ASSESSMENT OF FACTORS HINDERING ADOPTION OF HUMAN RESOURCES INFORMATION SYSTEM IN PUBLIC INSTITUTIONS:
CASE STUDY ARDHI UNIVERSITY
ASSESSMENT OF FACTORS HINDERING ADOPTION OF HUMAN RESOURCES INFORMATION SYSTEM IN PUBLIC INSTITUTIONS: CASE STUDY ARDHI UNIVERSITY

BY

ANNA JOHN MUSHI

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Award of Degree of Masters of Human Resources Management of Mzumbe University

2014
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University a dissertation entitled: *Assessment of Factors Hindering Adoption of Human Resources Information System in Public Institutions: A Case of Ardhi University*, in partial fulfillment of the requirements for the degree of Masters of Human Resources Management of Mzumbe University.

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Accepted for the Campus Board

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I, Anna John Mushi, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature: ____________________________________________

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DEDICATION

This work is dedicated to my lovely husband, Ombeni Kimaro and my sons Bryan and Ethan.
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<tr>
<th>ACRONYMS</th>
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<tr>
<td>ARU</td>
<td>Ardhi University</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CICT</td>
<td>Centre of Information and Communication Technology</td>
</tr>
<tr>
<td>E-HRM</td>
<td>Electronic Human Resource Management</td>
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<tr>
<td>FAP</td>
<td>Faculty of Architecture and Planning</td>
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<td>HR</td>
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<td>HRIS</td>
<td>Human Resource Information System</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<td>Institute of Human Settlements Studies</td>
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<td>SADE</td>
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<td>SPSS</td>
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<td>UCLAS</td>
<td>College of Lands and Architectural Studies</td>
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<tr>
<td>UDSM</td>
<td>University of Dar es Salaam</td>
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ABSTRACT

In the current Information Age, the success of any organization is centered on the extent to which it is able to adopt new changes in Information Technology. Human Resource function is one of the key departments but has been lagging behind in adoption of Technology. This study aimed to make an assessment of factors that hinder the adoption of HRIS at Ardhi University (ARU). The specific objectives were to examine the current systems used to manage human resource, to find out the existing challenges in adopting HRIS and to identify potential processes and areas of HRM for adoption of HRIS at ARU. This study used single case study of ARU which comprised total population of 459 staff members; stratified random sampling, purposive sampling, and convenience sampling were used to select 43 respondents. Data were collected through questionnaires and in-depth interview to complement secondary data.

The findings of this study revealed that, ARU uses manual system to manage human resource. The system is ineffective and inefficient and causes delays in making decisions, errors, inconsistence, and creates room for favoritism. The management commitment and willingness are the major factors that inhibit the adoption of the HRIS at ARU. Further, the cost of adoption and maintenance of the HRIS found to be high compared with the fund the University receives from the Government. The study also revealed that, availability of IT consultants and experts and Organization size are the key drivers towards the adoption of HRIS. Generally, the Management commitment/willingness to adopt HRIS, cost of adoption and maintenance are the major inhibiting factors for HRIS adoption at ARU.

Based on the findings of this study, ARU Management is recommended to make appropriate decision by formulating strategies, policies to acquire HRIS and integrates the use of ICT with the strategies and plans rather than using HRIS for only administrative applications such as payroll and employees’ record keeping in order to effectively and efficiently utilize human capital for a great success of the University.
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CHAPTER ONE
INTRODUCTION

1.1 Introduction
This chapter provides the background information to Human Resource Information System (HRIS) management practices. It further presents the statement of the research problem, research objectives, research questions, and scope, limitations, and significance of the study.

1.2 Background to the Research Problem
Human Resource Information System (HRIS) is defined as a system which is used to acquire, store, manipulate, retrieve and distribute pertinent information about organizations of human resources (Kavanagh et al., 2012). The two important resources in organizations, namely people and information can significantly affect the overall performance of a business; the business success naturally requires the management of both (Martinsons, 1994 and Teo et al., 2007). According to Teo et al. (2007) HRIS combines these two resources, and that proper adoption of the system can drive the organization to a greater success.

Rapid economic growth and increased competition attribute to diverse business environment which has lead to exponential growth of technology application in all areas of business including Human Resource Management (HRM). Growing importance of HRM with increasing organizational size requires the maintenance of employee related data. It also requires generating appropriate Human Resource (HR) reports enforcing organizations for adoption of computer based HRM systems (Tripathi, 2011). HRM is now days becoming strongly dependent on Human resources Information System (HRIS) (Lippert & Swiercz, 2005; Troshani, et al., 2011).
Although HR profession was an early adopter of computing technology, the profession spent last decade playing catch up to other business functions in terms of successful integrating advanced information technology into their processes (Hendrickson, 2003). Studies undertaken in developed countries indicate that HR department has not been left behind in taking note of the current trends in technology. However, in developing countries, the trend of lagging behind was not only noticed in 1990’s but also as recent as beyond 2000. According to Grobler and Warnich (2006), perhaps later than many other business functions, technology has recently come into HRM in a major way.

Directorate of Human Resource Management and Administration at ARU is one of the key directorates that are involved in Human Resources Management (HRM). The directorate is responsible for serving 459 employees. It performs many activities such as human resource planning, recruitment and selection, training and development, performance management and industrial relations among others. However, the digital possibilities have been challenging the traditional ways of delivering HRM services within business and public organizations for more than a decade now (Bondarouk & Ruel, 2009). Most of the public institutions in the country, including ARU manage its Human Resources in traditional manual system, which means the use of hard files and simple computer applications, except for the management of salaries which are monitored centrally through computerized system in the President’s Office Public Service Management.

Many researchers also believe that public institutions delay in adopting HRIS than private sector (Troshani et al., 2011; Kamal, 2006; Themistocleous et al., 2004 and Caudle et al., 1991). Teo et al., 2001 notes that, there has also been some evidence to suggest that HR has been a laggard in adopting Information Technology (IT) but he does not provide reasons for this tendency. Due to the use of manual HR management system, the University experiences several operational and technical problems, including delays, errors and inconsistency in making decisions regarding its human resources.
Almost all HR processes can be done by using HRIS on a daily basis which can benefit the organization in several ways (Ruel et al., 2004). Thus, employees can enter and update data by themselves; this creates more accuracy of data and saves time and costs. Some authors mentioned that important facts of HRIS are effective human resource decision making, reducing process and administration cost, speeding up transaction processing, reduce information errors and improve the tracking and control of human resource actions (Lengnick-Hall & Moritz, 2003). For instance, as an implication of HRIS, the automation of tasks and process reduce the use of resources including financial, material and human). HR costs can be reduced through less use of paper as well as assisting managers in HR process. According to Hendrickson (2003) HRIS benefits an organization in their HR processes by increasing the efficiency and effectiveness and provides self-service HR, which means computer based training and online recruitment.

1.3 Statement of the Problem
Despite the HRIS capabilities to manage HR efficiently and effectively and the exponential technology growth towards advanced information system, ARU continues to manage human resources in a traditional manual system such as keeping, using and retrieving employees’ records in hard files. This practice has caused errors, delays, and inconsistence in making decisions regarding to the Human Resource and staff complains at ARU. The HR activities such as recruitment and selection, training and development, and leave request are also conducted manually in hard files or using simple computer application such as Microsoft Word and Microsoft Excel. Adoption of HRIS at the University will facilitate proper record keeping, reduce the workload and ultimately improve efficiency and effectiveness of the human resource management. Therefore, this study sought to make an assessment of factors that hinder adoption of HRIS at Ardhi University.
1.4 Research Objectives

1.4.1 General Research Objective
The main objective of this research study is to assess the factors hindering adoption of Human Resources Information Systems at ARU.

1.4.2 Specific Objectives
i. To examine the current systems used to manage human resource at ARU
   ii. To determine the existing challenges in adopting HRIS at ARU
   iii. To identify potential processes and areas of HRM for adoption of HRIS

1.4.3 Specific Research Questions
i. What are the current systems used by ARU in managing HR?
   ii. What are the existing challenges in adopting HRIS at ARU?
   iii. What are the key areas in HRM processes need to adopt HRIS?

1.5 Hypothesis
i. Current HR systems used at ARU are inefficient and ineffective.
   ii. ARU Management is unaware and not willing to adopt HRIS.
   iii. All HRM processes and activities at ARU need to use HRIS.
   iv. Management commitment, size of organization, Funds, IT Expert and Organization Culture has negative impact to the institution capability of adopting HRIS.

1.6 Significance of the Study
The emergence of IT in the contemporary world has necessitated all organizations, both government and private organization change rapidly on the way they operate and organize their business functions. These changes have exerted pressure on HR professional to provide expanded services with high quality, fast and seamlessly linked
with other corporate functions. IT provides enabling technologies to assist HR professionals in the delivery of services to meet expectation of employees, managers, customers, suppliers and regulators. Therefore the findings of this study are expected to serve the following functions:

To provide reliable information process that will provide ARU management with necessary knowledge for the adoption and implementation of HRIS.

Other higher learning institutions with similar challenges in the country and elsewhere may benefit from recommendations from this study. The Findings are expected to help policy makers on matters related with use of IT in managing human resource.

i. The findings are envisaged to inform the government on the factors hindering successful implementation of HRIS in its institutions, which results in poor management of human resources.

ii. Scholars in the field of human resources management and information technology will benefit from finding of this study by getting more information about adoption of HRIS.

Also, the report of this study may be used as reference by researchers who may be interested in further exploration on this subject matter.

1.7 Scope of the Study

The study was undertaken at Ardhi University, which is a public higher learning Institution located in Kinondoni Municipality in Dar es Salaam region. Only selected sample size of ARU staff was used to collect required information for the study. ARU was selected because researcher is an employee of the University; therefore it was easy for the researcher to access required information.

1.8 Limitation of the Research

Ardhi University is a higher learning institution; therefore, the findings may not be representative of all public institutions delivering other type services in a different
context. Secondly, this research did not examine the extent to which the identified factors affect HRIS adoption and each other. Further qualitative and quantitative research need to be carried out in order to address this limitation. Additionally, this study has ignored the transition from HRIS adoption to their complete assimilation and the extent to which advocated benefits become materialized during HRIS usage; this is another limitation of this study. Further work is also required in addressing HRIS adoption in private sector organizations where research is currently lacking and where HRIS adoption configurations may be different from those in the public sector.

1.9 Organization of the Study
The study assesses factors hindering the adoption of HRIS at Ardhi University. Chapter One is an introductory chapter and it presents the background to the study topic, statement of the problem, research objectives, study hypothesis, the study limitations and the scope of the study. The chapter further presents the significance of the study justifying the importance of conducting the research and finally the organization of the study.

Chapter Two presents literature review, comprising of the theoretical literature review, analysis of the theories or concepts about the study topic, empirical research and the conceptual framework. Chapter Three covers the research methodology comprising of the research design, description of the research area, study population, sample size, sampling techniques, data collection methods applied and the description of the data analysis process.

Chapter Four presents the key study findings; analysis and discussion of the findings and finally Chapter Five present the summary of the study, conclusion and recommendations
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter is a foundation on which the research is built. The purpose of the study is to assess the factors hindering adoption of HRIS at ARU and to identify strategies that could be used to adopt the HRIS. This chapter presents an overview of the study, theoretical framework, and empirical studies and provide conceptual framework.

