huge increase in competitors from across the globe. In order for profit maximization, which is the primary reason for the existence of any organization, to be met the existence of an information base that clearly demonstrated the traits of the employed staff is paramount. Effective human resource decisions can only be met if there is adequate and concrete data on the staff and this also translates to when making periodic performance assessments. There is need for an online information base where reporting and storage of the data can be done. The manual ones can be used but for easier, quicker and more reliable access then the online supersedes the manual.

With increase in complex governmental requirements, the organization is bound to rely more on the HR functions of for operational and reporting purposes. This shift calls for the development of an information base that will support the processes and practices of HRD. Such an information base is what is called human resource information systems (HRIS) (Lederer, 1984).HRM, now a modern function of management, surfaced in the mid twenty-first century causing the expansion of the scope of HR from administrating staff to establishing and putting in place high performance work systems (Thiteet *al.*, 2011). The concept of profit maximization was the child brain of configuring HRM with organizational strategy and information systems (Ball, 2011; Ulrich, 1997; Storey, 1995).

HRIS therefore is a tool used to collect, analyze, store, distribute and retrieve the needed information about a firm's human resources (Tannebaum, 2011). HRIS helps in improving administrative efficiency via faster information processing, increased accuracy, lower HR

costs, improved HR productivity and employee communication. It also facilitates strategic value generation by aiding with the implementing and designing of internally consistent policies and practices that ensure objectives are met by the human capital (Boateng, 2007 and Wiblen *et al.*, 2010). HRIS integrates three fundamental corporate functions: strategic, operational and human resource planning. This means capabilities for succession planning, position control, management development, career and human resource planning are some of the functions that HRIS helps with.

Martinsons (1994) carried out a study comparing the degree and sophistication in the use of IT in HRM between Canada and Hong Kong. The use of HRIS was not as widespread in Hong Kong as it was in Canada. However IT for HRM was widely applied in Hong Kong than it was in Canada. More recently according to studies done by Ball (2011) indicated that small organizations did not use HRIS and that they are less likely to do so.

Studies carried out in Singapore examining the determinants of adoption of HRIS and the degree to which HR strategic focus is enabled by HRIS in Singapore shows that the adoption in the public sector depends on environmental, organizational and technological context factors. In the last decade (1995-2005), the Malaysian government has made attempts and put down structures to help the country move towards a knowledge based country. Among the structures put in place, HRIS is one of them. Since the implementation is relatively new, there is limited understanding of what constitutes a successful HRIS in a developing country like Malaysia let alone Kenya.

A good HRIS should use resources efficiently, be compatible with the organization goals, be accessible to all interested and eligible members. It should also maintain speed and provide privacy, integrity and security to the data stored in the system. However its functions are: selection and placement; performance management; training and education; and career planning and development.

On the other hand information technology has been considered a potential tool that managers can use, both generally, and in human resource functions in particular, to increase the capabilities of the organization (Tansley and Watson, 2012). A study done in India by Kundu and Kadian, (2012) on 544 respondents shows that people considered “technical and strategic management”, “performance and reward management” as the far most important

needs for HRIS implementation. However the frequently used functions were employee record and payroll. Service companies were found to be using more of the HRIS than manufacturing companies.

Recent study done by WHO in Pakistan revealed that, the health sector of Pakistan was in dire need of better performance and one of the factors that would contribute to the improvement of the health sector was adopting a functional HRIS to keep tabs on the staff and make proper decisions especially now that the health services were devolved to the provinces and proper record keeping was of paramount importance. The results of the study showed a very bleak picture of HRIS adoption and this was mainly influenced by the lack of IT facilities and skilled manpower, negligible budget, zero maintenance and lack of support and monitoring mechanisms. However this is typical of almost all third world countries. The study further concluded that, a well-established HRIS would facilitate data processing, report generation, transmission and feedback and this will aid in the achievement of Pakistan's Millennium Development Goals.

HRIS is far more developed in the western countries than in the Asian and African countries due to the difference in IT adoption and development in those continents. More and more small organizations have already adopted functional HRIS in the West; in third world countries the big organizations are still struggling with how to best implement the system.

Globalization is good for organizations since it ensures that only the best survives while the weak are wiped out through competition. However globalization as well as knowledge management comes with its challenges that organizations must address issues such as talent management; expatriates have become more of a common phenomenon yet in some parts of the world like in Africa there seems to be a great challenge. Since employees move from one continent to the other it is paramount that information about the expatriates is transferred, yet the technology advancement in the west and Africa is not the same thus the need for a unified HRIS arises.

In Africa, South Africa is one of the top countries in HRM while it ranks poorly world-wide. Okinyi,(2013) notes that HRIS has not been widely adopted by Kenyan organizations and the area is not well studied. Institutions such as banks, recruitment and auditing companies such as Kenya Commercial Bank and Deloitte have employed oracle based HRIS and

balance score card to keep tabs of the changing needs of organization and work force. It has proven to be useful in managing the large numbers of employee records in the bank.

Cedar, (2010) States that there is potential in managing human resource functions and those managing it have not ignored that fact and over the years the use of human resource information systems (HRIS) has spread far and wide. Human Resource executives now seek the help of the technology to provide reliable information which they will use to make decisions that will lead to the success of the organization as a whole(Wilcox, 2007).

Lepak, Liao, Chung, and Harden , (2006) Observes that HR can meet the challenge of simultaneously becoming strategic, flexible, cost efficient and customer-oriented by leveraging information technology. They further expound that HRIS has the capabilities of reducing costs while increasing productivity thus enabling efficient flow of activities. It also increases the speed time, improves decision making and enhancing customer service all at the same time. It is the need for cost reduction, higher quality services demanded by customers and cultural change that drives organizations towards information technology driven solutions. This is evidenced by the rapid application of electronic human resource management in organizations as a product of the turbulent change witnessed in information communication and technology.

According to CedarCrestone, (2010), surveys of human resource consultants suggest that both the number of organizations adopting HRIS and the depth of applications within the organizations are continually increasing. The forecast made by many experts that the personal computer would become a central tool for all human resource professionals has come true. Like any other system HRIS comes with its critiques too, they argue that the privacy of employee information has been at risk since organizations started using the software. This has become a major issue in the company with the rise of identity theft; employees now want to know if their information is safe enough. Employee privacy is a right, whether electronic or paper. Establishing security and end-user privilege calls for a balance of incorporating HR policy, system knowledge and day-to-day operations (O'Connell, 2009).

However this issue has already been tackled though not 100% since we are still dealing with the issue of hacking, organizations can put measures such as getting relevant information to the employment and making sure that password protection are used. Other critiques also argue that evaluation of the system has almost proven impossible. If you cannot measure, you cannot manage therefore whether or not the HR management system has performed up to its expectations and if the system is being used to its full advantage should be evaluated (Byars and Rue, 2004).

Hagood and Friedman, (2002), states that one of the most significant challenges faced by human resource executives today is measuring the performance of their human resources information system (HRIS) against the supposed value-added contribution of the HRIS to accomplishing the organization's mission. He further argues that implementing an HRIS program may seem a necessary step for an organization, but unless it is implemented effectively, all employees are on-board and they know what, when and how to use the system, it will not help increase efficiency and instead may hinder it.

Personnel information has always been managed. Traditionally, this was done by scribbling the information on a 3x5 note card, though the information was limited to employee names, addresses and some employment history. It is said that this period set the stage for massive changes to occur in the 1960's and 1970's. Though the changes in this period in terms HRIS were not that significant, we must admit that employee files became somewhat more complex (Kavanagh, Gueutal, and Tannenbaum, 2008)

The advent of a wide spread use of mainframe computers in Kenya is corresponded with this regulatory increase and provided a technological solution to the increased analytical and record-keeping requirements imposed by growing regulation of employment and a host of new reporting requirements for example OSHA, EEO and affirmative action. The HRD became one of the most important users of the costly computing systems, often edging other functional areas for computer access. Although HRIS systems were computerized and grew extensively in size and scope, they remained -for the most part- simple record keeping systems (Kavanagh, Gueutal, and Tannenbaum, 2008).

According to Richard, (2009), organization performance comprises the actual output or results of an organization as measured against outputs; goals and objectives. It is an analysis of a company's performance as compared to goals and objectives. Gomez-Mejia, Berrone, and Santos, (2010), provide a detailed distinction between operational and organizational performance. Operational performance constitutes all non - financial outcomes of the organization while organizational performance is limited to economic outcomes which are divided into four main dimensions: profitability, liquidity, growth and stock market performance.

Organizations do not operate in a vacuum; the environment surrounding them is turbulent thus resulting into increased uncertainty surrounding their mission. Organizational performance initiative was designed to help organizations to respond effectively to such changes. The initiative focuses on helping organizations in all sectors of the economy, government, charities and business. It goes ahead to be useful in learning institutions and standard setting agencies to improve their policies in regard to preparedness of future changes (Gomez-Mejia, Berrone, and Santos, 2010).

United States International University (USIU) was founded on 18th September, 1969 and registered under the Companies Act (Cap 486) in the same year. The university prides itself with dual accreditation. It received its accreditation from the commission for higher education CHE in Kenya in 1999 and Western Association of Schools and Colleges (WASC) in the United States in 2008. Since its establishment as a university in 1970, USIU has had five Vice Chancellors at its helm.

1.2 Statement of the Problem

The greatest amount of time and costs of human resource management are created at the administrative level. Chief Executive Officers together with their respective business unit managers need to review their human resource strategies if they hope to create and retain a viable workforce; one that will increase the likelihood of business success (Nishii and Wight, 2008). There are costs associated with implementation of HRIS such as training costs, acquiring of personal computers and enabling internet connection in the whole organization. For HRIS to be more effective and be fully utilized, employees need to have access to

internet connection and personal computers at home too so as to capitalize on the concept of flexi time (Kim and Wright , 2010).

Change is more often than not received negatively, as humans we do not like what takes away our norms. The concept of HRIS fails to work not only because organizations lack the required material but because the employees are not motivated to explore the advantages of HRIS. If only organizations would present the software as a package of good tidings and show how easier it makes the works of employees and how they are in charge of their own data then perhaps more organizations would have better performing HRIS.

Hayton, (2006) Explains that managers should see how value and cost savings can be maximized through the adoption of the system. The HRD should spend, as much time as it spends on training employees, on change and software implementation. Moreover they should assess each and every employee's level of skills and acceptance of technology.

One of the ways through which change resistance can be handled is through involving employees in the development of the system, this way they feel like they own the system and are bound to accept the outcome rather than when a new system is shoved down their throats. Without well trained and prepared labor force, businesses lose the ability to compete both nationally and internationally, resulting in decreased economic success (Bussler and Davis, 2012). The constant pressure for speed, innovation and change is brought about by rapidly advancing technology. Employees must therefore possess a wide variety of technical and interpersonal workplace skills and competencies that allow them to work with advanced technologies and function optimally in today's high performing organizations.

Studies on HRIS have mostly been conducted in the western countries. Despite the fact that most African countries and some Asian countries have adopted IT systems in their daily transactions there is still very limited understanding as to what determines the success of HRIS in African countries like Kenya and more so in knowledge impacting institutions like universities. The direction of HRIS in developed countries confirms HRIS as a strategic partner whereas in developing economies its nature and roles remain relatively unexplored hence the need for this study to try and fill the gaps.

USIU is an ideal place to carry out the research because it handles a lot of administrative work on its high staff population and recommendations will be given at the end of the research which will help in improving the institution and hence achieve a sustainable competitive advantage.

1.3 Purpose of the Study

The purpose of the study was to determine the influence of Human Resource Information Systems on organization performance at United States International University-Africa

1.4 Research Objectives

1.4.1 To determine the extent to which accessibility to human resource information systems influence organization performance at USIU

1.4.2 To determine the extent to which Employee Self Service ESS systems organization performance USIU.

1.4.3 To examine the extent to which Manager Self Service MSS systems influence organization performance at USIU.

1.5 Significance of the Study

1.5.1 Human Resource Managers

The findings of this study will be important to various groups both private and public institutions. It will enlighten human resource managers on the importance of using human resource information systems across the organization

1.5.2 University Staff

The study will also be useful to the university staff at all levels. The information will enable them understand the importance of HRIS and how they help in cost cutting and improving efficiency at work operations.

