

**THE PRACTICES AND CHALLENGES OF HUMAN RESOURCE INFORMATION SYSTEM
THE CASE STUDY OF SELECTED PUBLIC SECTOR ORGANIZATIONS
IN ADDIS ABABA**

**BY
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SGS1/0135/2004

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**RESEARCH REPORT SUBMITTED TO ST. MARY UNIVERSITY SCHOOL OF
GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER IN BUSINESS ADMINISTRATION [HRM CONCENTRATION]**

**NOVEMBER 2013
ADDIS ABABA, ETHIOPIA**

**ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
FACULTY OF BUSINESS**

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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of _____. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name

Signature& Date

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Advisor

Signature & Date

DEDICATION

This piece of work is dedicated to my father, Mr. Mulat Gebreyes for his selfless support, constant encouragement and inspiration toward in pursuit of my academic ambitions; and to Somali Regional State who greatly encouraged and supported me financially during the production of this research thesis.

ACKNOWLEDGEMENT

First of all, I would like to express my deepest thank to the almighty God and to the Mother of Jesus, St. Mary who helped me through all the rough and difficult times and gave me strength and encouragement to complete the course of this study.

Then my special thanks and gratitude goes to my advisors Dr. Worku Mekonnen for his unreserved cooperation, incredible suggestions, supervision and remarks, appreciable encouragement and professional guidance. With him I had mentoring sessions including discussions about different thoughts and philosophy regarding how to make a research and write a thesis and the supervision sessions became theoretical and more focused on the research subject area. His assistance goes well beyond what words can express. I would like to thank him for his concern and patience. I like to extend my deepest gratitude to my lecturers at the University and you will forever hold special memories, I am grateful to all of you.

I would also like to thank the HR managers of Ethio telecom, Ethiopian air line, Oromia Regional Health Bureau and Ethiopian Revenue and Custom Authority for their kind and unlimited support during the pilot survey. My gratitude also goes to all the senior HR executives who took time off their busy schedules to respond to the questionnaire. In addition, I like to thank my fellow-students specially Woldebirihan for his good and encouraging advice in the course of my study. Finally, I am very grateful indeed for those people whose names are not mentioned here, for their direct or indirect contributions, to the completion of this research. For all of you, your contributions will always be in my memory. The effort made by St. Mary University School of Graduate Studies in facilitating the course and research work is highly appreciated.

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List of Acronyms & Abbreviations

DSS	Decision Support System
DM	Decision Making
ERCA	Ethiopian Revenue and Custom Authority
ERP	Enterprise Resource Planning
HCM	Human Capital Management
HR	Human Resource
HRD	Human Resource Development
HRIC	Human Resources Information Centre
HRIS	Human Resource Information Systems
HRM	Human Resource Management
HRMS	Human Resource Management Systems
ICT	Information and Communication Technology
IS	Information Systems
IT	Information Technology
PC	Personal Computer
SHRM	Strategic Human Resource Management
TNA	Training Need Analysis
WWW	World Wide Web

Abstract

The purpose of the study was to explore the practices and contributions of HRIS to HR division through HRIS recruitment, training and development, performance management, compensation and employee administration subsystems and pinpoint the Challenges associated with its implementation as perceived by senior HR executives in selected public sector organizations in Addis Ababa. A structured questionnaire was designed, pre-tested, modified, and used to capture data on HRIS from senior HR executives in organizations. The questionnaire was pilot tested by consulting HRIS expert, HR managers and academician. Based on the feedback from the pilot-test, the questionnaire was modified and self distributed to the respondents. Cross-sectional study and quantitative and qualitative techniques were selected as research methods. Non probability purposive sampling was used during the selection of the sample. Feedbacks received from 65 participants were analyzed and the overall response rate was 67.7 percent. The SPSS computer package was used to analyze the collected data. The assessment of the research revealed that the HRIS systems had improved the various functionalities of HR division in the organizations, helped in storing voluminous data about their employees, eased the access and dissemination of information, and the information generated internally increased the coordination between the HR department and administration and facilitated the decision making processes. From the result, several challenges were also pointed out among which included lack of funding to acquire, update, and maintain critical HRIS, lack of expertise in IT to operate the HRIS because of the weakness of the organizations to train, educate and develop the HRIS staff and insufficient financial support which result in poor HRIS implementation process. The research findings suggest that organizations should have to revise their current HR and HRIS policies and procedures to promote effective HRIS practices and to achieve excellent organizational performance. In addition, HRIS needs to offer more intelligent capabilities & features in order to increase the effectiveness of HR divisions, and HR executives should be enriched with more training and development to increase their awareness and usage of various HRIS subsystems. Finally the findings of the research would give valuable insights about the practices of HRIS in the organizations. Further research should address into exploring the roles of HRIS in transforming the functions of HR and in facilitating decision making process among more public & private sector by overcoming challenges mentioned in the study.

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Working environment today is rapidly changing and is much more affected by turbulence, uncertainty and instability than it was some decades ago. Organizations are confronted with the stated situation and in such circumstances have to manage their resources, such as physical, financial, informational and human resources (Deloitte, 2006). Firms are today aware of the fact that human resources represent their most valuable resources, one which is crucial for creating competitive advantage due to their specificities (Kovach and Cathcart, 1999). Recently companies have viewed human resources and Human Resources Management (HRM) as the means to enhance the operations of organizational functions which directly contribute to the company's profitability and determine company's success in gaining a competitive advantage (Hendrickson, 2003). Human Resources Information Systems play significant role in supporting all operations inside of the HR division.

Human Resource Information System is the most recent in a progression of functionally oriented information systems, which reflects the trend towards end user computing encompasses a wide range of computer based applications. A comprehensive conceptual model of the HRIS generates very useful information for the organizations individual managers (Gardner *et al.*, 2007). Human resource information systems have been used in HR departments for many years, but more recently their use has changed to that of playing a more strategic role to support HR professionals, in particular HR managers (Devenport, 1998). Introducing new technology into the workplace presents both opportunities and challenges. HR Information Systems (HRIS) have the potential to transform HR into a more efficient and strategic function by allowing HR to move beyond simple administrative tasks to strategic applications (Ngai, *et al.*, 2006). Globalization is forcing HR to expand its horizons, perspectives and use of technology.

HRIS help employees to control their own personal information and by allowing managers to access relevant information and data, conduct analysis, make decisions, and communicate. Organizations change their HR policies and practices due to technological development. It

also provides a lot of information to top management in taking timely decision on administrative matters (Hendrickson, 2003). With the help of sound HRIS the organizations can adopt new changes in HR functions such as planning, recruitment, selection and training of employees.

Today, many companies are transforming their HR functions from manual workflow to computerized workflow. Computers have made the resource data into a simple task. Computer hardware, software, and databases help organizations maintain and retrieve human resource records better and simpler. Human Resource Information System (HRIS) will help organizations “keep an accurate, complete, updated database that can be retrieved when needed from reports” (Morley *et al.*, 2006).

HRIS can support also long range planning, with information for labor force planning, and supply and demand forecasts; staffing with information on equal employment, separations, and applicant qualifications; and development with information on training program costs and trainee work performance (Tansley *et al.*, 2001). With employee data neatly woven into an orderly web of HRIS databases, HR executives become free to pursue more critical and creative-thinking projects. The automation of the data significantly reduces the likelihood of entry errors and discrepancies between records (Williams, 1997). The formation of one vast, unified reservoir of employee information allows for more complex and integrated analysis by company executives, facilitating better decision making and greater business efficiency (Panayiotopoulos *et al.*, 2005).

This study aims to find out the contribution of Human Resource Information System (HRIS) to HR division throughout its various subsystems such as recruitment and selection, training and development, employee administration, compensation, and performance management within the perception of senior HR Executives. These basic HRIS activities provide a foundation for the readers and academicians to understand and explore how computerized information can assist human resources (HR) executives achieve certain human resource objectives and analyze the practices and identify the challenges organizations have faced when adopting and implementing HRIS and human resources issues in regards to information technology.

1.2. STATEMENT OF THE PROBLEM

With the changing world and constant new technology that is available and environment of increasing in competition locally and globally, organizations must become more adaptable, resilient, agile, and customer-focused. Managers need to be aware of the technology that will increase effectiveness and improve efficiency in their organizations. Human resource information systems (HRIS) have a significant contribution in transforming and improving the efficiency and effectiveness of the HR department and the organizations (Pichault, 2007).

HR used to have a manual system where they had to collect applications from employee and maintain a ledger for each and every employee in order to keep their records. This entire process was extremely time consuming & more over it had high probability for data discrepancies. Issues relating to continuous poor employee management systems, delayed personal data aggregation, poor talent management and poor staff file management continue to hinder human resource service delivery in the organizations. Four organizations that already had implemented and using the HRIS system were selected and their heads of HR were interviewed to identify the problems. Their annual reports were referred in order to identify their policies.

Ethiopian air line was identified as a successful HRIS user mostly in HR administration functions. The organization stands out as a successful HRIS user because they have good IT governance policy. In the past, the organization managing the process of attracting new applicants and facilitating the training was handled through a paper-based process that began with placing an advertisement for job openings in various newspapers. As the company continued to grow and each new advertisement generated hundreds of resumes, continuing to use a paper-based system just did not fly. Too much time was spent evaluating nonqualified candidates and not enough time was allocated for assessing the applicants' skills and talents, limiting their ability to effectively evaluate potential employees. Due to the volume of resumes received by HR department, those who were at the top of the stack got looked at first, and the process did not allow the recruitment managers to necessarily consider an applicant for all the openings for which they might best suited. The company needed an automated solution that would not only improve the overall training and hiring process but also improve the quality of applicants seen by the hiring managers. Then the organization

continues to give attention to outline the IT systems in line with its strategies and objectives by the principles of with good IT governance, HRIS investments can be well planned and take place.