Literature review involves reviewing various studies and literatures relevant to the problem being investigated within the framework of the theory structure. The general orientation of this literature review is intended to appreciate the contribution of the previous work in a relevant area which in turn serves as the study guidelines for the research. The chapter reviews factors from literature that seemed to hinder adoption of HRIS such as Cost of Adoption and Maintenance, Culture of Institutions, Availability of Consultants and IT experts, Management willingness and Organization size.

2.2 Conceptual Definitions
2.2.1 Human Resources Information Systems
The term HRIS is referred to with different terms which are used interchangeably; for instance, e-HRM, HR intranet, web-based HR; computer based human resource management systems, virtual HR and HR portals. Several authors argued about internet or web-based channels as a venture of HRIS (Lengnick-Hall & Mortiz, 2003; Ruel, et al., 2004). Originally, DeSanctis (1986) defined the term HRIS as a specialized information system within the traditional functional areas of the organization, designed to support the planning, administration, and strategic decision making. However, several authors argued that this definition narrows the scope to the HR position and neglects the adoption and deployment of the information systems in the corporate organization (Ruel et al., 2004). Kavanagh et al. (2012) mentioned that, although HRIS includes hardware and software, it also includes people, forms, policies and procedures, and data. Recently,
the focus of HRIS has shifted to more strategic applications of an organization like recruitment, performance and compensation management, self service technology (Bell et al., 2006; Lengnick-Hall & Moritz, 2003; and Panayotopoulou et al., 2007).

Some authors preferred to use the term e-HRM over HRIS (Strohemeier, 2007), several authors agreed that a line cannot be drawn between IT-based information system for HR and internet based HR applications as these two are basically doing similar jobs (Ruel et al., 2011). Thus, Ruel et al. (2011) defines HRIS as “IT-based information systems and applications either stand alone or networked, for human resources management purpose, be it for facilitating HR practices, processes and strategies”.

Consequently, for the purpose of this study the researcher assumes HRIS includes all kinds of information system (i.e. internet, intranet, enterprise resource planning) that assist the HRM process and policies (i.e. recruitment, training, compensation, human resource planning and performance appraisal).

2.2.2 Human Resource Management
French (1990), defines Human resources management as a managerial philosophy, policies, procedures, and practices related to the effective management of people for purposes of facilitating the achievement of results in the work organization. With almost same wording (Glueck, 1982) defines HRM as the set of management activities intended to influence the effective utilization of human resources in the performance of work organizations. From these definitions, the scope of human resources has being evolving from clerk job of hiring and firing to strategic responsibility in order to meet global competition and other market demands. In more advanced and competitive market, the advanced human resource or strategic human resources is defined as a consciously deliberate attempts by management to implement HRM as a single and coherent function in ways that complement overall organizational strategy or otherwise sustain or improve organizational performance. Schuler (1992) defines Strategic HRM as concerns
to ensure that HRM is fully integrated with strategic needs of the firm. HR policies cohere both across policy areas and hierarchies and HR practices are adjusted, accepted and used by line managers and employees as part of their everyday work.

For the purpose of this study HRM includes policies, procedures, and processes which are intended to facilitate the effective utilization of people in the performance of organizations.

2.2.3 Organizational Culture
Organizational or corporate culture is the pattern of values, norms, beliefs, attitudes and assumptions that may not have been articulated but shape the ways in which people behave and things get done (Armstrong, 2006). He further argued that, values refer to what is believed to be important about how people and the organizations behave. Gilley et al. (2003) suggest that, culture define organization degree of Innovation and Risk Taking, attention to details, outcome and process orientation, people orientation and aggressiveness. For the purpose of this study culture includes the way organization operates, innovates, and receives change.

2.3 Background of HRM and HRIS
HRM is a modern term referring to the occupation of managing people in work places; personnel management is an outdated term for this occupation. In the literature, the profession of personnel management dates back to 1912, when the first professional personnel association, the Boston Manager’s Association was founded in USA. Human resources management profession dates back in 1946 in USA, Germany, and South Africa (Ngirwa, 2005).

The term Human Resource Management had a major evolution after 1850. According to Gupta (2010), various studies were released and many experiments were conducted during this period; this gave HRM completely new meaning and importance.
Frederick W. Taylor (1857 and 1911) introduced principles of scientific management. These led to the evolution of scientific human resource management approach which was involved in Worker’s training, maintaining wage uniformity and focus on attaining better productivity. Douglas McGregor Theory X and Theory Y (1960) and Abraham Maslow’s Theory of Hierarchy of needs (1954) also had led to the revolution of administrative and personnel management.

Between 1945 and 1960, Organizations began to develop formal processes for employee selection and development. Although the period did not result into use of HRIS, to some extent the employees, and files become greatly complex and set a stage for an explosion of changes that began in 1960s (Kavanaugh et al., 1990). HR was integrated into core business functions such as that of government and other non-government organizations. The requirement for employee information to various regulatory authorities has necessitated the adaptation of IT in management of HR. In the 1960’s and 1970’s, large companies felt a need to centralize their personnel data in large part to facilitate record keeping and meet regulatory needs. Programs were written on large mainframe computers that acted as a central data repository with little transactional processing, usually only for payroll (Kavanaugh et al., 1990).

The view that IT is becoming increasingly important in organization is now widely appreciated in various literatures (Allen and Scott- Morton, 1994; Porter and Miller, 1985; Grindley, 1991 and Mcfarlan, 1984). Lucas (1994) predicted the future where organization regardless of size, mission and or role will critically depend on IT in almost every functional level. The quick information flow enabled by expertise in technology will give rise to organizational redesign as fewer managers and clerical staff will be required for executive and administrative decision making (Burrow, 1994).

If IT is properly acquired and managed, it is an efficient strategic device which can sustain and improve the competitive advantage of a commercial or any other
organization (Porter, 1985). This is perceived as a crucial device to business survival as organizations are faced with the choice to automate their functionalities or liquidate.

The Human Resource Information System (HRIS), also known as a Human Resource Management System (HRMS), became prevalent in the 1980’s with the popularity of Enterprise Resource Management (ERP) applications and the move from the mainframe systems to client server technology. This trend was based on a new school of thinking, the one that saw the transformation of transactions into business processes and transformation of data into information. HR information can empower companies with “intelligence” enabling management to make timely and more informed decisions.

In the last two decades, researchers have started to show interest in the field of HRIS although they focused more on areas such as predominance of HRIS (Martinsons, 1994), conditions for successful usages (Haines & Petit, 1997), use of HRIS (Ball, 2001), current usages patterns (Hussain et al., 2007), areas in HRIS implementation (Ngai & Wat, 2006; Razali & Vrontis, 2010; Tansley & Newell, 2007), and achieving competitive advantage (Browning et al., 2009). Current studies have investigated HRIS adoption determinants in Singapore and Australia (Teo et al., 2007; Troshani et al., 2011). However, these authors agree that, there is a small number of researches in the area of adoption of HRIS and there is needed to investigate the extent to which these factors affect the adoption of the system. The number of institutions adopting HRIS is even smaller in developing countries like Tanzania.

Software vendors such as Oracle, PeopleSoft, and SAP included some flavor of human resource management in their suite of applications providing their users with a single, holistic view of their workforce. In 1980’s there was a shortage of skilled workers, especially in the technology sector. By the time, HRIS systems included a host of feature sets and functional capabilities aimed at attracting, retaining and properly compensating the workforce. By the year 2000, the human resource software industry witnessed the
growth of HRIS grow which included recruitment, benefits management, time management, payroll, compensation management, learning management, expense reporting and reimbursements, and performance management. Self-service applications built on top of the underlining data empowered employees to manage their own data and make timely changes.

Today HRIS is used to make HR strategic applications of an organization like recruitment, performance and compensation management (Bell et al., 2006). The decision to use IT in delivering public service is inevitable in order to improve efficiency, rationalization and restructuring (Curie & Bryson, 1995).

2.4 HRIS in Developing Countries

According to Teffarra’s article (2004) ‘Knowledge creation and dissemination in African Universities with special reference to ICT’ published in African Universities in the 21st Century book of CODESTRIA, the scope and dimension of communicating and advancing knowledge have evolved remarkably. This is because development in the use of Information and Communications Technology (ICT) in the developed world has intensified. African Universities as major consumers, brokers, and producers of the knowledge industry in the continent, bear the witness to the unfolding events and developments. In the higher education sector, the adoption and use of ICT services is realized through the extent to which ICT supports and fosters innovative research learning and teaching in addition to supporting administrative processes in these institutions.

In Tanzania the implementation of computer based system started in 1965 when the so called second generation computer was installed in the Ministry of Finance. It appears that before 1965 there were no electronic computers in Tanzania (Mbamba, 2003). Later on computers were installed in government agencies and major corporations. The growth of usage of computers in Tanzania continued with trade liberalization policy in
mid of 1980’s (Baker, 1993). However, most of these computers were inadequately used and consequently failed to achieve desired expectations (Mgaya, 1999).

2.5 Importance of HRIS
Human Resources are the most valuable asset in organization, People working individually and collectively contribute to the achievement of organization objectives (Armstrong, 2006). Also, institutions invest a lot on their employees in terms of recruitment, induction and training, development and maintenance; therefore it is very important to manage human resource properly in order to effectively and efficiently achieve the organization goals.

Researchers agrees that HRIS has capabilities in shaping the integration between human Resource Management and Information Technology by supporting administration (Teo et al., 2007), planning for human resources (Hussain et al., 2007) and strategic decision making (Johnson et al., 1986). Scholars have also agreed on the fact that the HRIS supports most of HR applications including Record Keeping (Ball, 2011), Recruitment and Selection (Chapman and Webster, 2003), Compensation, (Kathawongs, 2004) and Training and Development (Chan & Ngai, 2007).

Almost all HR processes can be done through HRIS on a daily basis which can benefit the organization in several ways (Ruel et al., 2004). For instance, as an implication of HRIS the automation of tasks and process reduce the use of resources (financial, material and human). Reduction of HR costs including less usage of paper as well as to assist managers in HR process are some of the examples of reduction of resource usages. According to Hendrickson (2003), HRIS benefits an organization in their HR processes by increasing the efficiency and effectiveness and provides self-service HR (i.e. computer based training, online recruitment). In addition, HRIS produces data as a by-product and has frontend web applications which can transfer part of HR data management to employees and line-managers (Ruel et al., 2011).
Furthermore, Aggarwal and Kapoor (2012) mentioned that HRIS not only helps the management and HR department but also assists the employees in several ways. HRIS is able to increase the overall decision making efficiency for the management of an organization. It helps the HR department to possess a single data base for all employees in the company with all necessary information and opportunities of different reports, HRIS eliminates the paper forms that are much slower and has a higher likelihood of errors caused by human flaws. For the employees, HRIS provides the possibility of independent access to data, which often means working in one software window as well as keeping automatic tracking and reminder to business obligations and events. In some organizations, it also lets the employees attend internal training courses via the web in order to develop their personal skills and knowledge. As a result, it encourages employees to make decisions and initiatives on the basis of information obtained in the HRIS system.

In a nutshell, HRIS is a computerized system that assists the process of information related to human resource management and has become a key element to all organizations. Thus, HRIS is important in administrative levels, such as operational assistance in collecting, storing and preparing data for reports, simplifying and accelerating the processes and controlling the available data, reducing labor costs for human resource departments, and providing timely and diverse information to the management of the organization for which it is possible to make quality strategic decisions related to human capital (Aggarwal & Kapoor, 2012).