1.5.3 Government

The government will also benefit by adding new knowledge and will support other organizations willing to adopt this system through provision of funds and expertise.

1.6 Scope of the Study

The study will cover USIU, which is an institute of higher learning. USIU is a private university. The population will consist of the university's teaching and non-teaching staff. The data will be collected within a period of three months during the Fall semester.

1.7 Definition of Terms

1.7.1 HRIS

Human Resource Information System (HRIS) is an online solution or system that comprises of databases, computer applications, hardware and software necessary to collect/record, store, manage, deliver, present and manipulate human resource data (Hellen and Nicholas, 1983).

1.7.2 ESS

Employee Self Service application is a web-based service that allows employees to access their personal information related to their employment (Wayne, 1997).

1.7.3 MSS

Manager Self Service application is a tool that allows managers and supervisors to handle some HR transactions and receive HR reports in real time (Gardner, 2003).

1.7.4 Data Mining

Is the process of analyzing data from different perspectives and summarizing it into useful information that can be used to cut costs, increase revenue or both (Charu, 2015).

1.7.5 Analytical Tools

These enhance the ability to slice and dice information available in the database to generate specific information and analyze information across multiple dimensions which will facilitate efficient and effective decision making (Ein-Dor, Philip and Carl, 1985).

1.7.6 Performance

The accomplishment of a given task measured against preset known standards of accuracy, cost and speed (Sahu, 2007).

1.8 Chapter Summary

Change is more often than not received negatively, as humans we do not like what takes away our norms. The concept of HRIS fails to work not only because organizations lack the required material but because the employees are not motivated to explore the advantages of HRIS

The advent of a wide spread use of main-frame computers in Kenya is corresponded with this regulatory increase and provides a technological solution to the increased analytical and record-keeping requirements imposed by growing regulation of employment and a host of new reporting requirements.

This project is organized into five chapters. Chapter one comprises of the background of the study, statement of the problem, purpose of the study, research questions, significance and scope of the study. Chapter two will comprise of literature review, Chapter three will comprise of research methodology that will be used, research design, target population, sampling design, data collection and analysis.

In chapter four the data will be analyzed and interpreted. Chapter five will dwell on the summary, conclusion and recommendations and areas for further research as per the findings of chapter four.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents a literature review of the key concepts of the study theories that form the basis of this study.

2.2 Access to HR information and organization performance

Normalini, Kassim, Ramayah, Sherah and Kurnia, (2012), used a research model based on a questionnaire gleaned from the literature which was used to collect data through a probability sampling, stratified random sampling technique, whereby those companies in Penang, Malaysia which used HRIS were targeted. The findings suggest that information technology appears to serve as an empowering function for HR professionals, providing the medium in which HR professionals can provide increased value to their work.

The paper helped organizations in the implementation or deployment of new information technology products, systems. The special function of HRIS was to gather, collect and help in the analysis of the data necessary for the human resource department to do its job properly (Anthony *et al.*, 2002).

The HRIS could improve administrative efficiency through faster information processing, improved employee communications, greater information accuracy, lower HR costs and productivity improvements (Dery *et al* 2009; Wilben *et al.*, 2010). HRIS can facilitate strategic value generation by helping design and implement internally consistent policies and practices that ensure that human assets contribute to achieving business' objectives (Boateng, 2007).

As HRIS is relatively new, selecting a site with respondents having access to this system is important. Primary participants for Normalini's *et al* study were HR professionals working in companies. Data was obtained about HRIS usage from the HR executives and many other respondents selected in various organizations to curb concerns with single information bias. To obtain the data, 50 individuals were selected to participate with questionnaires being mailed to them.

To ensure the eligibility of the study, all respondents were required to confirm that they knew what HRIS was before getting into the questionnaire. The population comprised of HR executives and professionals working around Penang, Malaysia. The geographic location for the study was Bayan Lepas Free Industrial Zone, Prai Industrial Zone and services organizations in Penang.

According to the society of Human Resource Management Journal (2010), access to HR data, one of the most significant in HR practice has been democratization of HR data- the rapid expansion of access to such data by groups inside and outside the organization. Up to recently only the HR staff worked with personnel data. Capelli (2009) asserts that today employees, managers, health insurers, workers' compensation carriers, senior executives, job application and regulatory agencies have access. However, it should be noted that for HRIS to exist there has to be existence of computers. HRIS is a computer-based system without which we cannot talk about HRIS. The existence and availability of well trained and skilled workers is paramount for the system to be efficient and effective. However, with all these different types of users, so are their needs different from each other. For example, executives use summary data from the system to aid in strategic decision making, and applicants draw initial impression of the organization from online recruiting.

Breaugh (2009), notes that online recruitment has become one of the primary methods employed by HR departments to garner potential candidate for available positions within an organization. Marler and Duebohn (2008), assert that the significant cost incurred in maintaining an organized recruitment effort, cross-posting within and across general or industrial-specific jobs boards and maintaining a competitive exposure of availabilities has given rise to the development of a dedicated applicant tracking system.

It is so much so that in the last five years, online recruitment has become an essential HR practice all over the world, the level of engagement of online activities differ from continent to continent fact is that, somehow the HR practitioners are geared towards adapting to the changes in the business world and are moving towards the direction of online recruitment which is much cheaper than board advertisements as they used to do it a few decades back.

Research shows that US has the highest percentage with 92% of companies recruiting via social media like Facebook, Twitter and LinkedIn. Seven in ten companies have successfully hired this way. However, this is not the case in one of the most developed countries in Africa, South Africa. Advertisement is still used as a basic way to advertise vacancies and there systems are not as sophisticated as those of the US. It is noted that only half of the companies have actually moved to the online platform. Social recruitment is nearly unheard of. A major factor that does affect online and social recruitment is the lack of smart phones owners in Africa, nearly 85% of the population do not have smart phones and going to the cyber café to check up on or update your status on the social media does not seem realistic. Furthermore, in most parts of Africa, especially rural, do not have access power and the necessary infrastructure for cyber cafes.

According to Jackson *et al.*, (2009), low level HRIS barely allow employees access information to general information, company policies, procedures and events, through the intranet. However more sophisticated HRIS allows access to data over time and employees can use the information from the system to generate their own personal goals and the organization can use the same information for strategy formation and succession planning.

Dow an American Multinational chemical company has adopted HRIS which allows world-wide coordination among its employees. Both managers and employees have access to relevant information. The company policies and procedures, individual employees' goals and departmental goals are available in the system such that at any one point every individual employee knows what is expected of him or her, the goals to be met for a certain quarter and how they have performed previously making tracking of one's performance and even changing of departments easier. With that kind of information available to the relevant persons, it is safe to deduce that efficiency in such companies will be higher than the other companies which have not yet adopted HRIS.

Like any other IT system, HRIS requires capital and technical resources to design and implement and the benefits that accrue to adopting and implementing this system is more than the cost incurred of implementation. It is for a fact that HRIS is one of the components that create a competitive advantage for firms through: improved accuracy, timely and faster

access to information, costs savings that arise from the timeliness of the delivery of information, customer satisfaction and increased innovation and efficiency. HRIS, which does away with work duplication and makes sure that there is flow and streamlines the processes, allow human resources staff to spend less time on administrative tasks and more time on strategic decision making and planning. As a result of the reallocation of time, the staff's efficiency and departmental response time is increased tremendously. By so doing, the organization's knowledge management is improved which in turn translates to increased competitive advantage in the marketplace, stakeholder satisfaction and efficiency (Targowski and Deshpande, 2001; Ngai and Wat, 2006).

Bottom line is HRIS data have provided a new tool for managerial decision-making both in human resources arena and organizations-at-large. The management can now easily make conclusive work-related decisions about an individual employee or regarding the corporate strategy (Kovach, Hughes, and Fagan, 2002).

Maier *et al.*, (2013); Duelebohn and Johnson (2013) recognize the relationship between HRIS implementation and employee satisfaction and turnover rate. HRIS plays an important role in selection, application and employment of human resource analytics and contributes to strategic advancements of organizations.

2.3 Employee Self Service and Organizational Performance

HRIS became a ubiquitous part of business practices and corporate culture when HRIS proved that they could improve the management of an organization's human capital. HRIS provides an administrative advantage to organizations which often translates to a competitive advantage.

Efficiency can be defined simply as the relationship between the results achieved vis a vis the amount of resources used. One of the factors that lead towards developing an efficient organization is its effective human resource department since it is responsible for employee recruitment, training, promoting, terminating, record keeping, and meeting legal and governmental standards and regulations. The human resources stakeholders rely heavily on information provided by HRIS to meet its objectives (Kovach and Cathcart, 1999; Targowski

and Deshpande,2001) HRIS first came into light after World War II. Before that basic employee record keeping based on the address and names were the only information that one could obtain from the personnel staff. Organizations, between 1945 and 1960, began to recognize the link between employees and firm performance as a result; they began to develop formal processes for employee selection and development. Between the years of 1960 to 1980, organizations started integrating human resources into the overall organization strategy and the transition from paper to computers record-keeping was visible in HRI.

According to Helen and Nicholas (1983), HRIS in this period was believed to be developing at a modest level with its main utility being administrative work such as recruitment, planning and keeping records related to the job and individual. The movement of HRIS being used merely as an administrative tool to a strategic tool and later as a means of complying with the regulations was spearheaded by the works of (DeSanctis, 1986).

The subsequent years saw HRIS move towards micro issues such as information security and privacy rights, ethics and interests of shareholders. In the following decade legal issues regarding the adoption of HRIS were discussed by various authors. Tannenbaum (1990), expounded the field of HRIS to “user attributes and skills such as computer knowledge, personnel system knowledge, focus, degree of access required and expectations.” Organizations, from 1980 to today, have come to heavily rely on HRIS to generate information used in managerial decision making that optimize the contribution and potential of a firm's human capital (Hendrickson, 2003). In 1998, HRIS was used by close to 60% 500 Fortune companies to advance daily human resource management operations. The reason for its growth in popularity is because HRIS has been found to be useful and applicable to administrative, strategic and business decision making functions of any organization (Ngai and Wat, 2006; Wickramaratna, 2011).

HRIS in contemporary business organizations are increasingly characterized as employee self-service (ESS) systems. ESS systems allow employees to have access to and update their records without the assistance of human resources personnel. HRIS have moved from client server architecture to a web-based environment. Many firms have added interactive voice response (IVR) to their HRIS to enable employees to easily update their human resource

information. Examples of information that can be updated on web-based or interactive voice response HRIS are address information, retirement information, health plan information, life-events reporting, life insurance information, and 401(K) information.

Different levels of employees use HRIS for different purposes, where HR professionals use it for: administrative work, regulatory reporting, payroll analysis, skill development and inventory amongst other functions of the HR department, a second category of users (managers) use it to obtain information relevant to their functional departments. The end – users use it for administrative alternatives (Wayne, 1997).

HRIS can often be accessed from multiple locations within an organization including employee offices, factory floor portals, and email kiosks. HRIS portals and kiosks located in public and centrally located spots throughout the organization, a growing trend in business organizations, enable all employees to complete human resources transactions regardless of their work hours, work location, and profession (Kovach, Hughes, and Fagan, 2002). In a world where globalization is intensifying with every minute, the pressure is on the organizations to better manage the talent and knowledge in their possession. HRIS makes it easy for such information to be stored and retrieved at any point in time, anywhere thus increasing the accuracy of decision making and boosts organizational competitiveness and efficiency.

According to Beulen (2009), HRIS is confirmed to be an influencing factor in the rate of employee retention in organizations. When the rate of turnover is low it means that less money and time will be spent on recruiting and training of new employees thus increasing the profit margins of a company making the company more efficient than its competitors.