Tracking human resource information with spreadsheets is a hefty and laborious task for any HR professionals (Devenport, 1998). According to Oromia regional health bureau HRIS expert, the organization already have implemented the system in collaboration with Tulane University to enhance the productivity and improve the performance of the bureau but they still use it only for administrative activities such as payroll system and employee information management. They did not use the system effectively as a management tool which contributes to HR activities such as recruitment, selection, succession planning, performance evaluation, training, and development. Since the organization has already spent a considerable amount of money on HRIS, they don't need to afford a new system. Though they need to identify inadequacy of the existing system and solve the challenges. Therefore, in such organization, HRIS does not play a significant role in transforming and automating the functions of HR department and failed to manage their employees fairly, equally & transparently.

The current HRIS system at Ethiopian Revenue and Customs Authority (ERCA) involves a lot of manual feeding. The employee data is stored in the excel sheet and various other important factors like attendance records, pay roll, employee information, etc are stored under different fields in excel. Excel has macros which is a feature very helpful to automate few calculations. But as the number of employees increase and the data doubles, it becomes highly inefficient to store and process data and uses the derived information to make decisions. According to head of HR division of ERCA, HRIS is used to reduce the cost and increase the productivity by compensating employee shortages which has led to flatter their organization with wider spans of supervision. The authority used traditional recruiting sources rather than the e-recruiting facilities of HRIS when recruiting employees due to lack of support from the current system. But organization is still struggling to align their existing HRIS system facilities with the HR department functionalities to meet their objectives.

Organizations like Ethio telecom are smart enough to set overall information system policies in advance seem to acquire HRIS to fulfill their HR functions. Though the existing HRIS

system supports HR department functionalities of the organizations, they do not fully utilize the system functions effectively and efficiently due to the dependence on traditional methods.

These issues and problems demand that HR departments need to continually assess their internal processes, systems and capabilities. Therefore, Human resource information systems (HRIS) have a significant role in solving these challenges and transform the functions of HR department as well as the organizations. This research aims to investigate the contribution of HRIS to human resources division through its various subsystems. Furthermore, the study would also guides future HRIS users to make optimum use of HRIS functionalities in their HR division.

1.3. BASIC RESEARCH QUESTIONS

With the aim of addressing the general and specific objectives of the study, the entire efforts of the paper revolve around seeking answer to the following question:

1. How does the HRIS recruiting subsystem contribute to the automation and integration of HR division of an organization and facilitate decision making?
2. What is the role of training subsystems of HRIS in the transforming the functions of human resource department of the firms?
3. Does the performance management subsystem of HRIS play a significant role in producing successful and integrated HR department of an organization?
4. How does the compensation management HRIS subsystem facilitate the activities of HR division of an organization?
5. To what extent employee information management subsystem of HRIS plays a relevant role in the transformation of HR department of the organization and support decision making process?
6. What are the challenges of adopting, implementing and practicing of human resource information system?

1.4. OBJECTIVES OF THE STUDY

1.4.1. GENERAL OBJECTIVE

The general objective of the study is to investigate the practices and pinpoint the challenges associated with human resource information system adoption and implementation in selected public sector organization in Addis Ababa.

In light of this and in order to satisfy the research questions, the specific objectives are:

1.4.2. SPECIFIC OBJECTIVES

1. To evaluate the current practice of the HRIS recruitment subsystem and pinpoint strong area and areas that needs improvement.
2. To assess the current practices of training subsystem of HRIS and shows what Process improvements will support HR division in providing the highest quality of service to the employees.
3. To have insight to the present practice of HRIS performance management sub system of the firms and show possible ways of further improvement
4. To examine the level of HRIS compensation subsystem practice and indicate the main success and failure factor associated with it in the organizations.
5. To explore how human resource information system (HRIS) employee information management sub system are contributing to an organization's performance.
6. To locate problems, gaps, lapses, failings in the practices of HRIS and to see areas of wrong or non- implementation that hindered achievement of its predetermined objective & activities.

1.5. DEFINITIONS OF KEY TERMS

1.5.1. Human Resource Information System

Human Resource Information System is a set of people, forms, procedures and data utilized to store, analyze, distribute and use information of human resources. HRIS goal is to provide accurate information for the use of persons making human resource related decisions. HRIS are built to reduce the manual work of HR expertise (Pichault, 2007).

1.5.2. Recruitment

Recruitment is the process of discovering potential candidates for actual or anticipated organizational vacancies or, from another perspective (Mayfield *et al.*, 2003). HRIS recruitment subsystem includes information on the position name and number, the department in which the position resides, whether the position has been approved, and whether the position is full-time or part-time (Hendrickson, 2003).

1.5.3. Training

Training is a tool for improving the skills in need for the productivity and effectiveness of employees (Sambrook, 2005). HRIS training subsystem includes data on an employee's skills & competencies, training courses taken, & career planning in terms of which positions might be most appropriate for employee based on skills & competencies (Teo *et al.*, 2001).

1.5.4. Compensation Management

Compensation management is a process involves all forms of pay or rewards accrued to employees and arising from their employment. Policies on the type of increases allowable when an employee receives a promotion, data regarding pay grades and ranges for each position and bonus structure included in the HRIS compensation subsystem (Deloitte, 2006).

1.5.5. Performance Management

Performance management is the integrated process by which an organization involves its employees in improving effectiveness in the accomplishment of organizational mission and strategic goals. HRIS web based performance appraisal subsystem help the organizations quickly creates high value performance appraisal for employee (Ruona and Gibson, 2004).

1.6. SIGNIFICANCE OF THE STUDY

Human resource management is one of the most crucial aspects of an organization, which can be facilitated by HRIS functionalities. A number of vendors supply HRIS software to the market under different names and prices. Organizations spend substantial amounts to acquire and implement HRIS software. After a while, they suffer when they try to align the available HRIS functionalities with their goals. Sometime though organizations support HRIS features, they do not use all the functionalities due to poor response from the users. This research is significant for the following reason:

- ☞ It will provide the basic building blocks for HR executives and managers to better understand the essential constructs of human resource information system which leads them to design further strategies to use it efficiently.
- ☞ The findings of the study will give additional input for management of the firms in producing the paper that serve as a bench mark for further evaluation of the success and failure factor associated with HRIS implementation.
- ☞ It will indicate how HRIS could be significant to HR division of the organization in transforming the HR systems and facilitating decision making by providing accurate and timely information.
- ☞ The study would contribute to the body of knowledge by filling the existing knowledge gap in the aspects of HRIS studies by analyzing the senior HR executives' behaviors, opinions and awareness of HRIS functionalities towards integration and automation of HR department.
- ☞ It will helps readers and academicians in understanding how far the HR information system practiced in selected public sector organization by overcoming the challenges faced in the processes of implementation and practicing of the system
- ☞ It will initiate others interested researchers to carry out more extensive studies in the area.

1.7. SCOPE OF THE STUDY

HRIS user population is small since most organizations cannot afford it. Especially small organizations cannot use integrated HRIS within an affordable cost. Though, it is not possible to gather data from everybody and all organizations. Within the research, senior HR executives' perception is considered as the measurement for the practices and challenges of HRIS since they are mostly involved in HRIS.

The scope of the study is limited to the area of the HRIS subsystems such as recruitment and selection, employee information management, training and development, compensation and benefit administration and performance management and identifying the challenges organizations faced during practicing HRIS. Although there is time, money and other anticipated limitations to visit all public sectors, four public sector organizations in Addis Ababa, namely, Ethiopian Revenue and Customs Authority (ERCA), Ethio telecom, Oromia Regional Health Bureau and Ethiopian air line were visited in order to incorporate the important personnel who can provide pertinent information. The organizations were chosen on a basis of they had already implemented and were using the system.

CHAPTER TWO

LITERATURE REVIEW

2.1. INTRODUCTION

This chapter focused on the reviews of HRIS concepts and its contributions in the process of automation and integration of human resource service delivery through its various sub systems and the review was guided by the objectives that guided the study.

HRIS is employed by organizations to improve their performance by spending substantial amounts of money. This literature survey attempts to gather the existing knowledge based studies on the HRIS functional area such as recruitment and selection, training and development, performance management, compensation administrations and employee information management. The chapter also discusses the benefits of practicing HRIS; the challenges faced during implementing and practicing the systems and indicate suggested HRIS software vendors. Finally the researcher tried to review the existing empirical studies to reveal and fill the knowledge gap.

2.1.1. HISTORY OF HRIS

The Human Resource Information System (HRIS) is a system, which in recent years has become critical to the operation of HR division of large companies. Information systems in HR have evolved from the automated employee recordkeeping of the 1960s into complex reporting and decision systems of today (Deloitte, 2006).

From 1960 to 1970, major companies were in search of a centralized personnel management system. Software programs were then created in large computers to facilitate storage of data mainly for payroll purposes (DeSanctis, 1986). The Human Resource Information System, also known as Human Resource Management System, emerged as the preferred main system for managing human resource data, using the new client server technology instead of the old mainframe system (El-Kot & Leat, 2008).

By the 1980s, HRIS was equipped with new tools and capabilities that assisted the compensation scheme and helped manage manpower. The system became more sophisticated by 2000 when it became a tool for performance learning management.

In the 1990s there existed various expectations of how HRIS should have affected an organization's HR activities and business planning. Studies about advantages of using HRIS and about users of HRIS were performed. An organization was considered efficient if it had technology and IS to support HR activities (Devenport, 1998).

In the new millennium electronic services such as e-learning, e-commerce and e-business became possible and common because of the invention of World- Wide-Web (WWW) (Gardner *et al.*, 2007).