2.6 Factors Affecting HRIS Adoption

The effectiveness and efficiency of HR department in public institutions to undertake its critical activities are depended upon the adoption of IT technology. However, the adoption and implementation has been characterized by many shortcomings due to a number of limitations, such as the cost of adoption and maintenance, culture of
institutions, availability of consultants and IT experts, management willingness and organization size.

The studies indicate that factors hindering adoption of HRIS includes, culture, funds, management support, size, technology infrastructure (Kinanga, R. 2012, Troshani et al, 2011 and Ashbaugh and Miranda, 2002). Troshani et al, (2011) pointed out that the two main factors of HRIS adoption in public organizations are the need to demonstrate the benefits that HRIS can introduce to their organizations and management commitment; this is crucial for both supporting adoption initiatives and ensuring that resources are made available for sustaining adoption.

2.6.1 Cost of Adoption and Maintenance
Fund to buy hardware and software license and maintenance of HRIS is a crucial factor for the adoption. Adopting HRIS can be challenging because it can be costly and it can take long periods of time before espouse pre-adoption benefits become available after HRIS are fully assimilated (Ashbaugh & Miranda, 2002). In particular, HRIS adoption in the public sector may be even more challenging than the private sector for several reasons.

Public sector organizations have different underlying goals to those operating in the private sector, in that the former may have multiple intangible goals such as health and education) unlike the latter that is typically driven by economic viability considerations (Kamal, 2006). Also, due to budget timing restrictions, public sector organizations may be subject to constraints of budgeting cycles which may be dictated by political influences or periodic changes in political priorities (Caudle et al., 1991; Themistocleous et al., 2004).

Ziederman and Arberekht (1995) observed that higher education the world over is said to be in crisis that extend from financial to concerns about quality, relevance, equity and
specific missions of institutions. However, among these problems, the financial crisis appears to be of particular concerns. Boyer (1993) observed that funding in higher education was at the heart of the world crisis. As revealed in a recent study by “the financial crisis in education in most countries is much deeper than macro statics reveal; and is not going to disappear soon especially in the developing counties.

Ayoo (2002) observed that one of the greatest challenges facing East African Universities currently is finance or lack of it. This resulted in most universities inability to implement most of the projects proposed. There is a critical need to identify possible sources of funds to supplement the dwindling support from the respective governments and the other formal channels on how to get access to their funding.

2.6.2 Culture of Organization

Culture plays a strong role in organizations. The culture of an organization dictates how it operates, innovates, and receives change. It influences a company’s strategic plan, employee relations, and corporate image. Culture affects individual behaviour hence organizational culture (French & Bell, 1994). However, culture becomes hostile to the change and to people who champion new ways of doing thing and makes it difficult for a subordinate employee to introduce new ideas (Hiriyappa, 2009). It is difficult to change or eliminate organizational culture because it dictates “the way things are done around here”. Due to a bureaucratic culture, public sector organizations generally introduce innovations reactively. That is, they wait for evidence to become available to justify adoption decisions.

2.6.3 Availability of Consultants and IT Expert

A supporting organizational setting, including a skilled workforce, can be critical for successful innovation adoption (Lin, 2006). HRIS expertise or human capability is significant factors influencing adoption of HRIS. HRIS was found as an important factor in the adoption of new technologies in a study by Kwon and Zmud (1987). Therefore, successful adoption of HRIS requires availability of skilled HRIS professionals in the
organization because if the users lack understanding of the system features can be a major obstacle in HRIS adoption. Troshani et al., (2011) indicated that the training was needed for all user levels such as operational and strategic levels to increase their knowledge and skills in using the system effectively.

2.6.4 Management Support/ Commitment

Top management support shows influencing action on adoption of HRIS. Findings from Yang et al., (2007) shows that Chief Executive Officer’s (CEO) attitude and interest towards information communication technology (ICT) are important to promote ICT adoption. However, Teo et al. (2007) points that, beside top management support to adopt a system in the organizations, employee engagement is also needed which is also greatly influenced by the management commitment. Most studies showed that management commitment has a positive influence on HRIS or IT adoption (Teo et al., 2007; Troshani et al., 2011; and Yang et al., 2007).

The greater the support from top management, the easier it will be for adopting organizations to overcome difficulties encountered during adoption (Premkumar & Ramamurthy, 1995; and Silva et al., 2007).

2.6.5 Organization Size

Organization with large numbers of employees can use organization size to support their business case for adopting HRIS because potential benefits can be spread across large user bases. However, organizational size can also increase complexity. That is, “the bigger the organization, the more complexity” which can, in turn, adversely affect the flexibility with which HRIS can be adopted. According to Hendrick, (2003) all HRIS are not created equally and the need to be HRIS usage depends on the size of the firm. Additionally, Troshani et al., (2011) says the organization size is an important factor in successful innovation adoption.
2.8 Research Gap

This study is performed to investigate and identify factors hindering implementation of HRIS in public institutions within the specific context of Ardhi University in Tanzania. Studies have been conducted in developed countries where business context and challenges differ with those in developing countries. The studies in the developed countries revealed that management commitment and the need to demonstrate the benefits that HRIS can introduce to their organizations are crucial for both supporting adoption in Australia Public sector Troshani et al., (2011) and Yang et al., (2007). Another study was conducted in Singapore and it was found that cost of adoption and availability of IT expert are the main inhibitors of HRIS adoption (Teo et al., 2007). Furthermore, studies conducted in Japan on successful adoption of HRIS, revealed that organization size and management commitment had great influence on adopting HRIS. Therefore, this study set out to assessing factors hindering adoption of HRIS in public sector of developing countries, the area which has not been studied as shown in the reviewed literature above.
2.7 Conceptual Framework

Figure 2.7 Conceptual Frame of Factors HIRS Facilitating Adoption

Source: Researcher, 2014

Conceptual framework shows the relationship of independent and dependent variables. Independent variables in this study are availability of funds, management
commitment/support, organization culture, availability of IT expert/consultants and organization size and the dependent variable is HRIS Adoption. Availability of funds for HRIS adoption depends on amount of funds released to government institution and internal generated income. Management commitment and support to strategize and set of policies to adopt, implement and maintain HRIS also facilitates HRIS adoption. Availability of IT expert and Consultant, Organization Culture which depend highly on organization Change management Strategies and Size of organization also influence organization HRIS Adoption. As organizational size increases, complexity in HR management also increases. This study investigated these factors as challenges that hinder HRIS adoption at Ardhi University.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter presents a brief description on the methodological approach carried out in this study. Kothari (2004) defines research Methodology as a systematic way of solving the research problem that involves sampling design, data collection methods, data analysis, interpretations, conclusions and recommendations, report writing and presentation.

3.2 Research Design
A research design is an arrangement of conditions for collection and analysis of data in a manner that aims to bring relevance to the research purpose and economy in the research product. It is a conceptual structure within which the research is conducted, it constitute the blue print for the collection, measurement and analysis of data (Aaker, Kumar & Day, 2002 and Kothari, 2004). It is the detailed plan of work to be done to achieve research objectives (Adam & Kamuzora, 2008). In this research a case study was used as a research design which is more dominant in social science research.

Case study research design specified the case where data was collected for the study and single case was studied. The design provided in-depth and exhaustive analysis of the factors hindering HRIS adoption at ARU and it saved both time and costs.

3.3 Area of Study
According to Selltiz (1959), a research design is an arrangement of conditions for collections and analysis of data in a manner that aims to combine relevance to the research purpose. The study was conducted at ARU. The choice of this office was mainly influenced by the researcher's accessibility to data as an employee of ARU at the Directorate of Human Resources Management and Administration. Ardhi University was
chosen through a purposive sampling because it is among the new Public Universities in Tanzania and that it has not adopted the HRIS.

3.4. Study Population
Population is the group of individual who have one or more common characteristics that are of interest to the researcher (Adam & Kamuzora, 2008). The specification of the population to which the enquiry will be addressed affects decisions that researchers must make both about sampling and resources (Kothari, 2004). In this study the population was staff employed at ARU. Since the study was conducted at ARU located in Dar es Salaam, the population involved all employees (Academic and Administrative staff) of the University, with a total number of 459.

3.5. Sample Size and Sampling Techniques
3.5.1. Sample Size
According to Babbie (1992), the sample is a segment of population in which researcher is interested in gaining information and drawing conclusion. In selecting sample size, researchers are advised to put into consideration important aspects namely the availability of population, nature of universe, methods sampling to be used, tools to be used in collecting data and the financial resources available for the facilitation of the specific study (Kothari, 2004).

The sample for this study constituted a total of 43 individuals from various departments at Ardhi University. The said sample size was derived according to information required by the study; the Management, HRM Staff and CICT were the key respondent and were expected to give information needed for this study. The sample size was therefore 30% of the population while other staff members were represented by 5% of the population. It was intended to assess the respondents’ awareness of the HRIS and to understand their perception and feeling about the current HRM systems.
Table 3.1: Sample Distribution
N=43

<table>
<thead>
<tr>
<th>Type of respondents</th>
<th>Total No. of Population</th>
<th>Number of respondents</th>
<th>Method Used</th>
<th>Type of Information required from population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management and heads of departments</td>
<td>37</td>
<td>11</td>
<td>Stratified Random Sampling Purposive Sampling</td>
<td>HRIS awareness, current system and its challenges, is HRIS in their priority list, are they willing to allocate fund to adopt HRIS</td>
</tr>
<tr>
<td>HRM Staff</td>
<td>20</td>
<td>6</td>
<td>Stratified Random Sampling and Convenience Sampling</td>
<td>HRIS awareness, current system and its challenges, knowledge and skills to use HRIS, Potential areas for HRIS adoption and willingness to adopt HRIS, Will HRM staff require special training on new HRIS</td>
</tr>
<tr>
<td>CICT staff</td>
<td>26</td>
<td>8</td>
<td>Stratified Random Sampling and Convenience Sampling</td>
<td>Does CICT have enough and qualified staff to manage new HRIS system, HRIS awareness, current system and its challenges, knowledge and skills to use HRIS, Potential areas for HRIS adoption and willingness to adopt HRIS provides backstopping.</td>
</tr>
<tr>
<td>Other Staff</td>
<td>376</td>
<td>18</td>
<td>Stratified Random Sampling and Convenience Sampling</td>
<td>Awareness on Problems experienced by the Current HRM system</td>
</tr>
<tr>
<td>Total</td>
<td>459</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Data, 2014
3.5.2. Sampling Techniques

Selecting units of population derives the composition of the sample. The manner in which the sample units are selected is very important. Sampling is a procedure of selecting a proper subset of the element from the full population so that the subset can be used to make the inference to the population as a whole (Charles, 1992). Moreover, sampling enables generalization to be made on a large population. In this study stratified random sampling, purposive sampling and convenience sampling were used. In stratified random sampling the staff was categorized into four groups, namely the Top Management, HRM staff, Centre of Information and Communication Technology staff (CICT) and other staff members. In the second stage the Top Management Staff were selected on purposive sampling and five of them were interviewed. The group of CICT, HR and other staff were selected depending on their availability and willingness to fill questionnaire distributed; this is referred to as Convenience Sampling.