CedarCrestone (2010) in a survey conducted indicates that ESS websites, often enabled through the HR portal, allow many HR questions and transaction to be handled directly by employees. In their survey they claim that a well-designed ESS allow employees to make informed choices and to become self-reliant for many HR services. It is also said that due to the accessibility of information that they possess, employees' response to queries is increased ten-fold and they are can provide more accurate information, this translates to

increased efficiency. The most important of all the facets of HRIS is accuracy, and when combined with timeliness tremendously increases reporting capacity. Control is therefore of paramount interest to ensure that the correct information is received by the relevant parties and that security as well as integrity is maintained at all times where appropriate (Hosie, 1995). The most important of all these is the fact that the employees themselves can sign up for professional development courses and trainings and be able to monitor their training and evaluate themselves based on value addition they bring to the company in terms of knowledge acquisition and storage. They can also view information associated with their position at the university like salary, job title and supervisor (Gherson and Jackson, 2009; Kavanagh and Johnson, 2015).

Organizations are bound to grow and one of the disadvantages that HRIS systems have is that they do not grow with the organization. As study conducted in Saudi Arabia showed that employees were not pleased every time they had to attend trainings on how to work with the new programs when they were upgraded. This posed as a good reason why the Saudi market had not yet adopted HRIS despite their advancement in technology. One of the issues was that if the costs of implementation and time taken to train employees per up-grade were summed up then HRIS was not a worthy investment. This problem is solved by a slight modification of the system to meet the growth and changes in the company. Also when purchasing a system, organizations should look at their needs at that moment together with their needs a few years down the line (Beaman *et al.*, 2000).

2.4 Manager Self Service and Organization Performance

Study conducted by Sadiq (2013), aimed at elaborating the extent to which HRIS was being used in increasing the administrative and strategic functions of the HR department amongst various private corporations operating in Lahore, Pakistan.

The results showed that HRIS is positively used as a tool to achieve greater administrative efficiency by adding value in the department. However, all of its benefits and new technology has also created opportunities for higher levels of stress for younger and older workers alike, unethical temptations, behaviors and opportunities for better leadership practices (Mujtaba, Afza and Habib, 2011).

The study of Krsihnan and Singh (2006) explored the issues and barriers faced by nine Indian organizations in implementing and managing HRIS. The main HRIS problems were lack of knowledge of HR department about HRIS and lack of importance given to HR department in these organizations. Cooperation is required across various functions and divisions of the organization for proper implementation of HRIS.

Systems theory was proposed by Ludwig Von Bertanffy, the research explains real systems and how they are open to and interact with, their environments and that they can acquire qualitatively new properties emergence resulting in continual improvement. Systems theory focuses on the management of and relations with other parts that form the system as a whole. It therefore focuses on the system as a whole rather than its parts.

The human resource office cannot function independently; it has to be interconnected with all the departments involved. Thus, there is need for an integrated system to be put in place to facilitate the work within the organization which helps with putting the company on a competitive edge with its competitors. People cannot work alone and work needs to be done efficiently to minimize organizations costs and hence improve performance. (Leptak *et al.*, 2006).

This focuses on internal factors and exists where the internal resources are the principal factor for a sustainable competitive advantage. In effect, the value brought by human resource is the core of this approach where flexibility is optimized in order to reduce costs and increase efficiency. Human resource, by adding value, uniqueness and the most effective way to use resources, tend to increase the efficiency of a company in comparison to another. The first category are resources that include all the of the asset, capability, organization process, enterprise character, information and knowledge that an enterprise can be able to control, give the ruling, allocate the efficiency improving or achieve efficiency strategy (Barney 2007).

Liang and You (2010) also concur with Barney (2007) in his article, that resource based theories contend that physical assets in themselves can serve as sources of efficiency only if they outperform equivalent asset of competitors. The dependent construct is firm performance that may include management and financial performance. Technology context

such as IT investment, IS adoption, and IT infrastructure as resources, others also included intangible resources such as management skill, staff training and knowledge management.

A more comprehensive approach proposed by Zhu, Kraemer *et al.*, (2007) adopted the TOE (Technology-Organization-Environment) framework in firm performance research. The TOE framework identifies technology, organization, and environment contexts to be the major aspects that influence the process of adopting and implementation of technological innovation. Firms compete based on unique resources that are valuable, rare and difficult to imitate. When a firm is unique in its operations with technology, there is tendency to improve work efficiency.

According to Ascentis (2007) Manager Self-service (MSS) applications are tools that can be accessed via a portal. These tools allow supervisors and managers to handle various HR transactions online and receive HR reports. With time, organizations can choose the amount and complexity of HR tasks to be delegated to managers via MSS, including allowing managers to view information and create reports about the employees working under them without having to rely on HR. These systems make organizations perform better and run efficiently. Managers are now more involved in HR work which was in the first place meant to be theirs, for example pay rise, promotion, approving leave requests and changing an employee's classification. Who to better do all these than the manager who frequently interacts with the members of his/her department and knows the strong holds and weaknesses of every individual? With transparency, the managers are the best fit for making all the above decisions than the HR department is. Managers are also given the allowance of handling HR functions such as performance management, succession planning and on boarding. As should be noted all the above roles were traditionally HR duties but with tie and experience it has been noted that the managers are best fit to deal with such activities effectively than the HR thus with ESS, when managers handle transactions, HR budgets will see savings (Kolb and Aiello, 1995).

Shikha and Karishma, (2012) explain that the training module provides a system for organizations to administer and track employee training and development efforts. The system, normally called a learning management system (LMS) if a standalone product, allows HR to track education, qualifications and skills of the employees as well as outlining

what courses, books, convertible disks, web based learning or materials are available to develop various skills. This module defines training areas and subjects, training institutions, resource persons, types of training, examinations, scheduling training programs etc. training and development provides features to handle different types of training program applications, track attendance, evaluation and training cost.

Kavanagh and Johnson, (2011) explain that hiring and retaining the best talent is critical to any firm. Data mining sometimes called data or knowledge discovery is the process of analyzing data from different perspectives and summarizing it into useful information-information that can be used to increase revenue, cut costs, or both. Data mining software is one of the analytical tools for analyzing data.

It allows managers to analyze data from many different dimensions, categorize it and summarize the relationships identified. In Cedar Crestone HR systems Survey (2010), Microsoft Company was able to develop a plan to target certain universities and companies for future hiring. Firms also use data mining to reduce turnover. Using data from the past several years, along with statistical models, the company was able to predict which highly skilled employees have the greatest risk of leaving. Employees can therefore be targeted for retention programs and incentives.

The independent variables are employee self-service, access to HR data, manger self-service while the dependent variable is organization performance. The need for performance management systems (PMS) which is a facet of HRIS has increased over the last years due to its ability to improve performance and overall quality of organizations (Burgees *et al.*, 2007; Cuthbertson and Piotrowicz, 2011; Waal and Counet, 2009).

a) Employee Self Service and Organization performance

Benefits Administration: Policies and procedures available on the intranet which is part of administration data if made available to employees in the organization has the ability to prevent redundancy and eradicate ignorance therefore improving productivity and efficiency.

Personal data: Personal information such as an employee's previous records on obtaining and meeting their goals is very relevant to the both the employee and the manager and should be made available to both. When such

information is readily available, self-evaluation is made easier and issues such as favoritism which is a common form of politics used in organizations is done away with and a sense of responsibility created thus pushing one to a greater need for performance.

Dependent data: Information based on the clientele is paramount for employees to know so that efficiency can be improved.

b) Access to HR Data

Recruiting/job openings: through HRIS employees are able to know which posts are vacant and therefore can apply for any post as they so wish. They can even change jobs or departments accordingly. This level of transparency fosters trust and hard work amongst employees' thereby increasing efficiency and productivity.

Bulletin boards: availability of information ensures that everyone knows what is expected of him or her. New information is communicated through the bulletins. An informed employee is the first step towards success.

Payroll information: this helps in curtailing issues regarding underpayment, discrimination regarding pay amongst other. A harmonious environment fosters success in an organization.

c) Manager Self Service

Analytics module: analysis done on the employee is available both to the manager and the employee him/herself therefore both parties are aware of the situation at hand and the necessary measures can be undertaken.

Training module: staying relevant in the job market is as important as purchasing the necessary equipment. Relevant means that redundancy is cut off and efficiency increased.

Data mining: sourcing information on the employees enables decisions on promotion, recruitment to be more relevant and accurate therefore cutting down on training costs as the right people for the job are placed at the right time.

2.5 Chapter Summary

Change is more often than not received negatively, as humans we do not like what takes away our norms. The concept of HRIS fails to work not only because organizations lack the required material but because the employees are not motivated to explore the advantages of HRIS

The advent of a wide spread use of a mainframe computers in Kenya is corresponded with this regulatory increase and provides a technological solution to the increased analytical and record-keeping requirements imposed by growing regulation of employment and a host of new reporting requirements.

One of the factors that lead towards developing an efficient company is an effective human resource department since it is responsible for employee recruitment, training, promoting, terminating, record keeping, and meeting legal and governmental standards and regulations. The human resources stakeholders rely heavily on information provided by HRIS fulfill to meet its objectives

The relationship between HRIS implementation and employee satisfaction and turnover rate. HRIS plays an important role in selection, application and employment of human resource analytics and contributes to strategic advancements of organizations. The efficiency and effectiveness of HRIS enables an organization to profile its staff for example: their strengths and weaknesses. This way the organization knows its personnel base and can match its staff with its goals, mission and vision. Such information is also useful in that they can be able to make appropriate decisions on recruitment, training and promotion, this way the right people are placed in the right place at the right time. Through MSS, Managers are now more involved in HR work which was in the first place meant to be theirs, for example pay rise, promotion, approving leave requests and changing an employee's classification. Who to better do all these than the manager who frequently interacts with the members of his/her department and knows the strong holds and weaknesses of every individual? With transparency, the managers are the best fit for making all the above decisions than the HR department is.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology of the study. The research was aimed at explaining the methods and tools employed in collecting and presenting data for analysis in order to enhance proper and maximum comprehension of the information related to the subject under study.

3.2 Research design

Research design can be termed as “glue” to the research. It shows the structure of the research and how all the parts of the research work together to meet the research objectives. It is the conceptual structure within which research is carried and the blueprint for the collection, measurement and analysis of data (Kothari, 2003; Orodho, 2003).

More often than not descriptive research design is used to describe the current state of affairs. However, according to Kerlinger, (1969) it is not only restricted to finding facts but also can be used to formulate principles of knowledge and solutions to various problems. Orodho and Kombo, (2002) goes ahead to further explain descriptive research design as a tool that can be used to collect information regarding people’s opinions, attitudes on a variety of social issues. The purpose of using a descriptive research was to describe the characteristics of the variables and at the same time investigate the cause and effect relationship between variables. This design allowed the collection of quantitative data from a sizeable population in an economical way (Mugenda and Mugenda, 2003 ; Sauders, Lewis, and Thornhill, 2009).

3.3 Population and Sampling Design

3.3.1 Target Population

The target population of the study was teaching and the non-teaching staff at different levels of the organization hierarchy in USIU. Cooper (2003) defines the target population as the list of all the elements from which the sample is actually drawn.

3.3.2 Sampling Design

3.3.2.1 Sample Frame

Leary, 2014 defines sampling as the process of selecting a certain number of participants by researchers from a population of interest in order to conduct a study. Sampling frame is therefore related to the population to be studied since it is a list of all the elements from which the sample is to be chosen Cooper and Emory (1995). The sampling frame for this study was the total number of USIU staff which added up to 430.

3.3.2.2 Sample Technique

The researcher used stratified random sampling method where samples were selected randomly from different strata of the population used in the study. This was suitable in the study as it contributed much to the representative sample. Sekran and Bougie (2010), explain that stratified random sampling methods give better estimate of the whole population and hence the results are more reliable and the information is detailed.