2.1.1.1. DEFINITIONS OF HRIS

Human Resource Information System is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities & organization unit characteristics (Tannenbaum, 1990).

Human Resource Management System (HRMS) or Human Resource Information System (HRIS) refers to the systems and processes at the intersection between human resource management and information technology. Human resources information system allows business processes to function productively and cost efficiently in a web-based environment by reducing paperwork (Kovach and Cathcart, 1999). The system also allows an agency real time capability to enter, update, maintain and secure employee data while adhering to policies and regulations as is the case with any complex organizational information system (Hendrickson, 2003).

An effective HRIS provides information on just about anything the company needs to track and analyze about employees, former employees, and applicants. Organizations will need to select a Human Resources Information System and customize it to meet their needs (Deloitte, 2006). With an appropriate HRIS, Human Resources staff enables employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions (Tansley *et al.*, 2001).

2.1.2. HRIS AND HR TRANSFORMATION

An effective HR transformation requires the adoption of a comprehensive human resource information management strategy. To build a more effective workforce the firm must develop a cohesive HRIS that is tightly linked to the overall business goals and objectives. Leading HR technologies are critical to executing HRIS successfully because it enables HR function to move beyond administrative activities and transactions to add value to organizations wide business processes.

HR transformation initially focused on making HR operations more efficient and effective through process standardization and technology. The next generation of HR transformation is more tightly linked to corporate strategy and to creating business value through HR services that address a company's most pressing strategic challenges (Mayfield *et al.*, 2003). HR department's role gently shifts from transaction and administration to business and strategic transformation (Beulen, 2009).

The HR information system (HRIS) element of an Enterprise Resource Planning system incorporate records for employee resources, rewards, training, etc (Morley *et al.*, 2006). Personal data on employees can potentially be used much more flexibly to transform the way people are managed within organizations and to transform the role of the HR department (Kovach and Cathcart, 1999). An integrated HRIS offers the potential for the flexible and imaginative use of stored personal data, which can in turn encourage a transformation of both the management style used and the role of the HR department (Ruona and Gibson, 2004).

The strategic role of the HR function means not only being involved in strategic planning from the outset and during the implementation phase but also matching employee resources with business needs (Panayiotopoulos *et al.*, 2005). However, this does not mean that the administrative role will cease to exist, although there is an inherent tension between the outlook required for a strategic HR role and that of the HR executives in a traditional role. Specifically, HRIS may contribute to firms' strategic positioning in a number of ways, for instance, by improving customer service levels to managers and employees and enhancing the lines of communication between the company and its employee (Ashbaugh & Miranda, 2002).

Beadles *et al.* (2005) have postulated that HRIS will be implemented at three different levels: the publishing of information; the automation of transactions; and, finally, a change in the way human resource management is conducted in the organization by transforming HR into a strategic partner with the line business. The evolution of HR as promoted by HRIS evolves from information to automation and from automation to transformation. HRIS allows the HR function to become more efficient and to provide better information for decision-making (Deloitte, 2006).

In order to analyze the practice and challenge of HRIS, HRIS users' perception towards its functionality is very important. This research study would fill the existing knowledge gap in literature regarding HRIS in Ethiopia; examine the practice of HRIS and explore the challenges public sector organization have faced during the process of implementing and practices HRIS in Addis Ababa.

2.1.3. STAGES OF ORGANIZATIONS BASED ON THEIR HRIS

The function of Human Resources departments is generally administrative and common to all organizations. Organizations may have formalized selection, evaluation, and payroll processes. Efficient and effective management of Human Capital progressed to an increasingly imperative and complex process (Pichault, 2007). The HR function consists of tracking existing employee data which traditionally includes personal histories, skills, capabilities, accomplishments and salary. To reduce the manual workload of these administrative activities, organizations began to electronically automate many of these processes by introducing specialized Human Resource Information Systems. For these systems and processes, organizations are classified in to three related with HRIS (Yang *et al.*, 2007). These are: Basic personnel system, Augmented HR system, and Comprehensive and Interactive HRIS system

2.1.3.1. Basic Personnel System

A bare-bones HRIS approach incorporating databases that may mix written records on file with other data elements stored on a computer database (Yang *et al.*, 2007). The data maintained by this focuses on the following area:

- Employee records- such as individual profile, personal information sheet, application form, employee contract etc
- Payroll-such as wage or salary, attendance, benefits data
- Staffing-such as job description for key organizational job
- Basic data required for compliance with pertinent labor legislation and etc.

2.1.3.2. Augmented HR System

Movement to the second stage, an augmented HR system, occurs when the organization decides to commit the resources to become more proactive with respect to policy decisions. A stage two set up requires the HRIS to move beyond the basic record keeping functions. In this stage, the HRIS becomes entirely computer based, and the data elements in stage one typically are augmented by a variety of information determined by a needs analysis (Hendrickson, 2003).

2.1.3.3. Comprehensive and Interactive HRIS

This type of HRIS configuration enables the HR staff to run future “what if” scenarios to determine the future policy alternative given a range of possible outcomes. As well, relational databases enable the user to customize the HR data to be investigated, thereby offering wide variety of reaches and analysis to be conducted (Deloitte, 2006). Although a comprehensive and interactive HRIS is the goal of many organizational HR planning systems, especially because of its orientation towards analysis of future scenarios and decision making options, it is not necessarily optimal for all organizations. Relatively few companies have evolved to the stage-three setup of a comprehensive and interactive HRIS (Panayiotopoulos *et al.*, 2005).

2.1.4. USER OF HRIS APPLICATIONS

HRIS meet the needs of a number of organizational stakeholders. According to Beadles *et al.* 2005, people in the firm who interact with HRIS are segmented into three groups:

- (1) **HR professionals**
- (2) **Managers in functional areas (production, marketing, IT etc.)**
- (3) **Employees.**

HR professionals rely on the HRIS in fulfilling job functions (regulatory reporting and compliance, compensation analysis, payroll, pension, and profit sharing administration, skill inventory, benefits administration etc.). Thus, for the HR professional there is an increasing reliance on the HRIS to fulfill job task (Devenport, 1998). As human capital plays a larger role in competitive advantage, functional managers expect the HRIS to provide functionality to meet the unit's goals & objectives. Moreover, managers rely on the HRIS's capabilities to provide superior data collection & analysis (Yang *et al.*, 2007).

Individual employees become end users of many HRIS applications. The increased complexity of employee benefit options and the corresponding need to monitor and modify category selections more frequently has increased the awareness of HRIS functionality among employees (Ashbaugh & Miranda, 2002). Additionally, it also includes skill testing, assessment and development, résumé processing, recruitment and retention, team and project management, & management development (Williams, 1997).

2.1.5. BENEFITS OF HRIS

In modern era, human resources information system (HRIS) is a fully automated system, primarily consisting of employee information management, payroll processing, performance appraisal, training & development and recruitment management. HR need for integrating data across departments, bringing in transparency of information & data integrity for improving productivity (Kovac and Cathcart, 1999). Functional HRIS create an information system that enables an assimilation of policies and procedures used to manage the firm's human capital as well as the procedure necessary to operate the computer applications (Hendrickson, 2003). Some of the HRIS benefits include:

2.1.5.1. Increasing Efficiency

Rapid computing technology has allowed more transactions to occur with fewer fixed resources. Typical examples are payroll, flexible benefits administration, and health benefits processing (Gardner *et al.*, 2007). Though technologies of early mainframes provided significant efficiencies in these areas, the difference is that the record processing efficiencies that were once only available to large firms are now readily available to any organization size (Morley *et al.*, 2006).

2.1.5.2. Increasing Effectiveness

Most often, computer technology is designed to improve effectiveness either by in terms of the accuracy of information or by using the technology to simplify the process. This is especially the case where large data sets require reconciliation (Savage, 1996). Using computer technology ensures accurate results and offer substantial simplification over manual processing. Consequently, the vast majority of HR functions have some degree of automation applied in order to gain both efficiency & effectiveness (Reddic, 2009).

2.1.5.3. Data entry cost reduction

When data is entered at one place and used by different departments, the clerical cost associated with data entry in other departments is reduced. Without HRIS, different departments have to use different applications and have to enter the same data number of times which would increase the cost associated with data entry (Ulrich, 2001). By eliminating both duplicate data entry and associated errors, the bottom line also increases as the expenses are reduced.

2.1.5.4. Strategic Alignment

Information from the system can help organizations align HR activities more effectively with their strategic plan (Panayiotopoulos *et al.*, 2005). if the organization's plan was to enter into a new market and it required a certain number of certain types of employees, the data from the system can tell management whether it has these employees, and if not, when they are expected to be hired (Hendrickson, 2003).

2.1.5.5. Enhancing Decision Making

The ability to extract data from the HRIS and use these data not just to create information but also to improve the quality of management decisions has become increasingly important (Stacey, 2007). HRIS can access a data warehouse, or central repository for all the data collected by firm's business systems (Tansley *et al.*, 2001).

2.1.6. SUBSYSTEMS OF HRIS

There are several different components, called subsystems, which compose an HRIS. They are employee administration, recruitment, time and attendance, training and development, performance evaluation, compensation and benefits administration, organizational management, and health and safety (Deloitte, 2006).

2.1.6.1. Employee Administration Subsystem

A basic component of an HRIS system is its administrative function. The typical information that would find in an HRIS system for each employee would include hire date, name, address, telephone, e-mail address, birth date, sex, salary, emergency contact information. Department code, location, employment status (full-time, part-time, or contract), the start date of each position held, position titles, and benefit information also included in this subsystem (Mayfield *et al.*, 2003).