3.5.4 Stratified Sampling

Stratified Sampling technique divide population into different groups and layers with same characteristics in order to ensure representation of all members of the population (Adam and Kamuzora 2008). In this study the population of Ardhi University with 459 members of staff was divided into four strata in order to ensure true representation of population. The strata were formed into Top Management, HR Staff, CICT staff and other staff depending on the information required in this study. The advantage of this sampling technique is to ensure more representation and accurate samples because a population comprises of distinct groups.

3.5.3 Judgmental/Purposive Sampling Method

Purposive sampling is the sampling technique where the respondents are chosen based on the researcher’s judgment that they have desirable characteristics and variables to be studied (Kothari, 2004). According to Adam and Kamuzora (2008), purposive sampling is less expensive and it is a quick method of selecting a sample, because it is not based
upon the probability model, hence the researcher does not have a real basis for making inferences to a large population. Through purposive sampling, the researcher purposively select a particular units of the universe for constituting a sample on the basis that the small mass selected out of a huge one that will be a typical representative of the whole (Kothari, 2004).

Purposive sampling was used to select respondent from the top management staff. Eleven staff were purposely selected because researcher believed that they had appropriate characteristics such as having information, insight, experiences and understanding of problem of this study; these were Deputy Vice Chancellor, Planning, Finance and Administration, Deputy Vice Chancellor Academic Affairs, Bursar, Director of Centre of Information and Communication Centre, Director of Human resource Management and Administration and Director of Development and Planning. Also, the Head of General Administration, the Head of department of Human Resource Planning and Policies, the Head of the department of Investment and Fundraising, and the Head of Revenue and Expenditure department.

The Top Management was the key informant of this study. This is because, in general, top management is the one that develops policies, allocate budget and it is a key driver in any organization change. Thus, they were purposively selected and 6 of them were given questionnaires to fill while 5 of them were interviewed using semi-structured interview questions. Since researcher is also a staff member at Ardhi University, it was easy to get access to these key respondents.

3.5.6 Convenience Sampling
Convenience Sampling involves selecting respondents primarily on the basis of their availability and willingness to respond (Shaughnessy et al., 2000). With a convenience sample, minimal efforts were taken to ensure the sample was representative of the population. Convenience samples are appropriate for limited populations and
exploratory research (Stevens 1996). It also saves money and time given that the researcher has very limited time to complete this study. This technique of sampling was used in this research to select 8 CICT staff, 6 HR staff and 18 from other staff. The sampling error of this method was minimized by grouping respondents into four strata at the initial stage of sampling; which largely contributed by selecting homogenous respondents.

3.6 Sources of Data
To obtain the required information for the study, the researcher used both primary and secondary data sources.

3.6.1 Primary Data Source
These are those data collected afresh and for the first time and thus happen to be original in character. Also primary data can be expressed as the first information collected through various methods such as questionnaires and interviews. The primary source of data in this study was ARU employees.

3.6.2 Secondary Data Source
Secondary data are those data which have been collected by someone else and have already passed through statistical processes (Kothari, 1990). Gerkowitz (1994) describes secondary data as the facts and figures that have already been recorded before the project at hand. In this study the secondary data was obtained from ARU records such as files and various published and unpublished reports. Other secondary data sources for this study included research reports/papers, newspapers, magazines, different surveys and presentations.
3.7 Data Collection and Data Analysis

3.7.1 Data collection Techniques/ Instruments
In order to obtain information related to the variables, three main methods of data collection were used as described below:

3.7.1.1 Questionnaire
Questionnaire is a written set of questions that can be mailed or passed out to subjects, Dillon et al. (1990) defines a questionnaire as a formal way, and the questions are designed to elicit the desired information. In this study closed questions questionnaire was distributed to selected employees at ARU. A total of 45 questionnaires were distributed to CICT Staff, HR Staff and other staff and 38 were returned to the researcher. The respondents were required to present their views and opinions regarding their awareness of HRIS, factors hindering adoption of HRIS and management strategies which may help ARU to overcome the challenges.

3.7.1.2 Interview
An interview is conducted in order to collect qualitative data which the questionnaire could otherwise not be able to collect especially from the top management and head of department in order to get more insight to the problem at hand by allowing flexibility, wide coverage and completeness (Adam & Kamuzora, 2008). In this method, semi structured interview was used. The advantage of using this method is that, it conforms to the qualitative approach and facilitates the required level of interaction between the researcher and respondents (Bogdan & Bulklen, 1992). The technique enabled the researcher to enter into other person’s view/world to understand his/her inner perspective and its flexibility enables the researcher to capture as much and as rich information as possible.
Five (5) key persons in the top management including Deputy Vice Chancellor, Planning, Finance and Administration, Bursar, Director of Centre of Information and Communication Centre, Director of Human resource Management and Administration and the Head of General Administration were interviewed with semi-structured interview guide to get in depth information. An interview guideline was prepared in order to have consistency questions to interviewees and more questions were asked accordingly. The interview collected information on the awareness of HRIS at Ardhi University, analysis of the current HR System and the factors hindering adoption of HRIS. The interview also examined whether there is any strategies to adopt HRIS at ARU.

3.7.1.3 Documentary Source

Documentary source of data is a collection of information on the research subject from relevant available documents. It includes various policy and procedures documents, by-laws, circulars, directives, files, reports, research papers, seminar presentations, articles and Journals (Adam & Kamuzora 2008). Various documents from Mzumbe Library, Ardhi University Library and the University of Dar es salaam Library were reviewed.

In this study researcher made review of various documentaries such as Ardhi University Research papers, Corporate Plan, 2009/10 -2018/19 which provides roadmap for the University mission and Vision, Ardhi University CICT Policy, 2010, which provides strategies, procedures for ICT at ARU. Various reports were also reviewed such as financial report for various years, reports of different committee relating to HR matters. Other documents used in this study were World Bank Report (2010), various fact and figure reports which provide annual report to the University.

Moreover, The University Human Resources Policies were also reviewed to understand procedures and regulation governing HR function at the University. University Charter and other government policies were reviewed to get insight of this study.
3.7.2 Methods of Data Analysis and Interpretation

Data analysis is the computation of certain measures along with searching for patterns of relationship that exist among data group (Kothari, 2004). In this study, data were analyzed through qualitative and quantitative methods because the study involved both qualitative and quantitative data. Data were collected using structured questionnaires and interviews. The data were presented in a descriptive tables and figures with the aid of data analysis instrument called Statistical Package for Social Sciences version 20.0 (SPSS) and Microsoft Office Excel 2010.
CHAPTER FOUR

PRESENTATION OF FINDINGS AND DISCUSSION

4.1 Introduction
This chapter presents, analyses, interprets and discusses the collected data. The data analysis is based on the specific study objectives, research questions and hypothesis of this study. The findings in this chapter are presented under following sub - headings; demographic characteristics of the respondents, analysis of current system used in managing human resource at Ardhi University, awareness of management and staff at Ardhi University to adopt HRIS, key areas in HRM processes that need to adopt HRIS, and existing challenges that hinder adoption of HRIS at Ardhi University. Also the hypotheses which were presumed were tested and compared with the findings of this study.

4.2 Demographic Characteristics of the Respondents
This study involved a total of 43 respondents whereby 25(58%) were males and 18 (42%) females. Majority of the respondents 15 (41.8%) were between age 31-40 years, 12 (27.9%) were between 51-60 years, 10 (23.2%) were between 41-50 years and 6 (13.9%) were between 21-30 years. Members of academic staff were 60% of the respondents while 40% were administrative and technical staff. Age and cadre of the respondents did not have significant effect on the outcome of the study.

Regarding the levels of Education of respondents, 88% of had Advanced Diploma, Bachelor Degree, Master Degree and PhDs while 12% were at Secondary level and Ordinary Diploma levels. The findings reveal that respondents with Secondary and Ordinary level education were not aware of the HRIS, although they had ideas of other computerized systems.
All respondents were of the agreement that, the adoption of IT in operating business is inevitable as indicated in these findings. In spite of respondents’ diversity in terms of age, gender, education level and experience at ARU, they all agreed that HRIS adoption is crucial.

4.3 Analysis of the Current Human Resource System

The first objective of this study is to analyze current HR system used at ARU to manage employees. The study focused on the questions asked under the following headings: Overview of the Directorate of Human Resource Management and Administration, how the day to day activities and processes are conducted in the Directorate, challenges and benefits of current HR System, efficient and effectiveness of the system and other computerized systems used at ARU in other functions. The Findings are presented below

4.3.1 Overview of Directorate of HRM

The administration of human resource management (HRM) matters is handled by the Deputy Vice Chancellor Planning, Finance and Administration through the office of the Directorate of Human Resource Management and Administration. All employees are managed centrally by the Directorate of Human Resource and Administration which has seven employees, including Director of HRM, the Head of Department and other five administrative officers. Other staff in this Directorate includes administrative officers, secretaries, record officers and clerks and office attendants attached to different Schools, Units across the University.

Furthermore, the Ardhi University has 459 employees, 18 academic Units, 6 Schools, 1 Institute and 3 Centers. The University planned to increase student enrollment to 10,000 by 2015 and staff to 720 by 2015 (ARU Corporate Plan, 2009/10-2018/19). The current number of students is 3,562. The ratio of academic staff to student is 1:14 while that of administrative/technical staff to students is 1:16. The University embarks on increasing students’ enrolment to respond to the national policies. However, it is imperative to
increase the number of staff in order to improve the current ratio of academic staff to students. Thus, from time to time, the University has been reviewing and determining the optimal staffing levels for its academic and administrative and technical staff.

The findings revealed that, like most of public institutions, Ardhi University use manual system to manage its human capital. Recruitment and selection, performance appraisals, training and development and other HR processes such as leave request, benefit and compensation are also handled in the files and simple computer applications.

University records are stored in the registries which fall under Directorate of HRM and Administration. There are two categories of registries, namely Open and Confidential Registries. In these registries records are stored in hard files and every staff has personal file where his records are stored and retrieved when needed. Both Registries has total of six staff and they manage about 3,500 files out of which 1,500 are staff personal files.

Recruitment and Selection, Performance Appraisals, Training and Development and other HR processes such as leave request, benefit and compensation are also handled in the files and simple computer applications. Staffs have to make any of their requests through letter or the provided special forms; the requests are filed accordingly and start moving manually to the authorizing Officers. Once the process is completed the staff has to be informed by letter or get copy of the approved forms.

The process is tedious with many human errors, inconsistence, lack transparency, delays and sometimes it cost University in terms of human resource and other material resources. This has caused complaints among staff about the delays, errors and inconsistencies of the Directorate of HRM at the University.

During the interview, it was revealed that Registry staff use computer programs such as Microsoft Excel to locate files from the cabinets. Likewise human resource officers use
computer to draft correspondences and generate reports; they mainly refer information from the hard files.

There is no sophisticated software to run their day to day activities and processes. Thus, it was also revealed that, the management of staff is becoming more complex and these complexities have resulted into challenges in managing HR at the University. These challenges are expected to increase with the increase of staff at the University as planned in ARU Corporate Plan, 2009/10-2018/19.