3.3.2.3 Sampling Size

A sample is the number of elements that are to be studied and drawn from a given and relevant population. A very large sample size often leads to time and money wastage as more money and time are needed to conduct the study as compared to a small sample. However, an extremely small sample on the other hand does not truly reflect the position of the entire population and coming up with conclusions based on small samples more often than not lead to reflection of false results. Moreover a good sample depends on the following factors: the margin of error the researcher is willing to accept, the level of confidence desired and the variability of the population being studied. According to Mugenda and Mugenda (2003), to the very least 30 percent is representative of the sample, this study was based on 30% of the entire USIU staff population of 430 which is 129 as calculated in table 3.1

Table 3.1 Sample Size Distribution

| Section no. | Category | Total population | Sample Size percentage | Actual Sample Size |
|--------------------|-----------------------------|-------------------------|-------------------------------|---------------------------|
| 1 | Top-level management | 10 | 30% | 3 |
| 2 | Mid-level management | 100 | 30% | 30 |
| 3 | Faculty | 150 | 30% | 45 |
| 4 | Staff | 170 | 30% | 51 |
| Total | | 343 | 30% | 129 |

Source (USIU-Africa HR Department, 2016)

3.4 Data Collection Methods

The researcher used primary data. The researcher collected information of the study through a carefully designed questionnaire that used a five level Likert scale. Through these questions the researcher established whether the variables of the study had a direct relationship with organization performance. The researcher used structured questionnaire so as to get in depth information on the study conducted and to increase the reliability of the information collected.

3.4.1 Tests for Validity and Reliability.

3.4.1.1 Validity of Instruments.

Content validity was done to ascertain clarity and simplicity. The researcher pilot tested ten selected respondents who were selected from the target population. Whilst testing validity with experienced researchers is crucial, it is also important to pretest instruments on potential respondents, hence a pre-test was done on ten selected respondents to firm up the questionnaires before the main survey. The respondents in the pretest were included in the final sample and their feedback was used to improve the questionnaires. The pretest was used by the researcher to check on validity and clarity of the data collection instrument so as to improve the quality of the questionnaires and therefore increasing its strength and validity.

3.4.1.2 Reliability of Instruments.

Reliability is concerned with the extent to which the scores are free from random measurement errors. Cronbach's alpha is used to estimate internal consistency reliability by determining how items of the instrument relate to each other and the entire instrument. A Cronbach's alpha 0.7 is enough to confirm whether the variables are reliable (Sekran and Bougie , 2010).

According to Sekran and Bougie(2010), coefficient alpha is the measure of internal consistency based on the formula $a=rk/(1+(K-1)r)$, where k is the number of variables in the analysis and r is the mean of the inter-item correlation. They however caution that the alpha value is inflated by a larger number of variables so there is no set interpretation as to what is acceptable. Nevertheless, a rule of thumb that applies to most situations is given as:

a> .9- .8 – excellent

a> .6- .7 – acceptable

a> .5 – poor

3.5 Research Procedure

The study used primary data. The study used Google forms questionnaires that have a number of questions printed in a definite order on a form. The forms were sent to individual respondents, filled and sent back to the researcher via email. This tool solicited information on the influence of human resource information systems on organization performance in USIU and establish indicators of their performance. The questionnaires were both online and on printed paper for the purposes of convenience for the respondents. For those respondents who used online, the researcher's personal email was available for the respondents to send the filled out questionnaire while the printed questionnaires was collected personally by the researcher.

3.6 Data Analysis Methods

The study was descriptive in nature, with the main data collection tool being questionnaire. The questionnaires were numbered, edited and coded. Various types of descriptive statistics were used including frequencies, tables, percentages, graphs and pie charts. Inferential statistics was carried out using multiple regression models as suggested by Mugenda and

Mugenda (2003). The regression models tested for strength and predictor variables. Qualitative data is information which does not present itself in numerical form and is descriptive, appearing mostly in conversational or narrative form. There are several models which could be used in analyzing quantitative data; logit, probit, discriminant analysis and regression models. Logit, probit, discriminant analysis are suitable when the dependent variable is binary, therefore regression model was preferred for this study as recommended by Muthen and Muthen (2007) because the dependent variable is continuous. Correlation and regression analysis was done on the data collected to determine the relationship between the dependent and independent variables. Organizational performance, was clearly assessed in terms of productivity (Y). The variables were impacted by several factors ranging from Employee self service systems (objective 1) to accessibility of human resource information system (objective 2) to Manager self service system (objective 3). All the objectives and their relationships were represented by the following equation:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$$

Where

Y_i are the factors related to efficiency

X_1 = Employee self service systems

X_2 = Accessibility to human resource information

X_3 = Manager self service systems

β_0 = The intercept or constant

β_1, \dots, β_3 = The regression coefficients of the independent variables

ε_i = Error term

3.7 Chapter Summary

The study was descriptive in nature, with the main data collection tool being questionnaire and secondary data. Various types of descriptive statistics were used including frequencies, tables, percentages, graphs and pie charts. Inferential statistics were carried out using multiple regression models.

Reliability is concerned with the extent to which the scores are free from random measurement errors. Cronbach's alpha is used to estimate internal consistency reliability by determining how items of the instrument relate to each other and the entire instrument and an alpha of 0.7 is enough to confirm whether the variables are reliable.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the results and discussions. The general objective of the study was to determine the influence of Human Resource Information Systems on organization performance at United States International University-Africa. More specifically, the study sought to determine the extent to which accessibility to human resource information systems influence organization performance at USIU; to determine the extent to which Employee Self Service ESS systems organization performance USIU; and to examine the extent to which Manager Self Service MSS systems influence organization performance at USIU. The reliability and viability of the data collected for the study were ascertained.

4.2 Response Rate

The study achieved a response rate of 79.8% with 69 respondents reached, out of the 129 targeted. According to Mugenda and Mugenda (2003), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. The study therefore attained an excellent response rate as presented in table 4.1.

Table 4.1 Response rate

| Questionnaires | Frequency | Percent (%) |
|-----------------------|------------------|--------------------|
| Returned | 103 | 79.8 |
| Unreturned | 26 | 20.2 |
| Distributed | 129 | 100.0 |

4.3 Reliability

A pilot study was carried out in order to determine reliability of the questionnaires. Reliability of the questionnaires was then evaluated through Cronbach's Alpha which measures the internal consistency. The Alpha measures internal consistency by establishing if certain item measures the same construct. Nunnally (1978) established the Alpha value

threshold at 0.7 which the study benchmarked against. Cronbach Alpha was established for every objective in order to determine if each scale (objective) would produce consistent results should the research be done later on.

Table 4.2 shows that all the scales were significant, having an alpha above the prescribed threshold of 0.7. Manager self service systems had the highest reliability ($\alpha=0.833$) followed by Accesibility to human resource infromation ($\alpha=0.819$), then Employee self service systems ($\alpha=0.778$), while Efficiency had the lowest ($\alpha=0.711$). The study thus found that the analysis was reliable and could be used for further investigation.

Table 4.2 Reliability Coefficients

| Scale | Cronbach's Alpha | Number of Items |
|--|-------------------------|------------------------|
| Efficiency | 0.711 | 6 |
| Employee self service systems | 0.778 | 4 |
| Accesibility to human resource infromation | 0.819 | 5 |
| Manager self service systems | 0.833 | 5 |

4.4 Demographic information

This section captures the responses by gender, age, highest education level, position held in the university, as well as the length of service, presented and analyzed in the tables and figures.

4.4.1 Response by Gender

In order to show the gender distribution and parity for fair representation purposes, the study sought to determine the respondents' gender. Respondents were thus required to indicate by checking either male or female response categories provided. Results are presented in Table 4.3.

Table 4.3 Response by Gender

| Gender | Frequency | Percent |
|--------|-----------|---------|
| Male | 54 | 52.4 |
| Female | 48 | 46.6 |
| Total | 103 | 100.0 |

As presented in table 4.1, male respondents, 54 (52.4%), registered the most as compared to their female counterparts, 48 (46.6%). It follows then from the findings, that male respondents make the dominant gender. The fair distribution between male and female respondents further suggests that both genders are fairly represented in the study.

4.4.2 Respondents' age

The study deemed age an important demographic characteristic in the present study with a view to establish any pertinent trends in the variables under study as well as to have an overview of the age distribution thereof. Age was also deemed a relative indicator of respondents' length of experience hence reliability of responses. Figure 4.1 presents the findings.

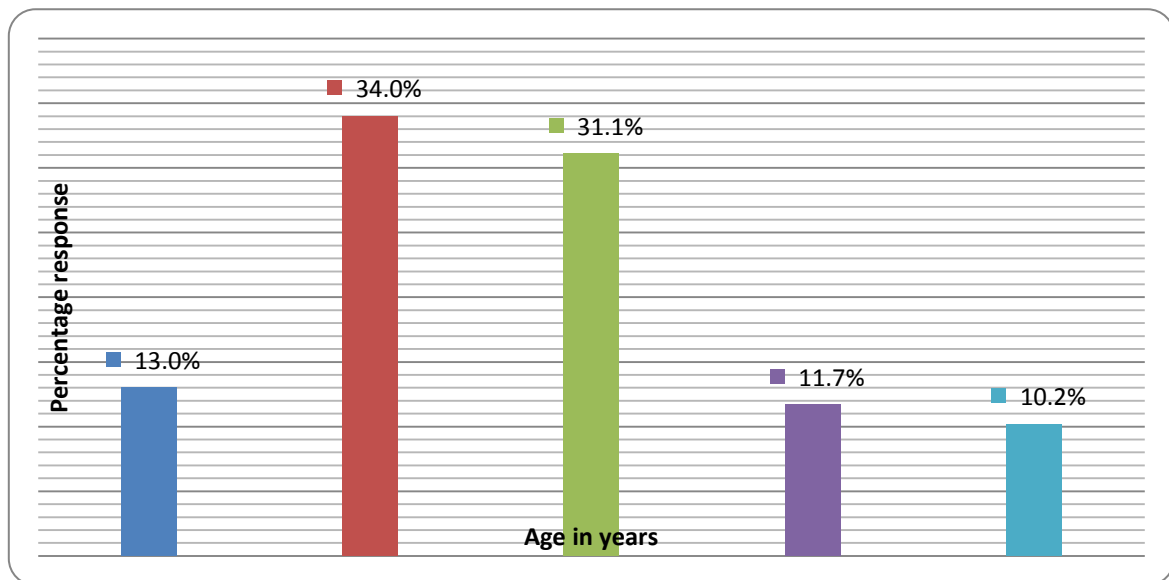


Figure 4.1 Respondents' age

Results as illustrated in figure 4.1 revealed that a majority of respondents, 34.0% fall within the 21–30 years age category. This is closely followed by those within the 31 –40 years age

category as indicated by 31.1% of the respondents while 13.0% of the respondents were below 21 years. Only 11.7% and 10.2% of respondents fall between 41–50 years and above 50 years categories respectively. As such, it can be deduced that age, across the institutions surveyed is majorly youthful to middle age, distributed, between 21 and 40 years. A rich diversity in experience was thus established in the responses.

4.4.3 Highest education levels

Respondents were also asked to indicate their highest levels of education. This would serve to show the academic qualification among respondents in their respective positions, as well as a general overview of education levels in the study area. Findings are as shown in figure 4.2.