2.1.6.2. Recruitment Subsystem

This subsystem includes information on the position name and number, the department in which the position resides, whether the position has been approved, and whether the position is full-time or part-time. In some cases, online forms will be available so that applicants can be tracked and resumes can be scanned for key words to identify skills and experience (Beulen, 2009).

E-recruitment is a comprehensive online solution to the organization recruiting needs. Scalable for large organizations, recruitment management system provides natural recruitment work flow that takes through the recruitment process, while tracking details for later analysis. E-Recruitment system increases the efficiency of recruitment process (Ruona and Gibson, 2004). Darrag *et al.* (2010) define recruitment as the process of discovering potential candidates for actual or anticipated firm's vacancies or, from another perspective, it is a link activity bringing together those with jobs to fill & those seeking jobs.

The process of recruitment begin with advertising vacancies, this may be done internally or externally or both and can be achieved using a range of media, which may involve using the organization web site. The use of the Internet for recruitment purposes has become very popular (Tansley et al., 2001). However, there are different levels of technical sophistication found among organizations in relation to the use of new technology in selection.

According to El-Kot and Leat (2008), there is a range of selection practices that may be used including: applications forms, curriculum vitae, one-to-one and panel interviews, psychometric testing, assessment centers, job trials, job specific aptitude or knowledge tests, graphology, group-based activities and references. Darrag *et al.* (2010) have studied recruitment and selection methods in detail and they have focused their attention on how new technology could enhance and strengthen the recruitment and selection process of an organization. The results of the modules are to robust e-recruitment, manages job descriptions and job vacancies, search for candidates and the interview process. It is also referred to as an applicant tracking system; the web-based application that enables the electronic handling of organizational employment needs. These activities include posting job advertisement on web sites to stimulate and attract candidates, known as job boards. Job boards allow candidates to apply on-line and the candidates' data are stored on a database that allows screening and filtering of applications (Hendrickson, 2003).

2.1.6.3. Training and Development Subsystem

This subsystem includes data on an employee's skills and competencies, training courses taken, costs of courses, developmental activities, and career planning in terms of which positions might be most appropriate for an employee based on skills and competencies (Sambrook, 2005).

Training and development could no longer be based on the good will of the senior employee to train subordinates (Panayiotopoulos *et al.*, 2005). The training and development intervention needed to be carefully designed and implemented and linked to organizational goals and strategy, for the training investment to pay off. Glaveli and Kufidu (2005) said that the training and development function is essential for changing behavior and culture and reinforcing the new behavior and culture. Training was the tool for enhancing the knowledge

of employees on the new employee role and expectations and the services and products offered through induction courses. Training was also a tool for improving the skills in need (sales skills, communication skills, service skills, etc.), the productivity and effectiveness of employees (Gardner *et al.*, 2007). There are differences between training & development practices relative to organization size, and small firms face unique barriers, including access to, time for, and the cost of training (Pichault, 2007).

E-training provides a complete open infrastructure that allows organizations to manage, deliver, and track employee training participation in on-line or classroom based environments. Managers set the business flow from order processing to delivery and performance management to training output automatically. E-training systems deploy content to global learners; make use of mixed media and multiple discrete sites on a single instance of the application, define competencies attained by trainees, and update the trainees' competency profiles (Lengnick-Hall and Moritz 2003).

2.1.6.4. Performance Management Subsystem

This subsystem includes information regarding performance appraisal ratings, the date these ratings were received, the type of appraisals that were used, comments about the appraisal, and performance objectives and goals (Savage, 1996). HRIS includes web based performance appraisal subsystem that helps the organizations quickly create high value performance appraisals for all employees. It's a powerful, easy to use tool for cultivating high performance workforce that is completely aligned with the organization's goals and priorities. HRIS is an innovative, cutting edge solution to manage employee performance appraisals (Rodriguez and Ventura, 2003).

Performance management is an integral part of this capability and allows managers and employees to monitor, schedule and complete the review process on line. In today's corporate world human resources has come to play a very critical role in a business. Whether it concerns the hiring and firing of employees or whether it concerns employee motivation, the Human Resources department of any organization now enjoys a very central role in not only formulating company policies (El-Kot and Leat, 2008). A complete HRIS links all human resources data from the time professionals enter pre service training to when they leave the

workforce. Continuous monitoring and evaluation is vital in determining what an HRIS is accomplishing, what needs to be improved and whether results are being achieved (Williams, 1997).

Performance appraisal defined as any procedure that involves setting work standards, assessing employee's actual performance relative to the standards, and providing feedback to the employee with the aim of motivating the worker to eliminate performance deficiencies or to continue to perform effectively (Darrag *et al.*, 2010). According to Purcell *et al.*, 2003, processes in performance appraisal contain three steps: defining performance expectations, appraising performance, & providing feedback.

2.1.6.5. Compensation and Benefits Administration Subsystem

Information regarding the company's compensation and benefits plans and the policies relating to these plans are found in this subsystem. Policies on the type of increases allowable when an employee receives a promotion, data regarding pay grades and ranges for each position, positions that are entitled to a bonus and bonus structure could be included (Mayfield *et al.*, 2003). An HRIS system allows a business to streamline the administration of employee benefits. In many cases, employees and new hires may electronically enroll in benefit plans. They may also have the capability of logging onto the system to monitor and update their current coverage throughout the year, changing status, dependent information and contact data as required. A self-service system allows for benefits to be efficiently administered with as little manpower as possible, saving an organizations time and money (Deloitte, 2006).

Employee compensation involves all forms of pay or rewards accrued to employees and arising from their employment. This however consists of two main components: direct financial payments, and indirect payments (Hendrickson, 2003). While direct financial payments are in the form of wages, salaries, incentives, commissions, and bonuses, indirect payments are in the form of financial benefits like employer-paid insurance and vacations. Benefits are indirect financial payments given to employees. These may include supplementary health and life insurance, vacation, pension, education plans, and discounts on company products (Gardner *et al.*, 2007).

2.1.7. COMPARISON OF TRADITIONAL HR TO HRIS

Table: 2.1. Comparison of Traditional HR to HRIS

KEY HR PROCESSES	TRADITIONAL HR	HRIS
Recruitment	-Paper resume & paper posting -Position filled in month -Limited by geographical location	-Electronic resume and internet posting -Positions filled in weeks or days -Unlimited access to global applicant
Selection	-Cost directed at attraction -Manual review of resume	-Cost directed at selecting -Electronic review of resume (scanning)
Performance Evaluation	-Supervisor evaluation -Face to face appraisal	-360 degree evaluation -Appraisal software
Compensation and Benefit	-Time spent on paperwork (benefit changes) -Emphasize on salaries & bonuses -Change made by HR	-Time spent on assessing market salary -Emphasis on ownership & quality of life -Knowledgeable employee -Change made by employee online
Training & Development	-Standardized classroom training -Development process is HR driven	-Flexible on line training -Development process employee driven
Career Management	-HR lays out career paths -Reactive decision -Personal networking (local area)	-Employee manage their career with HR -Proactive planning with technology -Electronic and personal networking
Employee Relations	-Focus on employee-mgt relations -Strong Union presence -Equal employment opportunity -Task performance monitoring	-Focus on employee-employee relations -Weak Union presence -Intellectual property & data security -Use of technology monitoring
Retention Strategy	-Not a major focal point	-Online employee opinion survey -The critical HR activities currently -Cultivating effective company culture
Work/Family balance	-Not a major focal point	-Development & monitoring of program -Erosion of work/home boundaries

Source:- Lengnick-Hall and Moritz, 2003

2.1.8. CHALLENGES OF PRACTICING HRIS

2.1.8.1. Resistance by Employers and Employees

Employers and employees resist HRIS as they view that it increases the work load of employees & preparing programme for securing the human resources require more skill & facilities including development. The other reason for their resistance is that HRIS aims at controlling employees' thorough productivity maximization (Yang *et al.*, 2007).

2.1.8.2. Lack of Training

Lack of training in existing hardware/software and related technologies and inadequate education regarding new developments in Information System are critical barriers to success. Training needs occur at two levels in the organizations: firstly is the training and development of Information System staff, and secondly training and education of user department personnel in appropriate technologies (Teo *et al.*, 2001).

2.1.8.3. Lack of Funding

Funding is a problem in two areas in the organizations. The first is lack of funding to acquire, update, and maintain critical HRIS and new technologies; and the second is the specific funding opportunities that create uneven or inappropriate investment in particular technologies especially in donor funded organizations (Gardner *et al.*, 2007).

2.1.8.4. Poor ICT Infrastructure

It is expensive to build an infrastructure and to maintain the equipment update. Likewise, there is low connectivity in the third world countries where the communication bandwidth is slow and access to the internet, the job portal and downloading application forms is a problem (Kovach and Cathcart, 1999). The overall Network connectivity continues to pose a challenge especially in the rural areas.

2.1.8.5. Information Insecurity

The challenge is to keep information protected all the time from being accessed by unauthorized persons, system hackers, web spam and document viruses. There are inadequate technical and operational skills within the Public service and levels of computer literacy of users are very low (Reddic, 2009).

2.1.9. STAGES OF HRIS IMPLIMENTATION

Organizations can decide if they want to purchase a system that brings “best practice” or, alternatively, they can purchase a system and customize the software to fit their existing processes (Mayfield *et al.*, 2003). Organizations are different in terms of their information needs, their existing technology, size and culture of the organization, and the human resources available to devote to a technology upgrade. A company may need a simple system that captures time card and payroll information or it may need a very sophisticated system. According to Ashbaugh & Miranda, 2002, organizations follow process to select HRIS. These are: - adoption phase, implementation and Institutionalization phase.