4.3.2 Challenges of the Current HR system at ARU
Respondents were asked about the challenges of the current system used at the University to manage Human Resource. All 38 respondents agreed that the current HR system has challenges which include human errors, delays, poor decision making, inconsistencies, biasness, favouritism, high cost, tediousness, corruption and lack transparency (Table 4.5). Furthermore, the interview with the Top Management revealed the same finding where all agreed with the challenges mentioned by other respondents.

In analyzing challenges facing current HR system at ARU, 89% of the respondents agreed that, the current system caused errors in decisions making. It is even hard to tell whether errors occur by accident, negligence or maliciously. One of the respondents responded; ‘recently we employed staff with no required qualification…it is difficult to shortlist qualified staff, especially where there is big number of candidates applying for the post. Sometimes we receive more than two hundred application for one post’. Although it was revealed that when error occurs the responsible staff gets punished for negligence. The tediousness and complexity of handling all these staff manually is mainly blamed for errors made by respective officers. The complexity of handling big number of employees was also pointed by different scholars as a main reason for setting stage to use HRIS in managing employees 1960’s (Kavanaugh, et al., 1990).
Furthermore, 87% of the respondents agreed that delay in making decision was a challenge in the current HR Management system. Delays in making decisions mainly occurs when files are misplaced or needed information to support the decisions are to be obtained/referred from different sources such as closed files. Another reason for delay could be caused by manual movement of files from one office to another. One of the respondents said; “sometimes files are misplaced and it may take up to three days to locate it and other files get lost without trace and in this case the University lost its records every day. In other worse situations unfaithful staff temper with records by removing pages or records from the files.”

Table 4.1: Response to the Analysis of the Challenges Facing Current HR Systems at Ardhi University

N=38 respondents

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Frequency</th>
<th>Frequency in Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delays</td>
<td>33</td>
<td>87%</td>
</tr>
<tr>
<td>Errors</td>
<td>34</td>
<td>89%</td>
</tr>
<tr>
<td>Inconsistence</td>
<td>20</td>
<td>53%</td>
</tr>
<tr>
<td>Cost</td>
<td>9</td>
<td>24%</td>
</tr>
<tr>
<td>Poor decision making</td>
<td>31</td>
<td>82%</td>
</tr>
<tr>
<td>Biasness</td>
<td>11</td>
<td>29%</td>
</tr>
<tr>
<td>Corruption</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>Favouritism</td>
<td>9</td>
<td>24%</td>
</tr>
<tr>
<td>Lack of transparency</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Tediousness</td>
<td>6</td>
<td>16%</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Field data, 2014

Additionally, 53% of the respondents were of the view that, inconsistence in making decision has caused many complaints across the University. The University management
decided to form a committee in the year 2013 to handle all complaints and about 50% of the complaints were caused by inconsistence in making decisions. This is mainly due to lack to proper records for reference. Some of the respondents were also the victims of inconsistence in issues related to their promotions; sometimes date of promotion start upon the submission of certificate or on the date of graduation.

Moreover, 24% of the respondents were pointed out that, the current system is expensive in terms of number of manpower and hours used to complete the tasks. Also, they said that the number of staff employed for Administrative functions that was too big and it could be minimized through the use of HRIS. Also, staff members were paid overtime to complete some tasks that could have been completed within working hours by using HRIS. For the financial year 2013/14 the Directorate of Human Resource and Administration used a total of Tshs. 50,000,000/= to pay for overtime allowances. This fund could have been used to adopt HRIS. Although cost of adoption and maintaining HRIS may be higher, the benefits associated with use of HRIS in long term are more important. Sometimes the costs associated with the number of manpower and hours required to perform some tasks are also very high.

All respondents agreed that the current HR system has many challenges which can be eliminated mainly by using HRIS. Findings also revealed that the current system is not benefiting University rather it provides loopholes for some unfaithful officers who may use it in favour of their friends or relatives. Both management and staff are well aware on the challenges of the current system and believed that IT could be eliminate the challenges associated with using of manual system in managing the employees.

Additionally, with the competition in the labour market the University is facing challenges in recruiting and retaining competent staff. The University should strive to create conducive and motivating working and living environment for its staff members in order to check the rate of staff turnover, especially among the young
administrative/technical and academic members of staff. With manual management of HR the University can hardly be able to effectively manage its human resources. As it has been pointed out by some researchers, HRIS can be used to manage staff strategically, motivate them and create conducive environment for them to achieve organizational goals (Allen and Scott-Morton, 1994; Porter and Miller, 1985; Grindley, 1991 and Mcfarlan, 1984).

4.3.3 Effectiveness and Efficiency of the Current HR System at ARU

Seventy two (72%) of the respondents said that, the current HR system is neither effective nor efficient as shown in table 4.2 below. Interviewed respondents revealed the reasons for inefficiency and ineffectiveness as being time consuming, inaccuracy due to presence of errors, inconsistency in making decisions, and many paper works that are difficult to store and retrieve records. In commenting on the time taken to approve staff leave, 85% of the respondent said it took an average of one week while 15% said it took almost two weeks to get an approval of leave. All 6 respondents (100%) in the Department of Human Resource who are the key user of the current HR system said the current manual system is cumbersome and consumes a lot of time on paperwork; therefore, it is both ineffective and inefficient. “If the process of approving leave takes more than one weeks to process, how about the other tedious processes such as recruitment….even a year” said one of the respondents.
Table 4.2: Response to the Analysis of the Effectiveness and Efficiency of the Current Human Resource System at Ardhi University

N=43

<table>
<thead>
<tr>
<th>Type of respondents</th>
<th>Number of respondents</th>
<th>RESPONSES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top management and heads of</td>
<td>11</td>
<td>1 (9%)</td>
<td></td>
<td>10 (91%)</td>
</tr>
<tr>
<td>departments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRM Staff</td>
<td>6</td>
<td>0 (0%)</td>
<td></td>
<td>6 (100%)</td>
</tr>
<tr>
<td>CICT staff</td>
<td>8</td>
<td>2 (25%)</td>
<td></td>
<td>6 (75%)</td>
</tr>
<tr>
<td>Other Staff</td>
<td>18</td>
<td>9 (50%)</td>
<td></td>
<td>9 (50%)</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>12 (28%)</td>
<td></td>
<td>31 (72%)</td>
</tr>
</tbody>
</table>

Source: Field data, 2014

The findings show that there is hardly an easy way that the system used at the University of Ardhi can be effective and efficient due to complexity associated with the increasing number of staff at Ardhi University. It is difficult to keep record, retrieve and manipulate records of 459 staff through manual hard files records and/or simple computer applications.

Table 4.3: Response Measures to be Taken to Overcome Challenges Associated with Current Human Resource System at Ardhi University

N=43

<table>
<thead>
<tr>
<th>Way forward</th>
<th>Frequency</th>
<th>Frequency in Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocate Funds</td>
<td>27</td>
<td>63%</td>
</tr>
<tr>
<td>Strategize</td>
<td>9</td>
<td>21%</td>
</tr>
<tr>
<td>Adopt HRIS</td>
<td>5</td>
<td>12%</td>
</tr>
<tr>
<td>Do not know</td>
<td>2</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Field data, 2014
In providing comments on ways to improve the situation, 63% of the respondents said that the management needs to allocate funds to adopt and implement HRIS. 21% of the respondents said that management should put into Strategic Plan the adoption of the HRIS. For instance, one respondent said:

“...The problem is that some profession is neglected and University Management is not giving them the required emphasize. The funds allocated for HR activities are negligible. Sometimes funds to buy Computers or other equipments to run the Departments are inadequate whereas the academic activities are given more weight”

There is debate on whether in Tanzania Human Resources Management is treated as a profession or not. This contradiction is featured at Ardhi University by pairing human resources functions with administrative support service; HRM recruits officers with irrelevant qualifications. Like in other organizations, the human resources department is used as a dumping ground for officers who fail to perform in other departments and therefore underrate the professionalism of the human resources occupation at the University.

The findings imply that Human Resources profession is underrated as a mere clerical job at the University and no efforts have been made to integrate HR activities in the University Corporate Plans.

4.3.5 Computerized systems at ARU

It was revealed from interview that currently, the University has other software such as ARIS which is used to handle student’s registration and examinations results, NAVISION for accounting and LAWSON which is Human Resource Information system which is mainly used by the Human Resource Officers to communicate with President’s Office Public Service Management in matter relating to staff salary adjustment, promotion and employment termination.
The study revealed that, ARIS has simplified the process of handling students examination results; every students receive his/her results as opposed to the traditional method of exposing list of results in the notice board; moreover, ARIS can be accessed even when the students is off campus.

The Directorate of Finance has been using Navision Software to manage their accounts since 2012. Processes such as management of salaries, revenue and expenditure are conducted through Navision Software. It was revealed that, the use of IT in the Finance Department for day to day activities has simplified their jobs. Currently, the finance reports are generated by clicking very few commands in computer which before the use of IT could take up to three days to generate the the report. “Data of up to 10 years can be easily stored, generated, retrieved compared with the pile of files we were using before installation of Navision system. We are very grateful that the Management supported our plan to use software in managing finance”

Lawson system is used to manage salary between Ardhi University and POPSM. It was revealed that the system is facing some challenges associated with availability of Internet. Despite of these challenges, it was found that the system has simplified the process of communicating with POPSM regarding staff salaries.

Both management and staff at Ardhi Univesity agreed that the use of software in handling their activities and processes has increased effectiveness and efficiency in the performance of their duties. The fact that the there are other IT systems at ARU used to manage activities and processes indicates that the Management is aware of benefit of using IT in providing services across the University. This is also supported by Lucas (1994) who said that organizations regardless of size, mission or role are critically depending on IT in almost every function level.
4.4 HRIS Awareness of Management and Staff at Ardhi University

Respondents were asked about their awareness of HRIS and the findings revealed that, 90% (22 out of 25 respondents) of the top management staff, Heads of Department, Human Resource Staff and CICT staff at ARU were aware of the HRIS. However, 72% (13 out of 18 respondents) of the lower cadre were not aware of the HRIS as indicated in Table 4.4.

Table 4.4: Awareness of the HRIS

<table>
<thead>
<tr>
<th>Type of respondents</th>
<th>Number of respondents</th>
<th>Number of respondents aware of HRIS</th>
<th>% of HRIS Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management and heads of departments</td>
<td>11</td>
<td>9</td>
<td>82%</td>
</tr>
<tr>
<td>HRM Staff</td>
<td>6</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>CICT staff</td>
<td>8</td>
<td>7</td>
<td>88%</td>
</tr>
<tr>
<td>Other Staff</td>
<td>18</td>
<td>5</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: Field data, 2014

These findings imply that, since the top management is aware of the system it is expected that it can help set up strategies to create awareness to all other staff and implement changes related to Human Resource Management System. It can be said that unawareness of the HRIS at Ardhi University is not the factor which hinders the adoption of the system.

Furthermore, the findings revealed that 90% of the Top Management staff is willing to adopt and implement HRIS. Seventy five percent (75%) of the HR staff, CICT staff and other staff had opinion that the Top Management is not willing to adopt the HRIS system. All respondents supported the idea of adopting HRIS system if the Management will be supportive and committed to implementation it.
For an organization to successfully engage itself in the implementation of HRIS there is a need for the organization to be aware and willing to implement it for the benefit of the organization. Without awareness one may not know its significance and may not be ready to put efforts to adopt it. Meanwhile, awareness and willingness of top management are considered to be the most critical success factor in implementation of HRIS in organizations Teo et al. (2007).