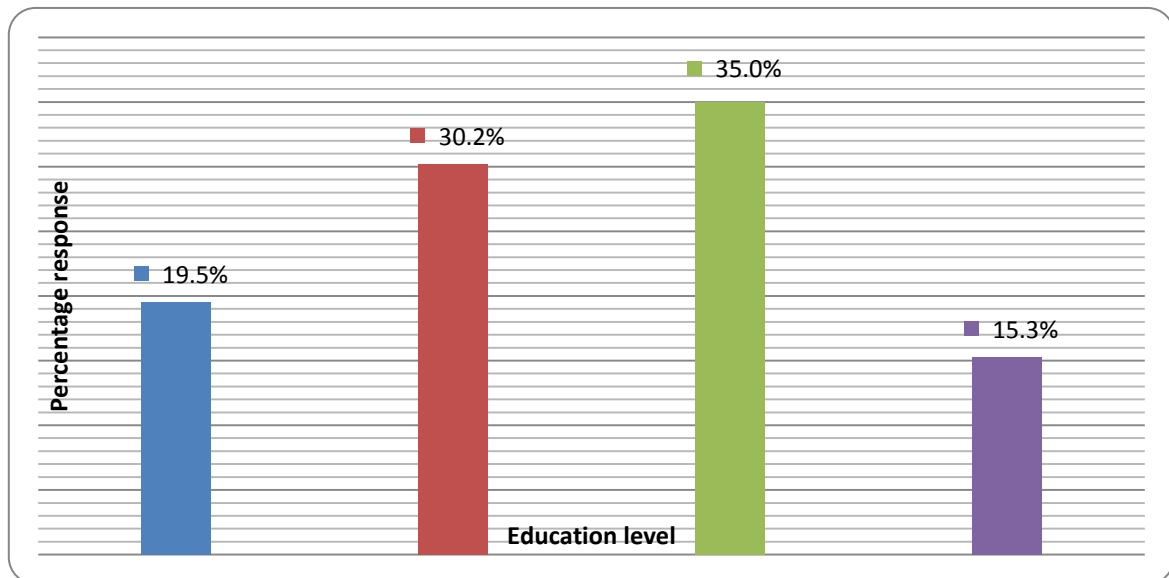


Figure 4.2 Respondents' highest levels of education

Figure 4.2 presents respondents' highest levels of education. From the findings, a majority, 35.0% of respondents indicated having attained a Degree level, followed by 30.2% having attained either a Diploma level. A further 19.5% indicated having attained a Certificate level, while only 15.3% had a Master's degree. Overall, the study area can be said to comprise staff from relatively high levels of education. It can be deduced therefore that based on their high education levels, respondents were in a position to comprehend the survey objectives and give reliable responses.

4.4.4 Position held in the University

The study further found it necessary to establish the different positions respondents worked in, in order to ascertain diversity in perspectives and for represent ability purposes for further data reliability. Figure 4.3 presents the findings.

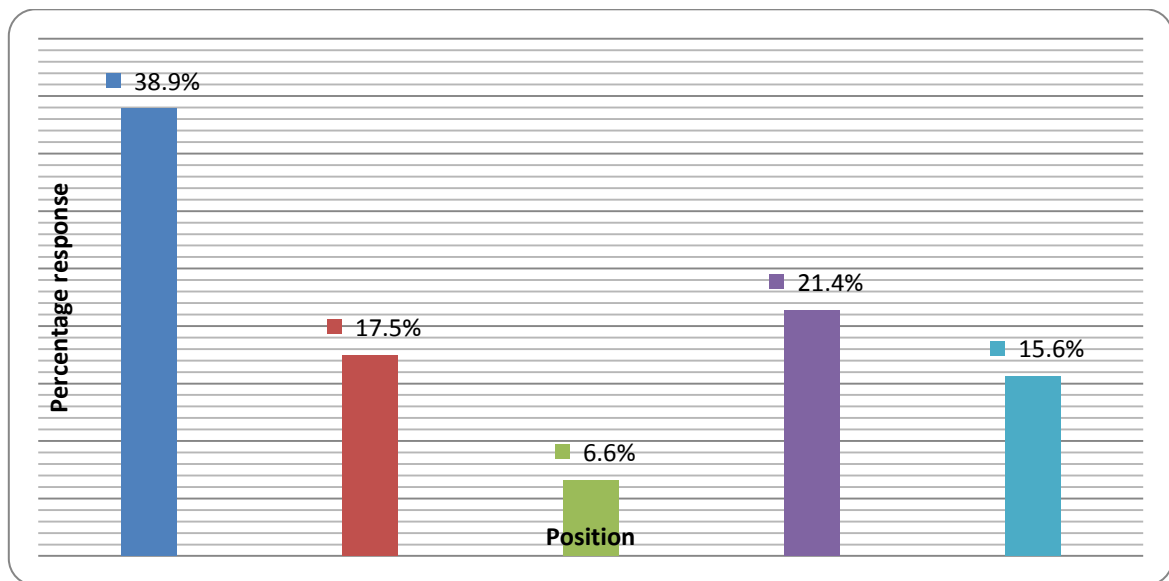


Figure 4.3 Respondents' Position held in the university

Results as shown in figure 4.3 reveal that a majority, 38.9% of the respondents were administrators, quite distantly followed by registrar at 21.4%, then HR managers (17.5%) while secretaries and lecturers were the least at 15.6% and 6.6% respectively. It can be deduced therefore, that the study reached respondents across various areas of specialization in the study area, hence diverse perspectives in responses as informed by activities in the respective departments and management levels.

4.4.5 Length of service

With some level of working experience necessary in establishing the study objectives, the study found it necessary to establish the length of service of the respondents, in years, serving at the institution. Figure 4.4 presents the findings.

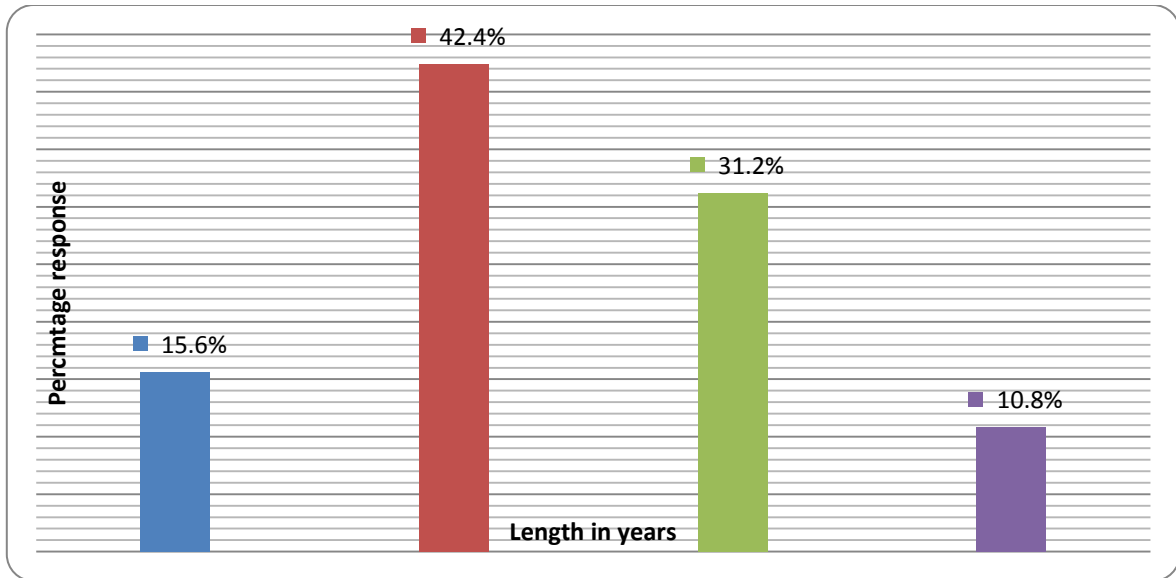


Figure 4.4 Length of service

It was established that a majority of respondents, 42.4% have worked in the study area for between 1 and 2 years. This was closely followed by those having worked for between 4 and 5 years, as indicated by 31.2% of the respondents. Only 15.6% and 10.8% of respondents were found to have worked at the study area for below 1 year and above 5 years respectively. The results present a rather fair distribution across the years representing the length of experience. With a majority of respondents having worked for at least 1 year, responses can be deemed to be informed by adequate experience in the study area.

4.5 Descriptive Statistics for Access to Human Resource Data

The study sought to determine the extent to which accessibility to human resource information systems influence organization performance at USIU. To this end, respondents were asked to respond to pertinent statements posed by indicating the level at which they agreed with the same, as applies in their respective institutions. Responses were given on a five-point likert scale (where 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). The scores of ‘Strongly Disagree’ and ‘Disagree’ have been taken to represent a statement disagreed with by a majority of respondents, equivalent to mean score of 0 to 2.5. The score of ‘Neutral’ has been taken to represent a statement affirmed to moderately, equivalent to a mean score of 2.6 to 3.4. The score of ‘Agree’ and ‘Strongly

Agree' have been taken to represent a statement highly agreed with by a majority of respondents equivalent to a mean score of 3.5 to 5.4. Table 4.5 presents the findings.

Table 4.5 Descriptive Statistics for Access to Human Resource Data

| Result Based Information | N | Mean | Std. Dev |
|---|----------|--------------|-----------------|
| HRIS has decreased time spent on inputting data | 103 | 3.870 | .8738 |
| Online job advertisement has reduced printing costs of job adverts | 103 | 3.715 | 1.1936 |
| HRIS has reduced time spent on recruiting | 103 | 3.954 | .7026 |
| The recruitment website has increased convenience of job applicants country wide | 103 | 3.119 | .9607 |
| HRIS has decreased paper work | 103 | 3.486 | .6580 |
| I can access my pay slip online | 103 | 3.499 | .6108 |
| HRIS has decreased time spent on communicating information within our institution | 103 | 3.682 | .5392 |
| Composite Mean | | 3.618 | |

As presented in table 4.5, a majority of respondents highly agreed that HRIS has reduced time spent on recruiting (3.954); HRIS has decreased time spent on inputting data (3.870); Online job advertisement has reduced printing costs of job adverts (3.119); and that HRIS has decreased time spent on communicating information within our institution (3.682). A majority however only moderately agreed that HRIS has decreased paper work (3.486); they can access my pay slip online (3.499); and that the recruitment website has increased convenience of job applicants country wide (3.119).

4.6 Descriptive Statistics for Employee Self Support Systems

The study sought to determine the extent to which Employee Self Service ESS systems organization performance USIU. To this end, respondents were asked to respond to pertinent statements posed by indicating the level at which they agreed with the same, as applies in their respective institutions. Responses were given on a five-point likert scale (where 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). Table 4.6 presents the findings.

Table 4.6 Descriptive Statistics for Employee Self-Support Systems

| Result Based Information | N | Mean | Std. Dev |
|---|----------|--------------|-----------------|
| The university offers personal computers to employees | 103 | 3.219 | .5360 |
| You are connected to the internet | 103 | 4.015 | .5137 |
| You can access human resource database | 103 | 3.613 | .4976 |
| I can update my personal information directly on my computer without going to the HR office | 103 | 3.419 | .5765 |
| The HR systems allows me to fill in leave days online | 103 | 3.823 | .4812 |
| The HRIS has improved data input process | 103 | 3.741 | .5408 |
| Our HRIS has decreased the time spent on correcting errors | 103 | 3.755 | .5312 |
| Composite Mean | | 3.655 | |

Results as presented in table 4.6 revealed that according to a majority, they are connected to the internet (4.015);HR systems allows them to fill in leave days online (3.823); HRIS has decreased the time spent on correcting errors (3.755); HRIS has improved data input process (3.741); and that they can access human resource database (3.613). A majority however only moderately agreed that they can update my personal information directly on my computer without going to the HR office (3.419); and that the university offers personal computers to employees (3.219).

4.7 Descriptive Statistics for Manager Self Service

The study sought to examine the extent to which Manager Self Service MSS systems influence organization performance at USIU. To this end, respondents were asked to respond to pertinent statements posed by indicating the level at which they agreed with the same, as applies in their respective institutions. Responses were given on a five-point likert scale (where 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). The scores of ‘Strongly Disagree’ and ‘Disagree’ have been taken to represent a statement disagreed with by a majority of respondents, equivalent to mean score of 0 to 2.5. The score of ‘Neutral’ has been taken to represent a statement affirmed to moderately, equivalent to a mean score of 2.6 to 3.4. The score of ‘Agree’ and ‘Strongly Agree’ have been taken to represent a statement highly agreed with by a majority of respondents, equivalent to a mean score of 3.5 to 5.4. Table 4.7 presents the findings.

As table 4.7 presents, a majority of respondents highly agrees that HRIS has helped in focusing staff needs (4.142); the system can facilitate tracking of employee training (4.048); Information from HRIS has enabled HR a more strategic partner in the institution (4.092); the system has improved access to performance data (4.034); the systems assist in online development and delivery of employee appraisals (3.970); information generated on our HRIS has enabled the institution decide when training and skill development is necessary (3.915); system enables us make informed decisions on who to hire (3.892); information on HRIS aids in deciding when to hire (3.857); and that information on HRIS has helped our institution decide in employee raises (3.844).