2.1.9.1. Adoption Phase

In this phase, organizations typically engage in a needs analysis to determine what type of system they will purchase. A needs analysis helps the organization decide on what the system should be capable of doing and what the technical specifications will be, and helps the organization develop an information policy about how the information should be managed with respect to storage and access (Haines and Petit, 1997). Additionally, a needs analysis will provide the firms with a frame work to evaluate vendors of software.

2.1.9.2. Implementation Phase

In this phase, the company selects a project team. This team typically comprises consultants who have the knowledge and expertise on the technical side and also expertise in change management to help the organization with the implementation (Rodriguez and Ventura, 2003). The activities involved in this phase focus on getting the system up and running within a controlled environment so that the system can be tested to ensure it is functioning as the organization requires (Ashbaugh & Miranda, 2002).

2.1.9.3. Institutionalization Phase

The final step in implementing an HRIS is to train the users on the system. The organization’s goal is to use the system and reap the benefits identified through the needs analysis. However, many difficulties can arise with the implementation of a new system. As with any change, people need to become comfortable and trained to use the system efficiently (Williams, 1997).

2.1.10. MODELS OF HRIS

2.1.10.1. Hyde-Shafritz Model

Albert C. Hyde and Jay M. Shafritz were among the first to attempt a conceptual framework for the HRIS (McLeod and Anctis, 2001). In 1997 journal article, they identified sixteen database modules, which were integrated in that they had the capability of exchanging data (McLeod and Anctis, 1995). It was a very primary model, which listed the modules as sixteen inputs and outputs (Figure 2.1).

Both position and person data are entered into the HRIS to enable management to perform the planning function. The HRIS produces reports organized along the lines of the modules, which facilitate accountability. A feedback loop enables the objectives to be modified to reflect actual performance. This is a typical closed-loop systems model, consisting of input, processing, output, and feedback loop (McLeod and Anctis, 1995).

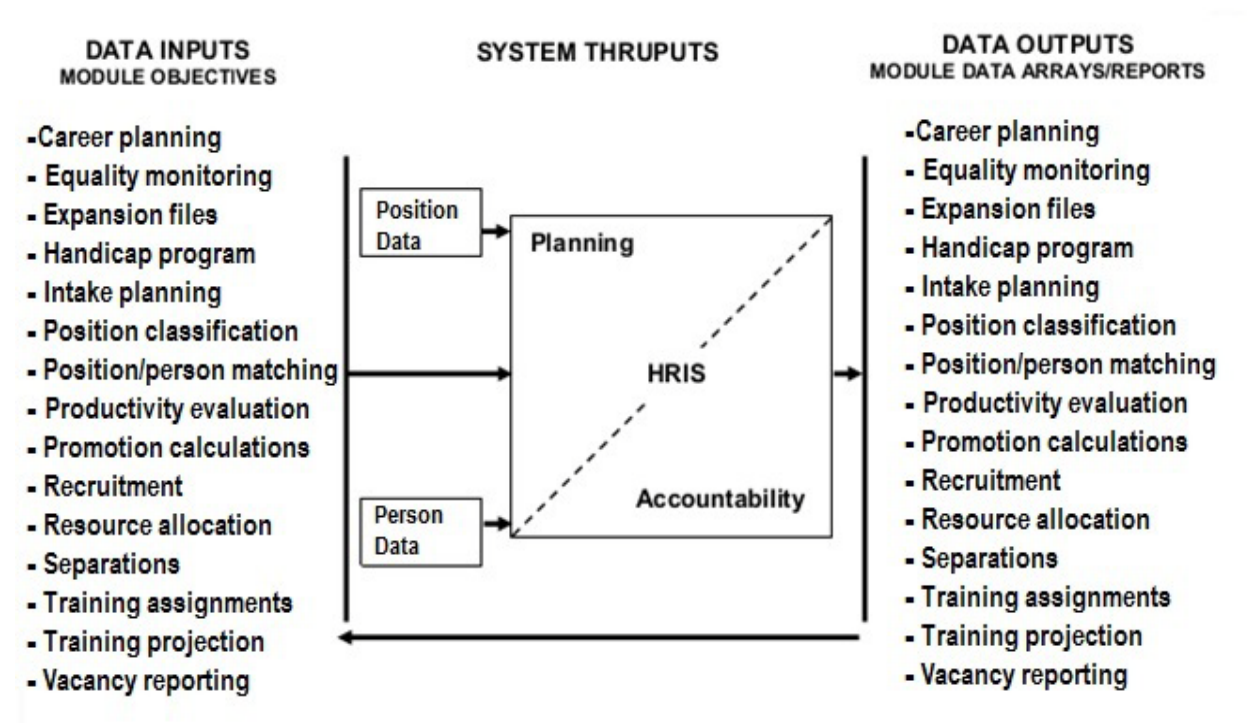


Figure: 2.1. Hyde-Shafritz HRIS Model

Source: McLeod and Anctis, 1995 pp. 76

2.1.10.2. The Manzini-Gridley HRIS Model

Andrew Manzini and John D. Gridley viewed the HRIS in terms of interfaces with a corporate human resources database. According to this model, users interface with the system by means of on-line devices, such as PCs or terminals, and receive outputs in the form of hardcopy reports and responses to ad hoc queries (De Lone and McLean, 2003). An administrative function called HRIC (Human Resources Information Centre) exists within HR for the purpose of assisting users, providing database security, and enforcing privacy controls. This model was a much improved model than the earlier models since it consisted of ad hoc queries.

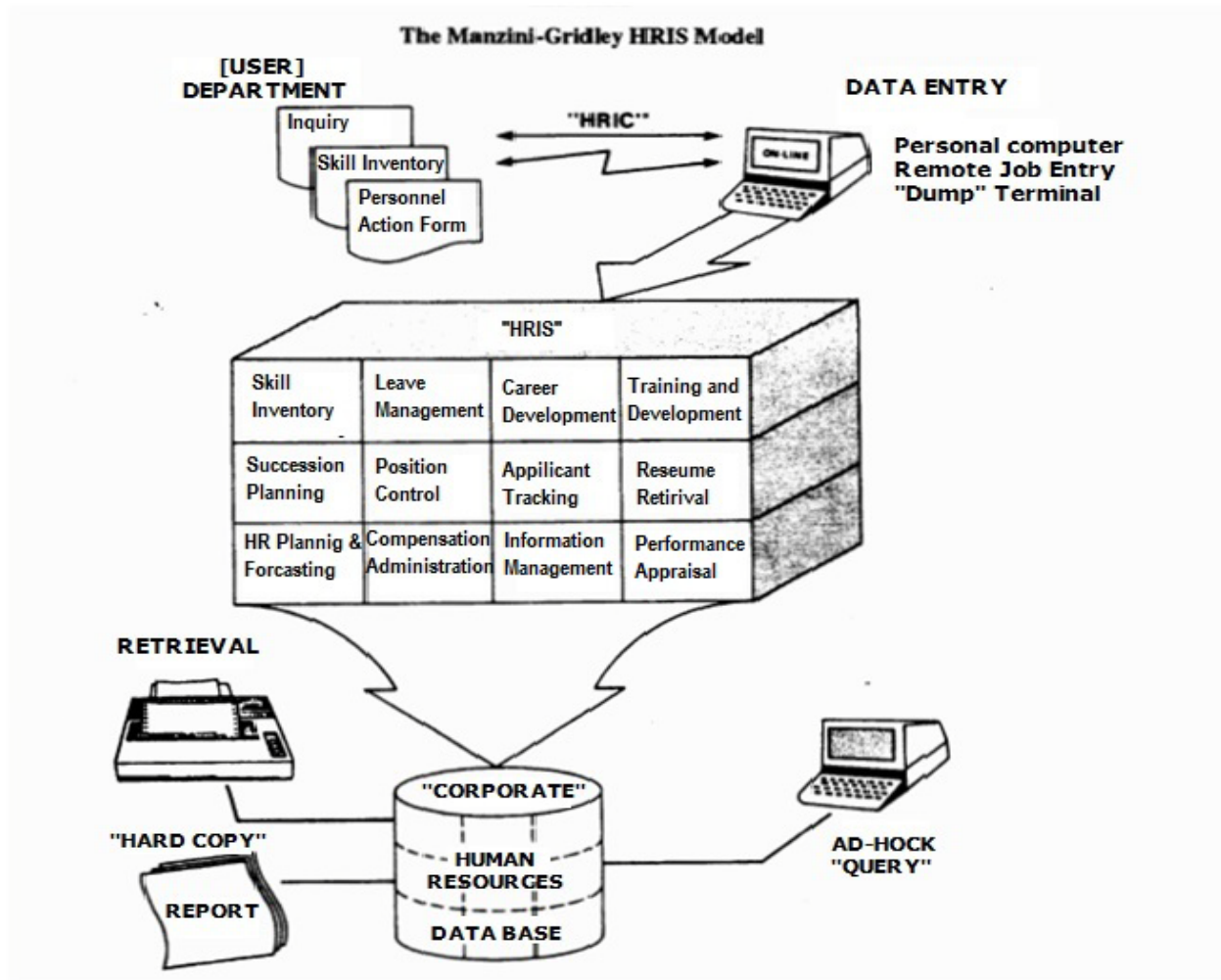


Figure: 2.2. Manzini-Gridley HRIS Model

Source: De Lone and McLean, 2003 pp. 61

2.1.10.3. The Components of Resource-Flow HRIS Model

The resource-flow model illustrated in Figure 2.3 consists of three subsystems devoted to data input, a HRIS database, and six subsystems devoted to transforming the data into information and making it available to users. The input data obtained from both internal and environmental sources, and the users consist of individuals and organizations both inside and outside the firm. This model was presented by McLeod and Anciales in 1995.