4.5 Key Areas in HRM Processes Need to Adopt HRIS

The third specific objective of this study was to identify Key areas in HRM processes that need to adopt HRIS was. Forty three (43) respondents were asked to mention key areas that need to tap HRIS in order to improve performance of HR functions.

Most of the interviewees (88%) agreed that, recruitment and selection is the most tedious HR activity as it may take more than three months from date of advertisement to the date of employing a new staff. Short listing and selection are conducted by feeding data in the Ms. Word or Excel and selection is done manually. Also, in the interview it was revealed that, the process is characterized by many human errors which can be minimized by adopting HRIS. With HRIS data will be fed to the system and the short listing of the qualified candidates will be done on computer.

In this study it was revealed that, the process of recruitment and selection are blamed for having favouritism and biasness; although it is yet to be empirically proved, most of the staff working at the University have friends and relatives who are also the employees. It is not certain whether the candidate were favoured to secure the position or they genuinely qualified for the posts. One of the Management staff said that “The University is running like family business you find here husband, wife, children, uncle etc. May be the HRIS will bring transparency and fairness in the recruitment and selection processes”.


Table 4.5 Key Areas for HRIS Adoption

<table>
<thead>
<tr>
<th>Areas for HRIS Adoption</th>
<th>Number of respondents</th>
<th>Frequency in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment and Selection</td>
<td>38</td>
<td>88%</td>
</tr>
<tr>
<td>Performance Appraisal</td>
<td>35</td>
<td>81%</td>
</tr>
<tr>
<td>Training &amp; development</td>
<td>34</td>
<td>79%</td>
</tr>
<tr>
<td>Record Keeping</td>
<td>23</td>
<td>53%</td>
</tr>
<tr>
<td>Human Resource Planning</td>
<td>15</td>
<td>35%</td>
</tr>
<tr>
<td>Record Keeping</td>
<td>3</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Field data, 2014

Recruitment and selection and performance appraisal were rated high (88%) and (81%) respectively as a key areas for HRIS adoption. During the interview it was revealed that, most of challenges of current HR system are in the process of recruitment and selection and staff performance appraisal. Although the record keeping has low percentage (7%) it worth to be mentioned to be included in the key areas for HRIS adoption. It was found during the interview that, the storage and retrieval of hard files is cumbersome and sometime the information is tempered by unscrupulous personnel or it just gets lost.

All HR staff 6 (100%) said that, recruitment and selection, staff performance appraisal and staff training and development should be tapped in the HRIS to increase efficiency of the respective Departments.

The effectiveness and efficiency of HR department in any organization, private or public including ARU to undertake its critical activities depend on the adoption of IT technology. HRIS can used in all HR processes and activities such as operational assistance in collecting, storing and preparing data for reports, simplifying and accelerating the processes and controlling the available data, reducing labor costs for
human resource departments, and providing timely and diverse information to the management of the organization, based on which it is possible to make quality strategic decisions related to human capital.

4.5.1 Benefits of HRIS Adoption
The initial cost of adoption and maintenance of HRIS are high. However, the long term benefit of HRIS can be achieved when the system is used to achieve effective and efficient utilization of human capital in order to realize organizational goals. HRIS assists the HR department in making the HRM process easier, faster, cheaper, and more effective as well as it benefits the organization to greater success.

All respondents mentioned the benefits of adopting HRIS which includes cost reduction, fast and accurate HR decision making, consistency, proper record keeping, and transparency. The findings are supported the findings by scholars like Teo et al., 2007 and Hussain, Wallace & Cornelius, 2007 who suggested that, HRIS has capabilities in shaping the integration between human resource management and Information Technology by supporting administration, planning for human resources. Other researchers were Ball (2011) who said HRIS supports most of HR applications including Record keeping; Chapman and Webster (2003) pointed out the importance of HRIS in recruitment and selection; Kathawongs (2004) mentioned also that HRIS supports compensation process; and Chan and Ngai, 2007) mentioned the importance of HRIS on Training and Development.

However, no respondent mentioned strategic HRIS benefit as indicated by Johnson and Carrico (1988) and De Sanctis (1986). HRIS can be used strategic decisions in order to achieve Organization objectives by integrating Human Resource with objectives set out in the Corporate Plans. HRIS adoption is expected to impact the operational aspects of HR functions positively by delivering significant efficiency improvements.
4.6 Challenges that Hinder Adoption of HRIS at Ardhi University

The Challenges that hinder adoption of HRIS in Public Institution was the third specific objective of this study. In responding to the question of the challenges that hinder the adoption or HRIS, the respondents mentioned the following factors: Management willingness and commitment to adopt HRIS, cost of adoption and maintenance of HRIS, culture of institutions, availability of consultants and IT experts, and organization size. Responses from 43 respondents are as shown in Table 4.6 below.

Table 4.6 Response to the Analysis of Challenges that Hinder Adoption of HRIS at ARU

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Frequency</th>
<th>Frequency in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of management commitment and/or support</td>
<td>25</td>
<td>58%</td>
</tr>
<tr>
<td>Lack of funds</td>
<td>35</td>
<td>81%</td>
</tr>
<tr>
<td>Lack of IT expert</td>
<td>20</td>
<td>47%</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>23</td>
<td>53%</td>
</tr>
<tr>
<td>HRIS facilities</td>
<td>37</td>
<td>86%</td>
</tr>
<tr>
<td>Organizational size</td>
<td>15</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: Field data 2014

4.6.1 Management Willingness and Commitment

Management commitment was considered to be a key driver for HRIS adoption in the public sector as it represents a source of support and funding which are both critical for adopting HRIS and adapting them to suit organizational requirements.

The findings revealed that 58% of respondents agreed that Management willingness and commitment is one of the hindrance factors towards adoption of HRIS. From the findings, 90% of the Top Management staff was willing and committed to adopt and
implement HRIS. Meanwhile 75% of the HR staff, CICT Staff and Other Staff perceived that Top Management was not willing to adopt the HRIS system. All respondents agreed to adopt new HRIS system if top Management will be supportive and committed to effectively implement it.

The findings from the study support the findings from Yang et al. (2007), that Chief Executive Officer’s (CEO) attitude and interest towards information communication technology (ICT) are important to promote ICT adoption. Also, Teo et al. (2007) beside top management support to adopt a system in the organizations, employees engagement is also needed which is also greatly influenced by the management willingness.

Seventy five percent (75%) of the respondents’ who had reservation on management willingness towards HRIS adoption was because of the non- allocation of funds for HIRS, and non existence of HRIS Policy. The existing ARU Corporate Plan and ARU ICT Policy (2010) does not stipulate the use of IT in managing HR and does not emphasize on HR related issues, hence it is not given special priority. As it was shown, the ICT policy aimed at using IT in all academic related matters.

Ardhi University Corporate Plan mentions challenges facing the Directorate of HR to include recruiting and retaining competent staff. In order to recruit and retain competent HR the University must strive to improve HR Directorate by having HR competent staff and facilities which includes HRIS. Staff cannot be motivated to stay at the University which provides poor HR services. Thus, the University Management Commitment is doubted because it is not even in the long term University Plans to adopt and implement computerized HR processes.

The study found that, Ardhi University Management was not giving the Department of HR the needed emphasis. It views the HR activities and processes as a mere clerical job. However, it is right time that the HR Department is given a priority it deserves; by doing
so, the Department will be able to recruit, retain and effectively and efficiently utilize its staff to realize the University Objectives as stipulated in the Corporate Plans. It is important for the Management to understand that human resources are the most valuable asset in organization; whether these people are working individually and collectively contribute to the achievement of organization objectives (Armstrong, 2006). Moreover, respondents were of the view that management commitment is imperative in adoption and implementation of HRIS.

4.6.2 Cost of Adoption and Maintenance

Funds to buy hardware and software, license and maintenance of HRIS is crucial factor for its adoption. Out of 43 respondent, 35 (81%) were of the view that, lack of funds inhibits the adoption of HRIS at the University. Ardi University’s financial resources continue to rely on the government funding (by 73% of its income on average). The findings are in agreement with the findings of the studies conducted by World Bank (1994) that, in all countries, higher education is heavily dependent on government funding.

In recent years, government funds have been decreasing inversely proportion to the cost of running University (Figure 4.1 below). Analysis of budget by ARU Council versus approved budget by government varies significantly from one year to another as summarized in Table 4.7.
Moreover, HRIS adoption in the public sector may be even more challenging than the private sector due to budget timing restrictions, public sector organizations may be subject to constraints of budgeting cycles which may be dictated by political influences or periodic changes in political priorities (Caudle et al., 1991; Themistocleous et al., 2004).

Table 4.7: Recurrent and Development Budget from the Government 2006/07, 2008/09 and 2010/11

<table>
<thead>
<tr>
<th>Year</th>
<th>Approved budget by ARU Council (Tshs)</th>
<th>Approved budget by Government (Tshs)</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006/07</td>
<td>7,521,153,727</td>
<td>5,395,085,678</td>
<td>2,126,068,049</td>
</tr>
<tr>
<td>2008/09</td>
<td>16,122,597,164</td>
<td>8,775,855,938</td>
<td>7,346,741,226</td>
</tr>
<tr>
<td>2010/11</td>
<td>49,777,232,856</td>
<td>11,673,554,000</td>
<td>38,103,678,856</td>
</tr>
</tbody>
</table>

Source: Field data, 2014
Minority respondents (19%) disagreed that funds should be prioritized as an important challenge arguing that funds have never been enough. Respondents were of the view that, although inadequacy of funds has been mentioned by respondent (81%) as main factor that inhibits the adoption of HRIS at Ardhi University; researches such as those by Caudle et al., (1991); Themistocleous et al., 2004, prioritizing activities is very important.

Moreover, 19% of the respondent who said fund does not inhibit the adoption of HRIS, mentioned other activities which consume University fund such as sitting allowances, and responsibility allowances. It was found from University financial report that, in the financial year 2013/2014 a total of Tshs. 189,970,000/= were used as sitting allowances for various meeting across the University. One respondent complained that: “Why should a person be paid for attending meeting to discuss or report their activities?…these funds could have been used for other activities such as renovation of building, improving working facilities and of to adopt software such as HRIS”.

The researcher is of the view that the major challenge was on the prioritizing plans. Resources such as finance are always scarce and require strategic plans and choices. Management commitment to plan for adoption of HRIS is of more important than funds. Even if the University receives adequate funds from the government it will not be able to adopt HRIS because it is not even planned in the ARU Corporate Plans. Thus, the main inhibitor for adoption and implementation of HRIS is management commitment and willingness to plan, allocate fund and manage all changes relating to adoption of HRIS. Literatures also support the requirement of Management commitment, for instance the study by Yang et al. (2007)

4.6.3 Availability of Consultants and IT Expert
A supporting organizational setting including a skilled workforce, can be critical for successful innovation adoption. HRIS expertise or human capability is significant factor
influencing adoption of HRIS. Out of 43 respondents 53% disagreed that lack of consultants and IT experts was a pertinent problem on adoption of HRIS. Interview information revealed that the ARU has IT Expert; in addition it was realized that there trained and trainable staff in the Centre for Information and Communication Technology whose knowledge and skills could help if HRIS is to be adopted.