Table 4.7 Descriptive Statistics for Manager Self Service

| Result Based Information | N | Mean | Std. Dev |
|---|----------|--------------|-----------------|
| Our HRIS has helped in focusing staff needs | 103 | 4.142 | .6895 |
| The system can facilitate tracking of employee training | 103 | 4.048 | .8457 |
| The systems assist in online development and delivery of employee appraisals | 103 | 3.970 | .7554 |
| The information generated on our HRIS has enabled the institution decide when training and skill development is necessary | 103 | 3.915 | .9660 |
| The information on HRIS has helped our institution decide in employee raises | 103 | 3.844 | .9703 |
| Information from HRIS has enabled HR a more strategic partner in the institution | 103 | 4.092 | .7225 |
| The system has improved access to performance data | 103 | 4.034 | .9915 |
| The information on HRIS aids in deciding when to hire | 103 | 3.857 | .8762 |
| The system enables us make informed decisions on who to hire | 103 | 3.892 | .6436 |
| Composite Mean | | 3.977 | |

4.8 Descriptive Statistics for Organization Performance

The researcher sought the respondents' perception regarding the various aspects defining organization performance. To this end, respondents were asked to respond to pertinent statements posed by indicating the level at which they agreed with the same, as applies in their respective institutions. Responses were given on a five-point likert scale (where 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). The scores of 'Strongly Disagree and 'Disagree' have been taken to represent a statement disagreed with by a majority of respondents, equivalent to mean score of 0 to 2.5. The score of 'Neutral' has been taken to represent a statement affirmed to moderately, equivalent to a mean score of 2.6 to 3.4. The score of 'Agree' and 'Strongly Agree' have been taken to represent a

statement highly agreed with by a majority of respondents, equivalent to a mean score of 3.5 to 5.4. Table 4.8 presents the findings.

Table 4.8 Descriptive Statistics for Organization Performance

| Result Based Information | N | Mean | Std. Dev |
|---|----------|--------------|-----------------|
| HRIS has improved the quality of service being provided by the institution | 103 | 3.892 | .7965 |
| The information from HRIS enables decisions to be made faster | 103 | 4.023 | .6632 |
| HRIS has increased coordination between HR department and other departments | 103 | 4.335 | .9267 |
| HRIS has enabled our institution to be competitive | 103 | 4.276 | .5923 |
| Managing the huge number of employees has become easier with the introduction of HRIS | 103 | 4.355 | .8633 |
| HRIS has seen the reduction or elimination of unnecessary costs | 103 | 3.492 | .6612 |
| Number of HR operations has increased with the introduction of HRIS | 103 | 3.492 | .7965 |
| HRIS has increased the level of social interaction between employees | 103 | 3.701 | .9431 |
| Access to information is faster and private with HRIS | 103 | 3.813 | .5423 |
| HRIS has reduced the time spent on projects significantly | 103 | 3.976 | .8612 |
| HRIS has increased the level of employee involvement in decision making | 103 | 3.913 | .5617 |
| HRIS has increased the use of employee input when planning for the company's future | 103 | 3.701 | .4431 |
| Composite Mean | | 3.914 | |

It was established as tabulated in table 4.8 that a majority of respondents highly agrees that Managing the huge number of employees has become easier with the introduction of HRIS (4.355); HRIS has increased coordination between HR department and other

departments(4.335); HRIS has enabled our institution to be competitive (4.276); HRIS has reduced the time spent on projects significantly (3.976); HRIS has improved the quality of service being provided by the institution (3.892); Access to information is faster and private with HRIS (3.813); and that HRIS has increased the level of social interaction between employees (3.701). A majority of respondents however only moderately agreed that HRIS has seen the reduction or elimination of unnecessary costs (3.492); and that Number of HR operation has increased with the introduction of HRIS (3.492).

4.9 Pearson Correlation Analysis

Table 4.9 presents the Pearson correlations for the relationships between the various human resource information system constituents and organization performance. From the findings, a positive correlation is seen between the each constituent with the dependent variable. The strongest correlation was obtained between Manager Self Service and organization performance ($r = .798$ $p < .01$), and the weaker relationship found between Access to Human Resource Data and organization performance ($r = .708$ $p < .01$). Employee Self-Support Systems is also strongly and positively correlated with organization performance at correlation coefficient of .716. All the independent variables were found to have a statistically significant association with the dependent variable at 0.01 level of confidence. However, access to Human Resource Data had a negative significant correlation with both Employee Self-Support Systems and Manager self-service systems. The negative correlation suggests that the two sets of variables are inversely proportional, meaning as access to Human Resource Data increases, Self-Support Systems and Manager self-service systems decrease.

Table 4.9 Pearson Correlation Matrix

| | Organization performance | Access to Human Resource Data | Employee Self Support Systems | Manager self-service systems |
|-------------------------------|--------------------------|-------------------------------|-------------------------------|------------------------------|
| Performance | 1 | | | |
| Access to Human Resource Data | .708** | 1 | | |
| Employee Self Support Systems | .004 | .000 | 1 | |
| Manager self-service systems | .716** | -.485** | .692** | 1 |
| | .000 | .001 | .000 | .000 |

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

4.10 Regression Analysis

To establish the degree of influence of the various human resource information system constituents and organization performance, a regression analysis was conducted among the variables, with the assumption that: variables are normally distributed to avoid distortion of associations and significance tests, which was achieved as outliers were not identified; a linear relationship between the independent and dependent variables for accuracy of estimation, which was achieved as the standardized coefficients were used in interpretation.

The regression model was as follows:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$$

Where

Y_i are the factors related to efficiency

X_1 = Employee self service systems

X_2 = Accessibility to human resource information

X_3 = Manager self service systems

β_0 = The intercept or constant

β_1, \dots, β_3 = The regression coefficients of the independent variables.

Regression analyses produced the coefficients of determination and Analysis Of Variance (ANOVA). Analysis of variance was done to show whether there is a significant mean difference between dependent and independent variables. The ANOVA was conducted at 90% confidence level. According to Katz (2006) Regression analysis generates an equation to describe the statistical relationship between one or more predictor variables and the response variable.

A look at Tables 4.10 reveals that the R square for the model was .748 while the adjusted R Square was .720. This means that the model comprising Employee self-service systems, Manager self-service systems and Access to Human resource Information systems was able to explain approximately 72% of the variance in scores measuring the university's organization performance. Also, the linear regression model was significant in predicting organization performance ($F(4,36)=26.68, p<.01$). Consequently, it is possible to conclude that the three predictor variables are good predictors of organizational performance of the university.

Table 4.10 HRIS and Organizational Performance.

| Model Summary | | | | |
|----------------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .865 ^a | .748 | .720 | 1.94285 |

a. Predictors: (Constant), Manager self-service systems, Access to Human Resource Data, Employee Self Support Systems

| ANOVA^b | | | | | | |
|--------------------------|------------|----------------|----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 402.892 | 4 | 100.723 | 26.684 | .000 ^a |
| | Residual | 135.888 | 36 | 3.775 | | |
| | Total | 538.780 | 40 | | | |

a. Predictors: (Constant), Manager self-service systems, Access to Human Resource Data, Employee Self Support Systems

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .865 ^a | .748 | .720 | 1.94285 |

b. Dependent Variable: Organizational Performance

Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|-------------------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 4.242 | 8.138 | | .521 | .065 |
| | Access to Human Resource Data | .610 | .998 | .099 | .611 | .545 |
| | Continuous improvement | 1.576 | .905 | .205 | 1.742 | .090 |
| | Employee Self Support Systems | .336 | .112 | .353 | 3.011 | .005 |
| | Manager self Service systems | 2.435 | .867 | .421 | 2.809 | .008 |

a. Dependent Variable: Performance

The result showed a coefficient of determination value of .865^a which depicts that a strong linear dependence between all the human resource information system constituents and organization performance. With an adjusted R-squared of .720, the model shows that Manager self-service systems, Continuous improvement, Employee Self Support Systems and Access to Human Resource Data collectively explain 72.0% of the variations in the performance of customer based connectivity projects while 28.0% is explained by other factors not included in the model. The P-value of 0.01 implies that organizational performance has a significant joint relationship with Manager self-service systems and Employee Self Support Systems, which is significant at 99% confidence level but not significant with Access to Human Resource Data at 99% confidence level. This implies that the regression model is significant and can thus be used to assess the association between the dependent and independent variables. The regression coefficients further reveal positive associations between organizational performance and the predictor variables. It was further

revealed that Access to Human Resource Data does not significantly influence organizational performance, based on the levels of significance both at 0.05 and 0.01 confidence intervals. A unit change in Employee Self Support Systems would thus lead to a .336 increase in organizational Performance *ceteris paribus* and a unit change in Manager self-service systems would lead to a 2.435 increase in organizational Performance. Some variables were found to be significant at the correlation level but not at the regression level. This can be attributed to the grouping of the independent variables together at the correlation level but in isolation and keeping other factors constant at the regression level.

4.10.1 Regression Analysis for Access to Human Resource Data

The linear regression model assessed the ability of access to HRD to predict organization performance in USIU-A. According to Table 4.10, access to HR Information Data was found to be the weakest predictor of performance (Beta=.099). None the less, it has a positive but insignificant effect at 99%(0.545>0.01) confidence interval on organization performance. The finding disagrees with the findings of a study by Normalini *et al* (2012) which established that granting employees' access to HR information is empowering and increases the value of their work. The divergent view in this study may be attributed to the fact that employees at USIU-Africa have not fully embraced HRD in their operations hence lack of significant effect of HRD on organizational performance at USIU-Africa

4.10.2 Regression Analysis for Continuous Improvement (CI)

The effect of continuous improvement on predicting organization performance was assessed in the linear regression model in Table 4.1 and the results indicated that the coefficient of continuous improvement (Beta 0.205) had a positive but insignificant effect. At 99%(P=0.090<0.01) confidence interval. Holding all other factors constant a unit change in will cause an increase of 20.5% in organization performance at USIU-Africa.

4.10.3 Regression Analysis for Employee Self Service systems.

The effect of ESS systems on predicting organization performance was assessed in the linear regression model described in Table 4.10 and was found to be significant, however, it was found to be the second most important predictor of performance (Beta=.353,P, 0.005<0.01). This is to say that when other factors are held constant a unit change in ESS will cause

organization performance to increase by 35.3%. This results supports Crestone (2010) survey notes that ESS websites enable employees perform many functions independently and rely less on HR. This results in greater convenience for employees and cost saving to the organization and thus increases the overall performance of the organization.

4.10.4 Regression Analysis for Manager Self Service systems.

Manager Self Service systems were found to have the strongest influence on performance (Beta=.421,P 0.008<0.01). Holding all other factors constant performance of the university can be improved by 42.1% with a nit change in MSS. These results agree with findings of Gardner (2003)that reports on the benefit of giving managers access to self Service systems. Managers become more efficient, responsive and autonomous. This study explored the ways in which MSS has contributed to the university's performance. Ngai and Wat (2006) state that MSS helps in giving managers ready access to information hence making them more responsive.

4.11 Chapter Summary

A positive correlation is seen between each constituent with the dependent variable. The strongest correlation was obtained between Manager Self Service and organization performance ($r = .798$), and the weaker relationship found between Access to Human Resource Data and organization performance ($r = .708$). Employee Self-Support Systems is also strongly and positively correlated with organization performance at correlation coefficient of .716. All the independent variables were found to have a statistically significant association with the dependent variable at 0.01 level of confidence. However, access to Human Resource Data had a negative significant correlation with both Employee Self-Support Systems and Manager self-service systems. The negative correlation suggests that the two sets of variables are inversely proportional, meaning as access to Human Resource Data increases, Self-Support Systems and Manager self-service systems decrease.

CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the research findings. The implications from the findings and areas for further research are also presented.

5.2 Summary

The study provided two types of data analysis; descriptive and inferential. The descriptive analysis helped the study to describe the relevant aspects of the phenomenon under study. The frequencies, percentages, mean and standard deviation were determined. For the inferential analysis, the study used Pearson correlation and multivariate regression analysis techniques to establish the relationship between the independent and dependent variables.

A multiple regression model with scores for Employee Self Service Systems, accessibility to Human Resource Data and Manager Self Service Systems as the predictor variables and scores for Organizational performance in USIU as the outcome variable was created.