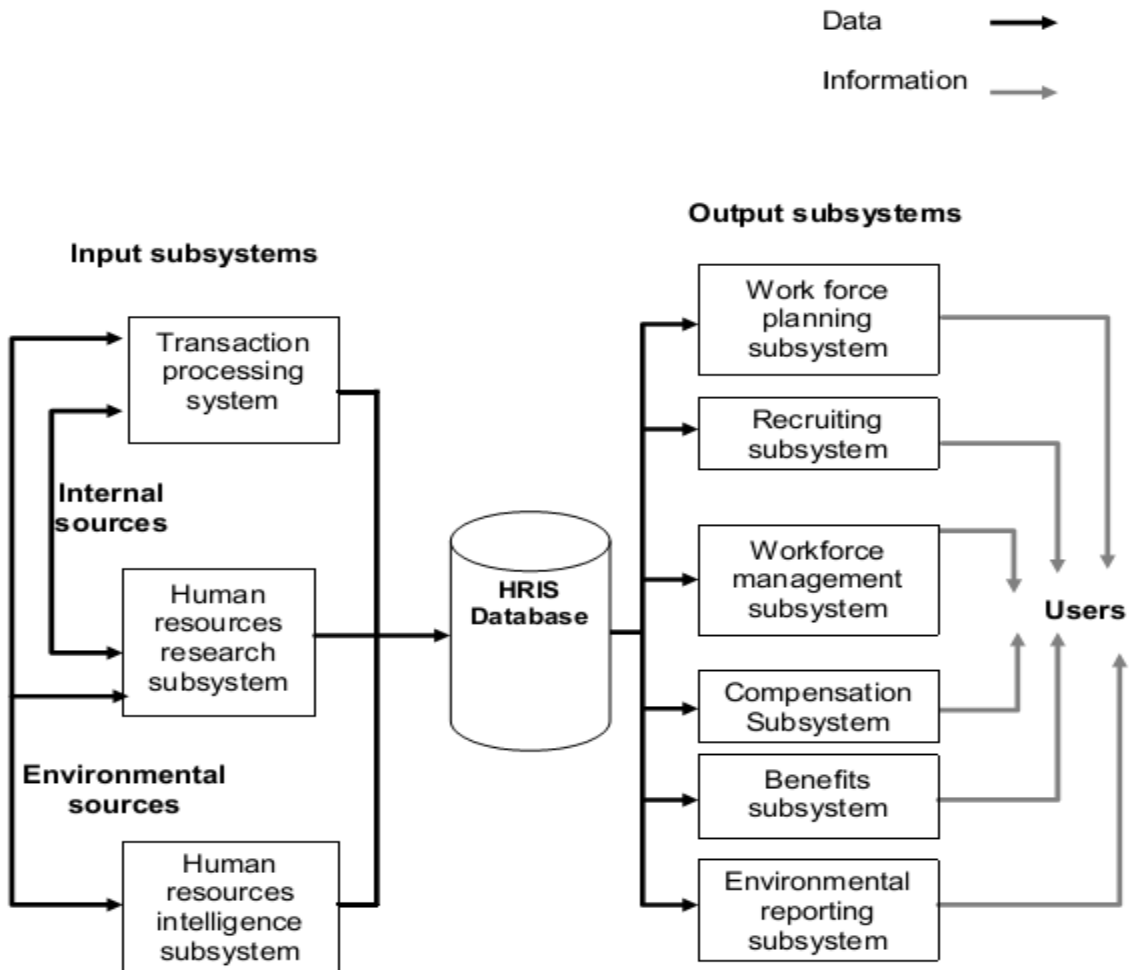


Figure: 2.3. Components of a Resource-Flow Model of a HRIS

Source: McLeod and Schell, 1998, pp. 80

2.2. REVIEWS OF EMPIRICAL LITERATURE

The size of organization determines HRIS usage, the type of module it adopts, and how information is analyzed. In addition, certain core subsystems for example employee administration precedes over others like training and administration. Similarly, new HRIS users normally opt for low cost solutions. In-house database development is a trendy option for smaller organization adopting HRIS for the first time (Ball, 2000). This was also in line with Kovach and Cathcart (1999) observations that smaller organization would go for low cost and low risk HRIS purchases, typically cheaper, more software that was flexible or in house HRIS development.

HRIS defined as integration between human resource management (HRM) and Information Technology. These information systems increase administrative efficiency and produce report capable of improving decision making (Udani, 2009). Hussain *et al.*, (2006), observed in their research ‘The use and impact of human resource information systems on human resource management professionals’ that, few differences existed between small and large organization HRIS’ usage, and that specific use of HRIS for strategic collaboration enhanced professional standing.

Many studies cited HRIS benefits, such as the improvement in accuracy, the cost saving and the timely and quick access to information through HR reports (Panayiotopoulos *et al.*, 2005). In HR, reports can be generated from data input into a HRIS database via previously programmed report generators, thereby making transparent HR collective data from the aggregation of the personal data actually input (Tansley *et al.*, 2001). Hendrickson (2003) studied how HRIS reduced the cost of an organization & how it maintained customer satisfaction, improved quality, and innovations.

HRIS was not only designed to automate HRM activities to gain administrative advantages; rather, it could also be used for decision making to provide strategic advantages for companies (Gardner *et al.*, 2007). The key element in the support HRIS provides for the company’s HR strategy is the availability of information as input for HR relating decision making processes (Reddic, 2009). Ngai and Wat (2006) listed benefits of HRIS: increases competitiveness by improving HR operations, shifts the focus of HR from the processing of

transactions to strategic HRM, makes employees part of HRIS and reengineers the entire HR function of companies.

Ngai and Wat (2006) concluded that cost of adopting, operating and maintaining the HRIS is relatively high. Cost created barriers and kept HRIS away from small organizations. Same issues caused the lack of attention given to develop and enjoy sophisticated benefits of HRIS. Deloitte (2006) say that HRIS may create resistance from employees due to emotional resistance to change or use technology due to learning difficulties, and fear of measures taken to ensure the security of information.

Moreover, Buckley *et al.*, (2004) in their study ‘The use of an automated employment recruiting and screening system for temporary professional employees’: A case study, showed conservative savings due to reduced employee turnover, reduced staffing costs, and increased hiring-process efficiencies. The researchers revealed a cumulative savings yielded a return on investment and that was attributable to the use of an HRIS.

Furthermore, Gardner *et al.*, (2003), in their research work ‘Virtual HR: the impact of information technology on human resource professional’ investigated the extensive use IT influence on jobs in one professional occupational segment, human resources (HR). They concluded that extensive use of IT enabled HR professional to have more information autonomy, and it is positively associated with HR professional spending and a more time on IT support activities.

Tansley *et al.*, (2001) examined the move towards HRM style practices in organizations that had developed HRIS as an opportunity structure that could enable a break with the past. They found the case evidence contrary to case company’s mission statement, which suggested that the introduction of the HR system could potentially provide the stimulus to effect the required change in employee management practices.

HRIS implementation is costly and requires careful planning and vivid examination of various critical success factors (Brown, 2002). Hendrickson (2003), in support of this asserts that the size of a company might have an impact on the achievement of a number of benefits and on the obstacles faced when implementing HRIS. Again, top management support was one of the most important factors in successful implementation of HRIS.

Kovach and Cathcart (1999) mentioned that lack of top management support, funds, HR knowledge of system designers and HR solutions are the main factors that keep organizations away from HRIS. A research conducted by the Institute of Management and Administration (2002) indicated the challenges in managing a HRIS include: lack of staff; lack of budget; problems with time management; need to work with other departments; and lack of information technology (IT) support. Tansley *et al.* (2001) found costs to be the main barrier to the implementation of HRIS.

Tye and Chau, (1995) realized that conditions in the firm's external and internal environment might enable or constrain the capacity of HR systems to develop and exploit organizational competencies. HRIS' role of integrating human resource management (HRM) and Information Technology, which leads to competitive advantage, has attracted many HR professionals and managers. HRIS usages have increased markedly among firms of different sizes due to their enhancing strategic role in human resource management (Teo *et al.*, 2001). HR Systems however do not adequately meet important business needs. Moreover, it takes too long to implement, and sometimes exceed expected costs due to lack of clarity and common understanding. However, a painstaking of HRIS will yield favorable results, especially if certain critical factors are considered (Mayfield *et al.*, 2003).

Ball (2001) identified two fundamental differences between small and large firms when purchasing HRIS: cost and risk. Small firms cannot afford advance HRIS Systems (i.e. SAP, oracle) due to cost. The risk of implementing new software was high for small organizations. They needed longer time to develop HRIS to have more sophisticated facilities. Martinson (1994) as cited by Ball (2001) showed that small organizations have a lesser possibility of implementing HRIS due to lack of funds. However, Ball (2001) foresaw suitable HRIS systems for small organizations though they did not facilitate all the features that large organizations gain. He states that the small business sector is seen as a growth area by some HRIS software vendors who prefer flexible, low-cost, genetic, windows-based products. Recent practitioner literature examining the use of HRIS in organizations advanced the view that the issues they face regarding HRIS uses are slightly different to their counterparts, yet research in HRIS to date is oriented to the larger organization (Lengnick-Hall and Moritz 2003).

2.3. HRIS SOFTWARE VENDORS PROFILE

There is more than 140 human resources information system software being offered by more than 100 vendors in the world. A recent survey indicated that overall costs of system implementation ranged from US\$1000 to US\$ 12 million. Human resources information systems (HRIS) can be defined as integrated systems used to gather, store, and analyze information regarding organization's human resource.