Furthermore, The Ardhi University CICT Policy identified key areas of strength at the University which include a reasonable number of qualified and experienced academic staff members in respect to ICT are available, Space to accommodate ICT laboratories is which under construction and new ICT programme started by the University Information Systems Management (B.Sc. ISM). The CICT department had 16 staff with the following qualifications; 3 staff were PhD holders, 3 staff had Master degree, 2 staff had bachelor degree and 8 staff were Ordinary Diploma holders. All Human Resource Officers in the Directorate of Human Resource and Administration were degree holder and were also computer literate. Therefore, they can be trained on the application of HRIS.

Also, 86% of respondent said that ARU did not have enough facilities to adopt HRIS and availability of reliable internet services was rated as one of the main challenge which may hinder successful adoption of HRIS. Availability of facilities to accommodate HRIS is still a challenging factor at the University. ARU, ICT Policy, (2010) mentions various challenges including Over-reliance on government funding/support for ICT infrastructure development and aging ICT facilities and insufficient funding for their replacement.

Therefore, successful adoption of HRIS requires availability of skilled HRIS professionals in the organization because if the users lack understanding of the system features; then, this can be a major obstacle in HRIS adoption (Troshani et al., 2011). Thus, the availability of consultants and IT expert at Ardh University is a motivating
factor. It can be used to design, adopt and implement HRIS which is suitable to the University need and ensure day to day maintenance. The availability of human capital with IT skills is an inhibiting factor in many institutions; however, due to increasing use of IT in the provision of services in the University necessitated the recruitment of more qualified IT expert.

4.6.4 Culture of Organization

Fifty three per cent of the respondents (53%) were of the view that, culture could be an inhibiting factor to the University’s willingness to adopt HRIS. Culture of the organization is an obstacle to the HRIS Adoption and ARU is not ready to accept changes associated with HRIS Adoption. Respondents of the lower cadre were of the view that, HRIS would bring transparency in the provision of HR services and eliminate favouritism. However, they were afraid of the changes associated with adoption of HRIS. The extract below is a statement given by one respondent.

“Shida ya teknolojia unaweza kukuta hapa wote tukapunguzwa kazi kwa sababu kompyuta inaweza kufanya kazi badala yetu....labda kama hatutapunguzwa mnaweza kuanzisha” which means “the problem with the use of technology is that it can create redundancy because computers can perform works that we could do. If we won’t lose our job, then you can introduce it.”

Due to a bureaucratic culture, public sector organizations generally introduce innovations reactively. Interviewed respondent suggested that, it is time to adopt HRIS after operating with ineffective HR system which has raised many complaints and demoralized the employees.

Although it is difficult to change or eliminate organizational culture because it dictates “the way things are done around here”. Culture plays a strong role in organizations. The culture of an organization dictates how it operates, innovates, and receives change. Culture affects individual behaviour, hence organizational culture (French & Bell,
Management commitment to change organizational culture in order to accommodate changes is crucial. Therefore, the management commitment and organizational culture in matter relating to HRIS are interrelated factors.

4.6.5 Organization Size

Organization size was also found to impact HRIS adoption. 35% of the respondents agreed that government departments with large numbers of employees can use the size of the organization to support their business case for adopting HRIS because potential benefits can be spread across large user bases. However, organizational size can also increase complexity. That is, “the bigger the organization, the more complexity the organization” which can, in turn, adversely affect the flexibility with which HRIS can be adopted for efficiency.

HRIS like PeopleSoft can be installed by a company consisting 25 employees but the huge expense for installation would be difficult to justify. Similarly, a large multinational company could create a database program just to access and perform the functions necessary to operate, but it would be unmanageable and very limited solution. Thus, it is clear that effective HRIS requires a balance between technical and HR information needed by an organization and function which is determined by size.

The size of Ardhi University which has 459 staff makes the HR process and activities tedious and the challenge of the existing HR system validate the need to adopt HRIS for the benefit of the organization. The findings support the findings by Hendrick (2003) who argued that all HRIS are not created equally and the need of HRIS usage depends on the size of the firm. Additionally, Troshani et al., (2011) said that organization size is important factor in successful innovation adoption.
4.7 Testing Hypothesis

This section presents tests of the research hypothesis. The hypotheses are tested and compared with data obtained from the field. The following hypothesis were tested:

Current HR systems used at ARU are inefficient and ineffective, ARU Management is unaware and not willing to adopt HRIS, All HRM processes and activities at ARU need to use HRIS and Management commitment, size of organization, Funds, IT expert and organization culture has negative impact to the institution capability of adopting HRIS.

4.7.1 Hypothesis 1: Current HR systems used at ARU are Inefficient and Ineffective

The hypothesis was tested with the questions of the analysis of the ARU current HR system, challenges facing current system, methods used to perform HR activities and processes, time taken to perform HR processes and whether the system is effective and efficient as indicated in Table No. 4.2 where an average of 72% of the respondent confirm the hypothesis that the current HR systems used at ARU are inefficient and ineffective. This gives the conclusion that, current HR systems used at ARU are inefficient and ineffective as it was also shown in the literatures.

4.7.2 Hypothesis 2: ARU Management is Unaware and not Willing to Adopt HRIS

The findings revealed that ARU Management is aware of the HRIS and the benefit of adopting the system in the organization as indicated in Table 4.4. These findings were obtained by asking what respondents understand about HRIS. Respondents from the top management said that they were willing and committed to adopt HRIS. However the willingness and commitment of the Management was doubted by the lower cadre staff as shown in Table 4.5. The willingness may be reflected in the ARU Corporate Plans and allocation of funds to improve the HR System. This hypothesis was partly negated by the findings that the Management is aware of the system and partly supported, that the management is not willing to adopt HRIS. Most studies showed that management commitment has a positive influence on HRIS or IT adoption (Teo et al., 2007; Troshani
et al., 2011; Yang et al., 2007). Therefore, without Management willingness, ARU will never adopt HRIS system.

4.7.3 Hypothesis 3: All HRM Processes and Activities at ARU Need HRIS
The hypothesis was tested by asking respondents key HR areas/activities which HRIS need to be adopted. The findings revealed that, for ARU there are some HR processes which are very challenging and there is need to tap them in HRIS as indicated in Table 4.6. Although hypothesis and literature supports the facts that all HRM processes can be tapped in HRIS, the findings revealed that, according to ARU organization needs, the above mentioned areas and processes are important to start with.

4.7.4 Hypothesis 4: Management Commitment, Size of Organization, Funds, IT Expert and Organization Culture has Negative Impact to the Institution Capability of Adopting HRIS
The hypothesis was tested by asking how every factor is affecting the University plan to adopt HRIS. The respondent agreed that all factors affect the University; however, there are factors which were supported more than others as indicated in Table 4.6. The management commitment to adopt HRIS and cost of adoption and maintenance can be termed as major inhibitors of HRIS adoption at Ardhi University. Organization culture can be managed successful if the Management is committed to the HRIS adoption. Availability of IT consultant and IT expert and organization size are the key drivers towards the adoption of HRIS.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

HRIS has capabilities of managing HR efficiently and effectively despite of the exponential technology growth towards advanced information system, ARU continues to manage human resources in a traditional manual system such as keeping, using and retrieving employees’ records in hard files. This practice has caused errors, delays, inconsistency in making decisions regarding to the Human Resource and staff complaints at ARU.

Therefore, this study sought to make an assessment of factors that hinder the adoption of HRIS at Ardhi University. The overall purpose of the research was to assess the factors hindering adoption of Human Resources Information Systems at Ardhi University. The specific objectives were to examine the current systems used to manage human resource at ARU, to find out the existing challenges in adopting HRIS at ARU and to identify potential processes and areas of HRM for adoption of HRIS.

It was presumed that, current HR systems used at ARU are ineffective and inefficient and ARU management is unaware and it is not willing to adopt HRIS. Also, all HRM processes and activities at ARU need to use HRIS. Further, it was assumed that, management commitment, size of organization, funds, IT expert and organization culture has negative impact on the institution capability in adopting HRIS.

The main guiding research questions were intended to understand the current HR system, its challenges and benefits if any. It further examined the management HRIS awareness and willingness and took a depth study of the factors which hinder the
adoption of the HRIS system and also aimed at identifying key areas and processes of HR that need to adopt HRIS.

Based on the literature review, the management commitment, availability of funds, Organization Culture, Organization Size and availability of IT consultant and expert are the inhibiting factors in most organization towards the adoption and implementation of HRIS.

This study used single case study of Ardhi University, data were collected through questionnaires and in-depth interview complemented by secondary data. Out of 43 respondents, 5 were interviewed; this allowed flexibility in asking question and in depth analysis of the study. 38 respondents filled in the questionnaires. Stratified random sampling, purposive sampling, and convenience sampling were used to select a total of 43 respondents. Data analysis was done where by qualitative data were analyzed using cases and examples while quantitative data were analyzed using statistical package for social sciences and the findings were presented in tables, percentages and frequencies.

The findings of this study revealed that Ardhi University current system that used for managing human resource is ineffective and inefficient. The system causes delays in making decisions, errors, inconsistence, and creates room for favoritism. There is no benefit in using the current manual system as compared to HRIS which is easier, faster, cheaper, and more effective and it benefits the organization to greater extent. With the current technological advancement and competition in proving services and labour mobility it is appropriate time that the University use the most effective way to manage its human capital through HRIS.

Additionally, management commitment or willingness is major factor that inhibits the adoption of the HRIS at Ardhi University. The management sets strategies and allocates funds and it can lead changes in any organization. Management commitment can also help to manage resistance for change associated with rigidity culture of Public
Organizations. Since the Ardhi University does not have the strategy to adopt the HRIS, there is no possibility that funds can be allocated to this activity given that it is not planned or set in the Corporate Plans. It is imperative that the management at the Ardhi University commits itself to the adoption and implementation of the HRIS. There is need to strategize the adoption of HRIS, including it in the University ICT Policy and prioritize the use of HRIS in delivering services.

The cost of adoption and maintenance of the HRIS seems to be high compared with the inadequate fund the University receives from the Government. The University should demonstrate HRIS benefits before its adoption. The benefits include integration, accessibility, operational efficiency and the extent to which these benefits can justify adoption costs and inherent HRIS complexity. For adoption to encounter minimal resistance, HRIS needs to deliver these benefits via user-friendly functionality. The University should now trade the cost of adoption of HRIS with the long term benefit of adoption of the IT in delivering HR Services.

Organization size: The Ardhi University with total of 459 staff can be categorized as a medium size organization. The manual handling of HR processes is weak and it allows many errors, inconsistencies and delays in making decision. Therefore, the size of the organization can justify the cost of adopting HRIS. It is recommended that the University adopts HRIS because its size makes the HR service delivery difficult.

5.2 Conclusion
The Management commitment and willing to adopt HRIS and the cost of adoption and maintenance can be termed as the major inhibiting factors for HRIS adoption at Ardhi University. Organization culture can be managed successful if the Management is committed to the HRIS adoption.
Availability of IT consultants and experts and Organization size are the key drivers towards the adoption of HRIS at Ardhi University. The University has Centre for Information and Communication Technology (CICT) which is has skilled human capital. This is the key driver towards adoption of HRIS at the University. Moreover, ARU is a medium size organization with 459 staff; to manage effectively and efficiently this number of staff requires IT system because the number is too big to be handled manually as indicated.