The regression model revealed that the three predictor variables contributed unequally to predicting organization performance. The scores for Manager Self Service was found to make the greatest contribution to predicting performance (Beta=.421) which leads to the conclusion that Manager Self Service was the most important among the three variables under the study. The second important predictor of organization performance was employee self-support systems (Beta=.353). The score for access to human resource information made the least positive but insignificant contribution to predicting performance (Beta=.099). Taken together, the three predictor variables accounted for approximately 74% of the variance in scores of organization performance (R Square = .748) which means therefore it is possible to conclude that the model created in this study was very effective in predicting organization performance.

5.3 Discussion

5.3.1 Effect of Access to Human Resource Data on organization performance

The study sought to determine the extent to which accessibility to human resource Data influence organization performance at USIU. A majority of respondents highly agreed that HRIS has reduced time spent on recruiting (3.954); HRIS has decreased time spent on inputting data (3.870); Online job advertisement has reduced printing costs of job adverts (3.119); and that HRIS has decreased time spent on communicating information within our institution (3.682). This is in line with (Dery *et al* 2009; Wilben *et al.*, 2010; Saharan and Jafri, 2012) who assert that HRIS could improve administrative efficiency through faster information processing, improved employee communications, greater information accuracy, lower HR costs and productivity improvements. A majority however only moderately agreed that HRD has decreased paper work (3.486); they can access their pay slip online (3.499); and that the recruitment website has increased convenience of job applicants country wide (3.119).

With a composite mean of 3.618, it can thus be deduced from the foregoing that HRD can improve both employees' and managements' access to human resource data across the institution which may lead to an increase in organization performance. However, from the descriptive statistics where a majority asserts that paper work is not yet reduced, this incongruence with the findings of Zu'bi (2014) on studying Jordanian organizations which highlighted reduced paper work as one of the benefits of adopting HRIS, it can be deduced that HRD has not been fully embraced in organization performance at USIU-although there has been notable improvement in the areas that have embraced HRD particularly in the reduction of time spent on recruiting as well as on inputting data; reduced printing costs of job adverts through online job advertisement. There have also been significant reductions in time spent on communicating information within the institution. The finding is in tandem with Normalini *et al.* (2012) who found that information technology appears to serve as an empowering function for HR professionals, providing the medium in which HR professionals can provide increased value to their work. Focusing on internal factors and resources are the principal factors of a sustainable advantage. The value brought by human resource is the core of this approach where flexibility is optimized to reduce costs and

increase efficiency. Human resource when managed appropriately and in the right manner tend to add value, generate uniqueness and use resources more efficiently as compared to other companies in a case where both companies have the same level of physical assets and all constants held. The finding is also in agreement with Capelli (2009) who asserts that today employees, managers, health insurers, workers' compensation careers, senior executives, job application and regulatory agencies have access to Human Resource information.

Further, according to Breugh (2009), online recruitment has become one of the primary methods employed by HR departments to garner potential candidate for available positions within an organization. With online recruitment comes the advantage of having a wider pool of applicants from where the hiring company can choose the right candidate with the tight attitude to fit in its culture and drive and achieve their organization's goals, mission and vision.

Positive correlations were noted in the correlation matrix between the score for organization performance and the scores for access to human resource data ($r=.708$ $p<.01$) however, access to Human resource data does not influence performance as it was not significant at 99% confidence level.

The findings of the study echo the sentiments of Anthony *et al.*, (2002) who affirms that in implementing or deployment of new information technology products or systems the special function of HR which is to gather, collect and help in the analysis of the data necessary for the department to do its job efficiently is heightened.

5.3.2 Effect of Employee Self-Support Systems on organization performance

The study also sought to determine the extent to which Employee Self Service ESS systems influence organization performance at USIU. It was revealed that according to a majority, they are connected to the internet (4.015); HR systems allows them to fill in leave days online (3.823); HRIS has decreased the time spent on correcting errors (3.755); HRIS has improved data input process (3.741); and that they can access human resource database (3.613). A majority however only moderately agreed that they can update their personal

information directly on their computer without going to the HR office (3.419); and that the university offers personal computers to employees (3.219).

With a composite mean of 3.655, significant improvements in employee self-support systems have been noted in the institution, attributable to HRIS. Key among these improvements include connection to the internet, ability to fill in leave days online, reduced time spent on correcting errors, improved data input process and access to human resource database. This is in agreement with Crestone (2010) who found that ESS websites, often enabled through the HR portal, allow many HR questions and transaction to be handled directly by employees. In their survey they claim that a well-designed ESS allows employees to make informed choices and to become self-reliant for many HR services. It is also said that due to the accessibility of information that they possess, employees' response to queries is increased ten-fold and they are can provide more accurate information this translates to increased efficiency. The most important of all the facets of HRIS is accuracy, and when combined with timeliness tremendously increases reporting capacity. Control is therefore of paramount interest to ensure that the correct information is received by the relevant parties and that security as well as integrity is maintained at all times where appropriate.

ESS systems also allow employees to have access to and update their records without the assistance of a human resource practitioner. It also provides a platform where employees use the system for administrative alternatives (Wayne, 1997). This means reduced operational costs to the organization, improved quality of services offered and increased innovation from the employees since it reduces redundancy and duplication of processes while to the employees this means increased convenience and reduced errors in the system in terms of data update.

This model was found to be statistically significant ($F(436)=26.684$, $p<.01$) which means that a combination of the two, Employee self-service systems, and Manager self-service systems predictor variables were able to predict the performance of the university employees. In addition, positive correlations were noted in the correlation matrix between the score for organization performance and scores for employee self-support systems ($r=.716$ $p<.01$) which leads to the conclusion that employee self-support systems has an influence on the performance of the University.

Accordingly, Broderick and Bourdeau, (1992) argued that HRIS contributes greatly to cost reduction in the organization, improved quality offered and innovation. It is due to the timely information provided by the employees that the organization can now profile its staff in terms of strengths and weaknesses hence becoming easy to match the organization's goals to its staff. Such information is useful in that they can be able to make appropriate decisions on recruitment, training and promotion, this way the right people are placed in the right place at the right time (Hosie 1995; Kavanagh and Johnson, 2015).

5.3.3 Effect of Employee Manager Self Service Systems on organization performance

The study further sought to examine the extent to which Manager Self Service MSS systems influence organization performance at USIU. A majority of respondents highly agree that HRIS has helped in focusing staff needs (4.142); the system can facilitate tracking of employee training (4.048); Information from HRIS has enabled HR become a more strategic partner in the institution (4.092); the system has improved access to performance data (4.034); the systems assist in online development and delivery of employee appraisals (3.970); information generated on our HRIS has enabled the institution decide when training and skill development is necessary (3.915); system enables them make informed decisions on who to hire (3.892); information on HRIS aids in deciding when to hire (3.857); and that information on HRIS has helped the institution decide in employee raises (3.844).

As with employee self-support systems, with a composite mean of 3.977, significant improvement in Manager Self Service have been identified in the institution, courtesy of HRIS. These include management's ability to focus staff needs, ability to track employee training, improved access to performance data, enabled online development and delivery of employee appraisals, enhanced decision making on when training and skill development is

necessary, who to hire and when to hire as well as in deciding in employee raises. The finding conforms to Gardners (2003) finding that HR professionals were able to provide increased information responsiveness to the clients that they served as well as to act autonomous when handling information making them more efficient. Ngai and Wat (2006) also found that the greatest benefit of the implementation of the HRIS were the quick response and access to information that it brought, while the greatest barrier was insufficient financial support.

Positive correlations were noted in the correlation matrix between scores for organization performance and scores for employee self-support systems ($r=.716$ $p<.01$). Employee self-support systems was found to have an influence on the performance of the University as it was significant at 99% confidence level.

Study conducted by Delorme and Arcand (2010), supports the study's findings as it elaborated the development of the roles and responsibilities of the HR practitioner from a traditional perspective to a strategic Perspective, found that the introduction of new technologies in the organization affected the way HR professionals accomplished their tasks within the HR department and the rest of the organization. These systems make organizations perform better and run efficiently. Managers are now more involved in HR work which was in the first place meant to be theirs, for example pay rise, promotion, approving leave requests and changing an employee's classification. Who to better do all these than the manager who frequently interacts with the members of his/her department and knows the strong holds and weaknesses of every individual? With transparency, the managers are the best fit for making all the above decisions than the HR department is.

Managers are also given the allowance of handling HR functions such as performance management, succession planning and on boarding now that access to such information is available on a click of a button. As should be noted all the above roles were traditionally HR duties but with tie and experience it has been noted that the managers are best fit to deal with such activities effectively than the HR thus with ESS, when managers handle transactions, HR budgets will see savings (Kolb and Aiello, 2007).

Training tracking of employees which is also highlighted in the discussion with a mean of 4.048 is one of the factors to enable an organization gain a sustainable competitive advantage over the others as explained by Shikha and Karishma (2012).

5.3.4 Findings on Organization Performance

The researcher sought the respondents' perception regarding the various aspects defining organization performance. A majority of respondents highly agree that Managing the huge number of employees has become easier with the introduction of HRIS (4.355); HRIS has increased coordination between HR department and other departments (4.335); HRIS has enabled our institution to be competitive (4.276); HRIS has reduced the time spent on projects significantly (3.976); HRIS has improved the quality of service being provided by the institution (3.892); Access to information is faster and private with HRIS (3.813); and that HRIS has increased the level of social interaction between employees (3.701). A majority of respondents however only moderately agreed that HRIS has seen the reduction or elimination of unnecessary costs (3.492); and that number of HR operations has increased with the introduction of HRIS (3.492).

As such, at a composite mean of 3.914, it can be deduced that HRIS has significantly improved organizational performance in the institution. Most notable improvements have particularly been in the improved efficiency in managing the huge number of employees, increased coordination between HR department and other departments, enhanced competitive advantage, significant reduction in the time spent on projects, improved service quality in the institution, faster and private access to information as well as increased level of social interaction between employees. The finding agrees with Marler and Duebohn (2008), who assert that the significant cost incurred in maintaining an organized recruitment effort, cross-posting within and across general or industrial-specific jobs boards and maintaining a competitive exposure of availabilities has given rise to the development of a dedicated applicant tracking system. Accordingly, Jackson et al. (2009) argued that low level HRIS barely allow employees access information to general information, company policies, procedures and events, through the intranet. Sadiq (2013) showed that HRIS is positively used as a tool to achieve greater administrative efficiency by adding value in the department.

Pearson correlation for the relationships between the various human resource information system constituents and organization performance was further performed. From the findings, a positive correlation is seen between each constituent with the dependent variable. The strongest correlation was obtained between Manager Self Service and organization

performance ($r = .798$), and the weaker relationship found between Access to Human Resource Data and organization performance ($r = .708$). Employee Self-Support Systems is also strongly and positively correlated with organization performance at correlation coefficient of .716.

5.4 Conclusion

5.4.1 Effect of Access to Human Resource Data on organization performance

From the foregoing findings, the study hereby concludes that HRIS has significantly improved both employees' and managements' access to human resource data across the institution. Most notable improvements have particularly been noted in the reduction of time spent on recruiting as well as on inputting data; reduced printing costs of job adverts through online job advertisement. There have also been significant reductions in time spent on communicating information within the institution.

5.4.2 Effect of Employee Self-Support Systems on organization performance

It is also hereby deduced that significant improvements in employee self-support systems have been noted in the institution, attributable to HRIS. Key among these improvements include connection to the internet, ability to fill in leave days online, reduced time spent on correcting errors, improved data input process and access to human resource database.

5.4.3 Effect of Employee Self-Support Systems on organization performance

As with employee self-support systems, significant improvement in Manager Self Service has been identified in the institution, courtesy of HRIS. These include management's ability to focus staff needs, ability to track employee training, improved access to performance data, enabled online development and delivery of employee appraisals, enhanced decision making on when training and skill development is necessary, who to hire and when to hire as well as in deciding in employee raises.