2.3.1. Oracle



Oracle Corporation is a U.S based computer technology provider. Oracle offer a number of business software solutions including HRIS. HRIS products offered by Oracle include Fusion HCM, E-Business Suite HCM, PeopleSoft HCM, JD Edwards Enterprise One HCM and JD Edwards World HCM. The software solutions are offered with number of deployment options including cloud, hosted & installed systems.

Support is offered for Oracle HRIS products through premier support which includes 24/5 technical support, support resources and product updates. Training is available for Oracle HRIS products through the Oracle University which offers classroom training, live virtual class, training on-demand, self-study courses and private events and 99% of users of this training would recommend the training to others.

2.3.2. SAP



SAP is a leading global provider of business software including HRIS software. SAP HCM provides businesses with a fully integrated HRIS solution with a wide range of core HR & payroll functionality. The analytics, HR planning and cloud functionality of SAP HCM was boosted due to acquisition of business execution cloud software provider Success Factors.

As the largest enterprise application vendor, SAP offers a mature HRIS solution that has substantial adoption among its global ERP customer base. SAP will draw on its substantial

technology resource like in memory computing, cloud, analytics, and mobile to innovate its product around the edges, but needs to step up efforts to enrich its user experience and business configuration flexibility in order to remain a leader in this category. The pending acquisition of success factors will help SAP supplement its core HRIS with best of breed capabilities in talent and learning management.

SAP offers a number of support plans including Enterprise Support, Standard Support, Max Attention and Active Embedded. All of these support plans include updates to systems, incident support, remote guidance in special situations and knowledge resources. SAP also offers training for its HRIS solution including live instruction, eLearning, virtual live classrooms, SAP e Academy, online knowledge products and the SAP mobile training app. SAP HCM - Integrated HRIS solution provided through on premise, on-demand and on-device platforms to organizations & mid-sized businesses.

2.3.3. EPICOR



Business software vendors Epicor, offer Epicor HCM software a standalone Human Resource Information System (HRIS). Based in Dublin, California, Epicor has over 40 years of experience serving small, mid-sized and large organizations. Epicor provides support for Epicor HCM through 14 support centers located around the world with over 350 dedicated support staff. Customers of Epicor also have access to EPICweb. EPICweb provides clients with access to information, resources, services which include a knowledge base, product documentation and online forums. Training provided by Epicor includes on-site and remote classroom training, eLearning resources, user conferences and technical & end-user reference guides.

2.3.4. Sage



The Sage Group is a global provider of business management software with over 6 million customers across 24 countries. The company's Sage HRIS product, originally Sage Abra, is a fully integrated HR & payroll solution. Sage provides customer support for their Sage HRIS system through a variety of support plans. These incorporate telephone support, online support and live chat support. Sage also have a resource center available to clients which includes product feature sheets, HR best practices and tools, blog posts, webcasts and demos. Sage HRIS targeted towards large and mid-sized businesses.

2.3.5. Workday



Workday is a provider of HR and finance cloud HRIS. Founded in 2005, Workday delivers HRIS through the company's human capital management (HCM) and payroll management systems. This HRIS solution is targeted towards businesses ranging from mid-sized companies to Fortune enterprises (www.workday.com).

Support for Workday HRIS is available through 24/7 online access to experts in payroll, benefits, compensation, accounting and more. Product patches are applied across the multitenant landscape, ensuring a perpetual elimination of product issues. This multi-tenant system also develops a community, through which businesses and employees can connect and collaborate to share knowledge and resources. Workday HCM - Cloud-based, integrated HRIS software suite targeted at mid-sized to large enterprises.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1. INTRODUCTION

This chapter presents the research methods. It deals specifically on the research design, sampling procedure, time horizon, data collection methods, and method of data analysis in order to develop methodology to address research questions.

3.2. RESEARCH DESIGN

Research strategy was developed to plan and answer the research questions. The research design of this study is Descriptive. Descriptive researches are those studies which are concerned with describing the characteristics of a particular individual, or of group and it includes surveys and fact-findings enquire of different kinds (Sekaran, 2003). Due to the nature of the research and to achieve the specific and general objectives of the study, quantitative and qualitative methods were used to analyze the collected data. This research study was an academic research, which had to be completed with limited available resources: both time and money. Therefore Survey strategy used to collect large amount of data using a questionnaire from a sample population in a highly economical way.

3.3. POPULATION AND SAMPLING TECHNIQUES

HRIS user population is restricted to large scale organizations due to implementation and maintaining cost, lack of knowledge, technical problems, etc. Selected public sector organizations in Addis Ababa are the population of the study. This comprised the Human Resource Managers and Human Resource Executives. These were considered relevant because they are the ones who are acquainted with the information needed on the topic under discussion.

Although there is time and other anticipated limitations to visit all public sectors, the researcher was attempted to visit four public sector organizations in Addis Ababa, namely, Ethiopian Revenue and Customs Authority (ERCA), Ethio telecom, Oromia regional health

bureau and Ethiopian air line in order to incorporate the important personnel who can provide pertinent information.

A total sample of 96 was used in this study and 65 feedback received were analyzed. A non-probability Purposive sampling technique was adapted and used to select the HR managers and executives of the organizations with the required information for the study.

Table 3.1 The numbers of feedback received from each of public sector organizations

Public Sector Organizations		Senior HR Executives [Who uses HRIS]	Feedback Received	Response Rate
1.	Ethiopian Air line	35	21	60
2.	Ethiopian Revenue and Custom Authority [ERCA]	20	13	65
3.	Oromia Regional Health Bureau	15	11	73.3
4.	Ethio Telecom	26	20	76.9
	Total	96	65	67.7

3.4. DATA COLLECTION METHODS

3.4.1. Primary Data

Primary data are those that are gathered for a specific purpose or for a specific research project. In this research the information were collected through a structured questionnaire and interview. The primary data frequently gives the detailed definitions of terms and statistical units used in the study. These are usually broken down into finer classifications.

3.4.1.1. Semi-structured Interview

The pilot survey was done with head of HR departments using semi-structured interview to clarify the research arena. After identifying the research area, questionnaire was designed to address research questions in order to collect primary data for further analysis. According to the view of experts, senior HR executives were chosen since they are mostly dealing with organizational HRIS.

3.4.1.2. Questionnaire

Questionnaire provided an efficient way of collecting responses from a large sample prior to quantitative analysis. Questionnaire was self distributed to the participants and Respondents were senior HR executives involved in HRIS practice. Questionnaire consisted of scale questions to collect opinions. Five point Likert-style rating scale (1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree) was used when designing the questionnaire.

Questionnaire was the first option for data collection. It allows a chance to get data easily from the respondents. A survey guarantees the same starting points for all participants and it allows a chance to plan questions beforehand. A survey is easy to proceed and it is easy for the respondents to reply. Few disadvantages are that respondents might understand questions in a wrong way and give narrow answers. In addition, it is easy to analyze the questions but on the other hand there might be some misunderstandings by the respondents. The questionnaire was thoroughly planned and pretested with test employees.

3.4.1.2.2. Questionnaire Structure

The questionnaires are based on six main sections; The first questionnaire sections includes statements on the function of HRIS in recruitment and selection to find out how efficiently and effectively does the HRIS recruiting subsystem contribute to HR division. The second section consists of statements on the role of HRIS in training and development to find out how does the training and development subsystem of HRIS contributes effectively to HR department. The third section includes questions about the HRIS performance management subsystem contribution to HR division. The fourth section consist questions on HRIS

compensation and benefit subsystems practices. The Fifth section includes statements on HRIS employee information subsystem. The final section outline statements on the challenges organizations faced during HRIS adoption and practice.

3.4.2. Secondary Data

The secondary sources of data was come from published articles from social science journals, books, theses, reports, websites and related studies on human resource information system. Acquiring secondary data are more convenient to use because they are already condensed and organised. Moreover, analysis and interpretation are done more easily.

3.4.2.1. Organizations Annual Reports Reviews

In this study, secondary data was also collected using organizational annual reports, books and information reviews. Annual reports such as company investments on HRIS report, HRIS documented policies, systems, process and employment records was used. HRIS reports sent to various departments and their inspection report have provided enough information for assessing organizations' current HRIS practices and used to cross-reference the responses of employee.

3.4.3. Validity and Reliability

A pilot survey was done with four HR head using semi structured interview. According to their answers, the questions were fine tuned and further tested using HRIS expert and academicians. Therefore, respondents had no problems in answering the questions enabling to obtain some assessment of the questions' validity of the data. There was a remark column in order to add respondent's comment if they want. The reliability of the questionnaires was improved through pre-testing of pilot samples from the HR managers and executives. This enabled the re-phrasing of some questions.

Furthermore, reliability of the scales was done with the application of the Cronbach Coefficient Alpha for the computations so as to check for the internal consistency of the scales.

Table: 3.2. Reliability of Scales

OBJECTIVES		Cronbach Coefficient Alpha value
1	The current HRIS recruitment subsystem practice automate and facilitates the function of HR department of the organizations	.872
2	Training subsystem of HRIS improve systems and support HR division in providing the highest quality of service to employees.	.785
3	HRIS performance management sub system of firms improve & introduces possible ways for HR division further improvement	.798
4	Effective utilization of HRIS compensation subsystem results successful HR division within the organizations	.896
5	HRIS employee information management sub system is contributing efficiently to an organization's performance.	.833
6	Challenges of Practicing Human Resource Information Systems	.918

Source: primary data, July 2013

The table above displays the reliability coefficients for all constructs used in the study. All alpha reliabilities (α) for all scales were above 0.7, ranging from .785 to .918. Therefore it meets acceptance standards for the research (Sekram, 2003).