The first HRIS adoption champion is the management commitment which is crucial for both supporting adoption initiatives, designing and implementing strategy of managing changes. It also ensures that the resources are made available for sustaining adoption efforts including the development of human capability. Top management support has significant influencing action on the adoption of HRIS. The findings from Yang et al. (2007), shows that Chief Executive Officer’s (CEO) attitude and interest towards information communication technology (ICT) are important to promote ICT adoption. The management commitment is also crucial in ensuring that the change which will be brought by HRIS is implemented to the organization successfully. According to Teo et al. (2007), beside top management support to adopt a system in the organizations, employee engagement is needed although it is also greatly influenced by the management commitment.

Culture becomes hostile to change and to people who champion new ways of doing thing and makes it difficult for subordinate employees to introduce new ideas (Hiriyappa, 2009). Although the Organization culture seems to be an obstacle in implementing changes in public institution; the management can set up plans for managing changes and eliminating resistance towards achieving HRIS. This situation points to the importance of management commitment in adopting HRIS.
Cost of adoption and maintenance goes hand in hand with benefits associated with HRIS Adoption. Ardhi University needs to demonstrate the benefits that HRIS can introduce to their organizations including integration, accessibility, and operational efficiency and the extent to which these benefits can justify adoption costs and inherent HRIS complexity. Long term benefit of HRIS can be achieved when the system is used to achieve effective and efficient utilization of human capital in order to realize organizational goals. HRIS assists the HR department in making the HRM process easier, faster, cheaper, and more effective; it also benefits the organization to a greater success.

The benefit of HRIS to the organization is also supported by scholars like Teo et al., (2007) and Hussain et al. (2007) who suggested that, HRIS has capabilities in shaping the integration between human resource management and Information Technology by supporting administration, and planning for human resources. Other researchers for instance Ball (2011) said that HRIS supports most of HR applications including Record keeping; Chapman and Webster (2003) mentioned that HRIS supports recruitment; Kathawongs (2004) said that HRIS supports selection and Compensation; and Training and Development were mentioned as factors that are supported HRIS (Chan & Ngai, 2007).

5.3 Recommendations
The research aimed to identify areas which could be important to the policy makers, academicians and researchers, Management and IT practitioners.

Based on the findings of this study, the management is recommended to make appropriate decision regarding the adoption of HRIS. This includes strategies, policies to acquire HRIS in order to effectively and efficiently utilize human capital for a great success of the University. The strategies must make analysis of cost and benefit of adopting the HRIS in managing human capital in the institution.
The benefit of using HRIS depends on level of adoption in the organization; it can be used strategically to directly improve the organization competitiveness. It is recommended that, the organization integrates the use of ICT with the strategies and plans to ensure maximum utilization of technology in realizing organization objectives rather than using HRIS for only administrative applications such as payroll and employees’ record keeping.

Furthermore, an improved understanding of the organizational adoption of HRIS could be useful to HR managers and IT or IS professionals as they design and implement HRIS. Knowledge gained can be used to achieve greater efficiencies in HRIS adoption by developing actionable adoption tactics, strategies, and policies for improving the chances of achieving HRIS adoption success. For example, the findings in this study can be useful reference for changing agents within organizations, such as HR managers, decision makers, and HRIS adoption champions.

This study contributes to the existing body of knowledge by enhancing current understanding of the organizational adoption of HRIS which is the less researched area in developing countries. The study revealed that, the management commitment cost of adoption and maintenance and organization Culture are the main inhibitors of HRIS adoption. Further research is needed to investigate HRIS adoption from other perspectives to expose management to these inhibitors and change their mind set to the benefits of using computerized system in providing public services.

Public sector organizations, knowing adoption drivers and inhibitors, decision makers will be in a better placed to improve HRIS adoption in the public sector (Smith et al., 2010). Isolating HRIS adoption factors, understanding their impacts, and tracing the load of relevant interactions is crucial if public sector HR managers and decision-makers are to understand their ensuing effects. In turn, this can help them in shaping the strategic positioning of their organizations and achieving advantageous relationships with all stakeholders that control the identified factors.
The University Management should understand that, HRM is an occupation, whose professional contribution is required in Tanzania’s efforts of economic rehabilitation by increasing efficiency, effectiveness, awareness of employees rights and responsibility in the workplace, better management of work organisations, increased motivation, better remuneration schemes, better planning of human resources acquisition and utilisation. The HRM should be given due considerations in the University Corporate Plans by ensuring that HR is integrated into the Objectives of the University. More weight should be given in the HR Department and integrate HR in the University Corporate Plans in order to effectively and efficiently realize University’s objectives.

Additionally, prior knowledge of these factors and their interactions can help the use of targeted HRIS adoption and implementation efforts at the various phases of the adoption process (Rogers, 2003). More broadly, as the number of organization adopting of HRIS is increasing, this knowledge is serving upon all types of organizations and public sector organizations in particular to understand HRIS adoption dynamics if adoption HRIS is affected.
REFERENCES


Gupta, C.B., (2010), Management Theory and Practice, 15th Edn, Sultan Chand Publisher, New Delhi


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APPENDIX A: QUESTIONNAIRE ARU STAFF
AN ASSESSMENT OF FACTORS HINDERING IMPLEMENTATION OF HRIS IN PUBLIC INSTITUTIONS: Case Study of Ardhi University

I am Anna John Mushi a student at Mzumbe University pursuing Master of Human Resources Management (HRM). I am undertaking research titled: An Assessment of factors hindering adoption of human resource information system (HRIS) in Public Institutions in Tanzania: The case of Ardhi University. I am requesting your assistance to fill my questionnaire.

Kindly be informed that your response will be accorded with HIGH LEVEL OF CONFIDENTIALITY AND IT IS PURELY FOR ACADEMIC PURPOSES. The findings of the study firstly will result into achieving partial fulfillment for the attainment of my Master’s Degree and second it will assist Ardhi University to identify factors hindering adoption of human resource information system in order to effectively and efficiently manage human resources.

PART I: BACKGROUND INFORMATION

Name of your Department ____________________________

Your Position in the organization: ____________________________

Date of interview: ____________________________

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<th>Mark the number of response</th>
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<td>Female</td>
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<p>| 2. Highest level of education attained by the respondent |
| Secondary level ‘A’ level,                              |
| Ordinary Diploma level,                                |
| Advanced Diploma level,                                |
| 1st Degree level,                                       |</p>
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<td>Age of respondent (years)</td>
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<td>How long have you been in the similar post/task (years)</td>
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**N.B: Human Resource Information System (HRIS);** is a system (software and hardware) which is used to acquire, store, manipulate, retrieve and distribute pertinent information about organizations human resources.

What do you know about HRIS? ..........................................................

........................................................................................................

........................................................................................................

Is ARU currently using HRIS in performing any Human Resource activities? …...

If YES in question ii mention HR activities that use HRIS at ARU
........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................

How does the Directorate of Human Resource perform most of its activities at ARU?
Please tick (✓) from the list below
Using Computerized system
Manually
Using simple computer application such as Ms. Word and Ms Excel

Other (Please specify) ………………………………………………………………………

Given the size of ARU (number of employees), Do you think the HR processes and activities under current manual system can be done effectively and efficiently?

………………………………………………………………………………………………………

Give reason(s) for answer in question (v) ………………………………………………

………………………………………………………………………………………………………

How do you comment on the time taken to perform HR processes and activities?

………………………………………………………………………………………………………

………………………………………………………………………………………………………

How many days does it take to approve leave of an employee in current manual Human Resource System?

………………………………………………………………………………………………………

What are the benefits of the current Human Resource System?

………………………………………………………………………………………………………

Are the current HRM systems efficient and effective?

What are the challenges of current HRM system? Please Tick (✓) from the list below;

Delays
Errors
Inconsistence
Cost
Poor decision making
None
Others (please specify) ……………………………………………………………………………………

What can be done to address challenges of the current HRM system?

………………………………………………………………………………………………………

………………………………………………………………………………………………………
Does the ARU Management have awareness and knowledge of HRIS and its benefits towards achieving organization HR requirements? ....................................

Give reason (s) for your answer .................

Does the University have ICT Policy? ............................................................

What does the policy stipulate about the HRIS? ...........................................

What do you think will be the benefits of adopting HRIS at ARU? Please (√) from the list below

- Cost reduction
- Fast and accurate HR decision making
- Proper record keeping
- Consistency
- Others (Please specify)..............................................................................

What are the main HRM processes and activities at ARU? Please tick (√) among the listed below:

- Recruitment and Selection
- Training and Development
- Performance Appraisals
- Benefit and Compensation
- Human Resource Planning
- Succession Planning
Record Keeping
Managing leave
Others (please specify) ...........................................................................................................

From list in question xvii, list the important HR processes and activities that can be tapped into HRIS
...........................................................................................................................................
...........................................................................................................................................
...........................................................................................................................................
...........................................................................................................................................

Do you think ARU Management is committed to adopt HRIS? .........................

Is there any efforts taken by ARU Management towards adoption of HRIS? Please tick (√) from the list below

HRIS strategy
Fund allocation
Training of personnel
Others (Please specify) ...........................................................................................................
...........................................................................................................................................
...........................................................................................................................................

What are the challenges of adopting HRIS at ARU? Please tick (√) from the list below

Lack of Management commitment/support
Lack of Fund
Lack of IT Expert
Organization Culture
Organization Size
HRIS facilities
Others (please specify) ...........................................................................................................
...........................................................................................................................................
...........................................................................................................................................
Why do you think lack of Fund is the challenge in adopting HRIS at ARU?

..........................................................................................................................................................

..........................................................................................................................................................

..........................................................................................................................................................

Does ARU has required facilities for adopting HRIS? ..............................................................

Tick (✓) from list available facilities at ARU

Reliable Internet Service

IT Expert

Trainable Personnel

Computers and accessories

Others (please specify) ................................................................................................................................

..........................................................................................................................................................

..........................................................................................................................................................

Does ARU have IT Expert and Trained HR Personnel? ...........................................................

Please explain your answer ................................................................................................................................

..........................................................................................................................................................

..........................................................................................................................................................

Are the ARU Management and staff willing to receive changes associated with HRIS adoption? ..........................................................

Why? ..........................................................................................................................................................

..........................................................................................................................................................

Feel free to use additional paper!

Thank you for taking your time to respond to my questionnaire
APPENDIX B: INTERVIEW GUIDE TO ARU MANAGEMENT

AN ASSESSMENT OF FACTORS HINDERING IMPLEMENTATION OF HRIS IN PUBLIC INSTITUTIONS: Case Study Ardhi University

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1st Degree level,  
Master Degree level

3. Age of respondent (years)  
21 – 30
31 – 40
41 – 50
51 – 60

4. How long have you been in the similar post/task (years)  
1 – 10
11-20
21 – 30
31 – 40

N.B: Human Resource Information System (HRIS); is a system (software and hardware) which is used to acquire, store, manipulate, retrieve and distribute pertinent information about organizations human resources.

Research study introduction and purpose of the study.
Whether ARU has ICT Policy?
What is the current Human Resource system used to manage employee?
How do you analyze the current system? Effectiveness and efficient of the system?
What are the challenges of the current system
Does ARU have any plan for HRIS adoption? What are they?
How will the HRIS benefit the HR organization?
What are the existing challenges for HRIS adoption?
If adopted what are the HR process and activities needs to be tapped in the HRIS?

Thank you for your time!