5.4.4 Organization Performance

It can further be deduced that HRIS has significantly improved organizational performance in the institution. Most notable improvements have particularly been in the improved efficiency in managing the huge number of employees, increased coordination between HR

department and other departments, enhanced competitive advantage, significant reduction in the time spent on projects, improved service quality in the institution, faster and private access to information as well as increased level of social interaction between employees.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Access to Human Resource Data

Research findings clearly show that senior HR executives are well aware that they can increase the efficiency of HR planning through HRIS, saving time and cost. However, findings do not support the premise that HRIS increases the efficiency of HR planning other than in functional work such as job analysis. Organizations should identify the strategic value and competitive advantage that they can gain through HRIS in HR planning.

HRIS outcomes can be applied wherever possible as deemed fit by the HR professionals, going by their experiences. Contradicting situations need to be documented and discussed with the vendors. For example, even though 57.30% of senior HR executives believe that managers find HRIS detailed training plan relevant to their needs, just 31.40% of them (senior HR executives) are convinced that employees find HRIS training programs relevant to their (employees') needs. Most organizations have e-recruiting facility but they do not use it fully since they have more faith in traditional methods of recruiting. HRIS e-recruiting facility is used by only 49.40% of senior HR executives to recruit employees.

Human resource information systems may be a key enabler allowing HR professionals to balance successfully the competing roles of administrative expert, employee champion, change agent, and strategic partner. There is also a risk that large investments in HRIS will not improve HR professionals' satisfaction or render the SHRM tasks performance a more efficient cost center. This may be outgrowth of low technology-acceptance among intended users, inappropriate technology choices, or other factors. Until more is known, investments in these innovations should proceed with caution.

5.5.1.2 Employee Self-Support Systems

Employee Self-Service allows employees to query HR related data and perform some HR transactions over the system. Employees may query their attendance record from the system

without asking the information from HR personnel. It is also apparent that ESS allows employees to access information associated with their employment. They can update their addresses, change bank accounts for direct deposits, record time sheet information, change departments, check their performance across different periods and do a comparison. Employee self-service provides a platform for connecting your workforce to business process because employees can set their email preferences to receive updates or log on at any time. Employee self-service serves as a great tool to keep employees up-to-date on the goings on within your organization. It also let supervisors approve overtime requests from their subordinates through the system without overloading the task on HR department. This increases cost reductions in the organization, improves quality offered, innovation and employee engagement. Hence the university should invest in embracing this model to experience increased productivity.

5.5.1.3 Manager Self-service

This has proved to enable managers be more involved in HR work which was in the first place meant to be theirs. According to the findings of the study, to improve organizational performance, the University should update information systems continuously and top management to support the role of Manager Self-service in improving organization's performance, engage employee in the analysis, design, construction and development of information system and also train employees on how to use Human Resource information system to improve their performance. Also, the researcher recommends that the university administration streamlines MSS so that managers benefit more from it.

5.5.1.4 Organization Performance

Organizations heavily rely on HRIS to generate information used in managerial decision making that optimize the contribution and potential of a firm's human capital. Human Resource Information Systems are used by many companies to advance daily human resource management operations. The reason for their growth in popularity is that they have been found to be useful and applicable to administrative, strategic and business decision making functions of any organization. Using technology to manage human resources helps drive improvements in overall business performance. HRIS tools can give you the insight you need to your biggest asset and biggest expense, being your employees. Those businesses

which learn to use HRIS systems enjoy the results which they ultimately see in their bottom line. Thus managements and organizations ought to take up HRIS to ensure augmented performance.

5.5.2 Recommendation for further Research

Whilst this study has confirmed existing studies into HRIS, it provides a platform for future work in this area, which should concentrate on a number of issues. First, a detailed research would be needed to explore the role of HRIS in employee performance, especially; with much, bigger sample size and a higher response rate so that a deeper analysis can be done for generalization. Second, HRIS represent a large investment decision for companies of all sizes. However, SMEs are increasingly failing to use HRIS in support of strategic HRM tasks. It would therefore be very interesting if future research could geared towards finding answers to why SMEs are reluctant to commit time and resources for the implementation of HRIS in strategic HR tasks. This will enable a careful analysis and diligent consideration of HRIS application to strategic HR tasks since a successful execution is rewarded with numerous benefits including improved accuracy, provision of just-in-time information, and costs saving.

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APPENDICES

Appendix 1: Letter to Respondents

Otieno Lorraine Grace,

Chandaria School of Business

P.O Box 10111 – 00100

Nairobi

Dear Sir / Madam,

SUBJECT: REQUEST FOR INFORMATION

I am undertaking a Masters of Business Administration degree program specializing in Human Resources Management at USIU. As part of my studies I am undertaking a research on “Influence of Human Resource Information Systems on Organization performance at USIU.” The aim of this study is to establish the relationship between Human Resource Information systems and Organization Performance.

This is a kind request that you assist me by filling the attached questionnaire. The information provided will be used only for academic purposes and responses given will be attended confidentially.

Thank you very much for your time and cooperation.

Otieno Lorraine Grace

Sample Questionnaire 1

Section A: Demographic details and general information

1. Name (optional)

2. Sex (Tick as appropriate)

Male

Female

3. Age(Tick as appropriate)

Below 21

21-30

31-40

40-50

Above 50

4. Educational Qualification(Tick as appropriate)

Certificate

Diploma

Degree

Masters

Others (specify)

5. Position held in the university (tick as appropriate)

HR Manager

Registrar

Administrators

Secretarial

Lecturers

6. Number of years of service in the university

Below 1

1-2 years

4-5 years

Above 5 years

SECTION B: Independent Variables

7. Access to Human Resource Data (tick as appropriate)

As an employee answer the following question on your level of agreement or disagreement basing on the extent to which human resource information systems in your work place influence organization performance.

1. Strongly Disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly Agree

| Factor | Strongly Disagree | Disagree | Not sure | Agree | Strongly Agree |
|--|-------------------|----------|----------|-------|----------------|
| HRIS has decreased time spent on inputting data | | | | | |
| Online job advertisement has reduced printing costs of job adverts | | | | | |
| HRIS has reduced time spent on recruiting | | | | | |
| The recruitment website has increased convenience of job applicants country wide | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| HRIS has decreased paper work | | | | | |
| I can access my pay slip online | | | | | |
| HRIS has decreased time spent on communicating information within our institution | | | | | |

8. Employee Self Support Systems (tick one answer only)

1. Strongly Disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly Agree

| Factor | Strongly Disagree | Disagree | Not sure | Agree | Strongly Agree |
|---|-------------------|----------|----------|-------|----------------|
| The university offers personal computers to employees | | | | | |
| You are connected to the internet | | | | | |
| You can access human resource database | | | | | |
| I can update my personal information directly on my computer without going to the HR office | | | | | |
| The HR systems allows me to fill in leave days online | | | | | |
| The HRIS has improved data input process | | | | | |
| Our HRIS has decreased the time spent on correcting errors | | | | | |

9. SECTION C: Dependent Variable (Organization Performance)

As an employee answer the following question on your level of agreement or disagreement basing on the extent to which human resource information systems in your work place influence Organization Performance.

1. Strongly Disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly Agree

| Factor | Strongly Disagree | Disagree | Not sure | Agree | Strongly Agree |
|--|-------------------|----------|----------|-------|----------------|
| HRIS has improved the quality of service being provided by the institution | | | | | |
| The information from HRIS enables decisions to be made faster | | | | | |
| HRIS has increased coordination between HR department and my department | | | | | |
| HRIS has increased the level of social interaction between employees | | | | | |
| Access to information is faster and private with HRIS | | | | | |
| HRIS has reduced the time spent on projects significantly | | | | | |

Thank you for your cooperation

Section A: Demographic details and general information

1. Name (optional)

2. Sex (Tick as appropriate)

Male

Female

3. Age(Tick as appropriate)

Below 21

21-30

31-40

40-50

Above 50

4. Educational Qualification(Tick as appropriate)

Certificate

Diploma

Degree

Masters

Others (specify)

5. Position held in the university (tick as appropriate)

HR Manager

Registrar

Administrators

6. Number of years of service in the university

Below 1

1-2 years

4-5 years

Above 5 years

SECTION B: Independent Variables

6. Access to Human Resource Data (tick as appropriate)

As an employee answer the following question on your level of agreement or disagreement basing on the extent to which human resource information systems in your work place influence Organization Performance.

1. Strongly Disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly Agree

| Factor | Strongly Disagree | Disagree | Not sure | Agree | Strongly Agree |
|--|-------------------|----------|----------|-------|----------------|
| HRIS has decreased time spent on inputting data | | | | | |
| Online job advertisement has reduced printing costs of job adverts | | | | | |
| HRIS has reduced time spent on recruiting | | | | | |
| The recruitment website has increased convenience of job applicants country wide | | | | | |
| HRIS has decreased paper work | | | | | |
| I can access my pay slip online | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| HRIS has decreased time spent on communicating information within our institution | | | | | |
|---|--|--|--|--|--|

7. Manager Self Service (tick as appropriate)

1. Strongly Disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly Agree

| Factor | Strongly Disagree | Disagree | Not sure | Agree | Strongly Agree |
|---|-------------------|----------|----------|-------|----------------|
| Our HRIS has helped focusing staff needs | | | | | |
| The system can facilitate tracking of employee training | | | | | |
| The systems assist in online development and delivery of employee appraisals | | | | | |
| The information generated on our HRIS has enabled the institution decide when training and skill development is necessary | | | | | |
| The information on HRIS has helped our institution decide in employee raises | | | | | |
| Information from HRIS has enabled HR a more strategic partner in the institution | | | | | |
| The system has improved access to performance data | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| The information on HRIS aids in deciding when to hire | | | | | |
| The system enables us make informed decisions on who to hire | | | | | |

8. SECTION C: Dependent Variable (Organization Performance)

As an employee answer the following question on your level of agreement or disagreement basing on the extent to which human resource information systems in your work place influence organization performance.

- 9. Strongly Disagree
- 10. Disagree
- 11. Not sure
- 12. Agree
- 13. Strongly Agree

| Factor | Strongly Disagree | Disagree | Not sure | Agree | Strongly Agree |
|---|-------------------|----------|----------|-------|----------------|
| HRIS has improved the quality of service being provided by the institution | | | | | |
| The information from HRIS enables decisions to be made faster | | | | | |
| HRIS has increased coordination between HR department and other departments | | | | | |
| HRIS has enabled our institution to be competitive | | | | | |
| Managing the huge number of employees has become easier with the introduction of HRIS | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| HRIS has seen the reduction or elimination of unnecessary costs | | | | | |
| Number of HR operations has increased with the introduction of HRIS | | | | | |
| HRIS has increased the level of social interaction between employees | | | | | |
| Access to information is faster and private with HRIS | | | | | |
| HRIS has reduced the time spent on projects significantly | | | | | |
| HRIS has increased the level of employee involvement in decision making | | | | | |
| HRIS has increased the use of employee input when planning for the company's future | | | | | |

Thank you for your cooperation

Appendix 3: Operationalization and Measurement of Variables

| Category | Variable | Indicators | Operationalization | Measurement |
|-----------------------|-------------------------------|-------------------------|---|-------------------------------|
| Dependent variable | Organization performance | Productivity | Ability of attaining and improving output and performance due to initiatives introduced | Continuous |
| | | Service Delivery | Ability to achieve the set goals at the anticipated time | Continuous |
| | | Efficiency | | |
| Independent variables | Access to Human Resource Data | Recruiting | Online recruitment site | Five point Likert Scale 1 - 5 |
| | | Bulletin boards | Information on personnel policies, job postings and training materials can be accessed by employees | |
| | | Payroll information | Access to past or current pay slip | |
| | Employee Support Systems | Benefits administration | Linked to databases and an intranet allows employees to access the benefit | Five point Likert Scale 1 – 5 |
| | | Personal data | Updating their own data | |
| | | Dependent data | Updating information on dependents | |
| | Manager Self Service | Analytics module | Data for HR forecasting and costing | Five point Likert Scale 1 – 5 |
| | | Training module | Administer and track employee training and development efforts | |
| | | Data mining | Identifying and retaining competent employees through information obtained from the databases | |