3.5. PROCEDURES OF DATA COLLECTION

Within the study, first, the pilot survey was done with four Heads of HR of selected organizations using semi-structured interview to clarify the research arena. Their experiences, knowledge, personal views on HRIS were documented. After identifying the research arena, questionnaire was designed and developed to address research questions in order to collect primary data for further analysis.

The questionnaire cover the areas of HRIS functions such as recruitment and selection, performance management system, compensation & benefits, training and development, employee information management & others.

Once the lists of questions were developed, evaluation of the current HRIS practices and documents that support the responses of questionnaires was done. HRIS policies, systems, process, employment records, HRIS reports sent to various departments and their inspection report were provide enough material for assessing the current HRIS practices of the organizations.

After collecting the information, analysis was done to indicate towards strengths and opportunities for HRIS improvement. Analysis was shown areas that are strong and weak. Analyzing the outcomes became helpful for drawing possible recommendations about overall HR division performance against the HRIS practice.

3.6. METHODS OF DATA ANALYSIS

Senior HR executives were involved in the research study. The study was based on four different public sector organizations: Ethiopian Revenue and Customs Authority (ERCA), Ethio telecom, Ethiopian air line, and Oromia regional health bureau.

The data collected through the questionnaires and interview were grouped according to themes and then converted to statistical packages for analysis and interpretation. The goals are to integrate themes and concepts into a theory that offers an accurate, detailed and subtle interpretation of the research arena. SPSS (Statistical Package for Social Sciences) version 19 was used to analyze the data set. Ms Excel was used to create bar charts expecting more flexibility and clear graphs. Mean and SD through measure of central tendency were also used to analyze data. Tabulation method, frequency distribution, description of facts based on some statistical analysis was also performed to present and interpret the data.

In addition, document and reports collected from the organizations HR department was analyzed and interpreted to determine whether departmental procedures, practices and policies have been followed in the practice of HRIS and overview how the process are being monitored.

3.7. CONCEPTUAL FRAMEWORK

Conceptual framework (Figure 3.1) portrays HRIS contribution to HR division through the five subsystems: HRIS recruiting, HRIS training and development, HRIS employee management, HRIS performance management, and HRIS compensation subsystem. HRIS recruiting subsystem represents the functionalities of HRIS job analysis, e-recruiting and skill inventory. HRIS training and development subsystem contributes the features of HRIS Training Need Analysis, HRIS training program evaluation and HRIS succession planning, HRIS performance management represents performance appraisal and competency assessment. Employee information management subsystem of HRIS includes personnel detail, job detail and information management. Various HRIS sub systems results in automated HR division, facilitated decision making and it is against a mere transaction processing system.

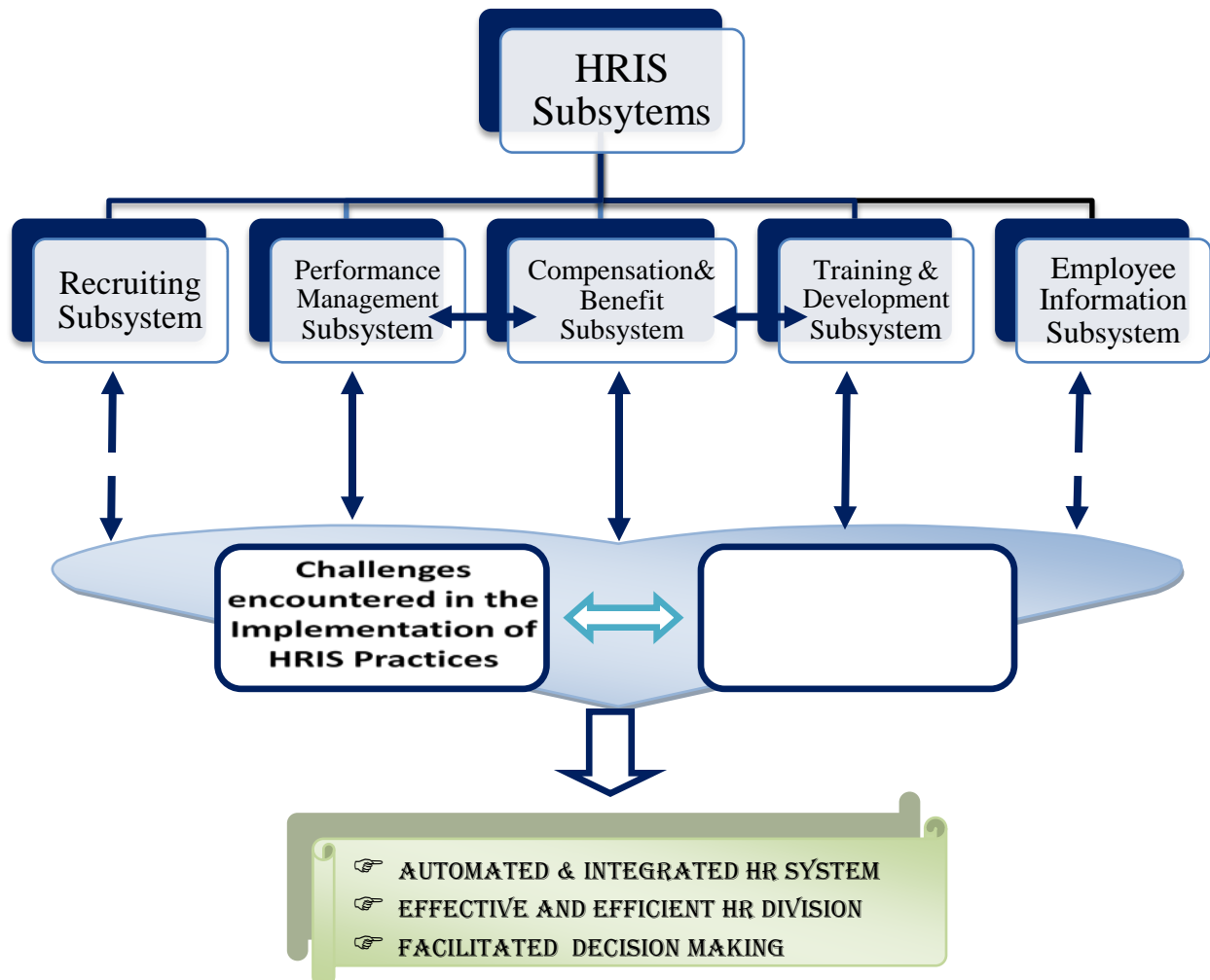


Figure 3.1: Schematic diagram for the conceptual framework

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1. INTRODUCTION

This chapter presents the results of the study and interpretation of the findings. The chapter comprised of three sections. The first section presents the background characteristic shows gender, work experience, level of education and age categories of respondents using cross tabulation. The second section presents statistics that explain the study variables under study using the item bar chart, tables and utilizing descriptive mean and standard deviation. The third section discuss the results and overall responses.

4.2. PRESENTATIONS OF RESPONDENTS BACKGROUND

To present background characteristics, frequency tabulations were used. These characteristics included gender, experience, level of education and age of respondents. The characteristics were presented based on the responses from the respondents. HR executives who use HRIS from four different public sector organizations participated to the research (n =65). The social demographic qualifications of the participants are as follows: 49 Male (75.3 %) and 16 Female (24.7 %) participated to the research. This implies there might be discrimination on sex or may be because of other reason. The educational backgrounds of the participants are; 4 peoples (6.1 %) people have diploma; 46 (70.9 %) have undergraduate degree and 15 people (23.1%) have masters degree. This indicates that the respondents who comprised of the study were qualified to provide the required responses for the study.

The age categories of participants shows that; 20 people (30.7 %) are under 25; 39 people (60.1%) are between 25-35; 4 people (6.1 %) are between 36–45 and 3 people (4.61 %) are more than the age of 45. Work experience of respondents are; 22 people (33.8 %) have 1–4 year work experience; 31 people (47.6%) have 5–9 year work experience; 9 people (13.9%) have 10–13 year experience and 3 people (4.61 %) have seniority more than 14 years.

From the results, majority of the respondents had spent 5-9 years at their respective organizations.

Table: 4.1. Respondents Background

VARIABLE		FREQUENCY	PERCENT
Gender	Male	49	75.3
	Female	16	24.7
	Total	65	100
Education	Diploma	4	6.1
	BA/B. Sc	46	70.9
	MA/M. Sc	15	23.1
Age	Under 25	20	30.7
	25-35	39	60.1
	36-45	4	6.1
	Above 45	3	4.61
Work experience	1-4	22	33.8
	5-9	31	47.6
	10-13	9	13.9
	Over 14 years	3	4.61

Source: primary data, as July 2013

4.3. PRESENTATION OF VARIABLES

4.3.1. Responses Regarding HRIS Recruitment Subsystem

This section presents the results of HRIS recruitment subsystem HR executives' responses. The analysis indicates how the recruiting subsystem of HRIS contributes to the automation and integration of HR division of the organizations through its e-recruitment and skill inventory sub functions. Item frequency tabulations were used to present the results as presented in table 4.2 and 4.3 below.

4.3. 1.1. HRIS e-Recruitment

Table 4.2: Responses Regarding HRIS e-Recruitment

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	HRIS performs comprehensive reporting and tracking of applicants efficiently.	9	21	15	13	7
		(13.8%)	(32.3%)	(23.1%)	(20%)	(10.8%)
2.	HRIS eliminates unsuitable applicants early and focuses on promising candidates.	7	28	10	17	3
		(10.8%)	(43.1%)	(15.3%)	(26.5%)	(4.6%)
3.	HRIS uses exams and personal profiles in the selection & recruitment process of the new employee & leverages employee's talent in the right place at the right time.	4	19	31	11	-
		(6.2%)	(29.2%)	(47.6%)	(16.9%)	-
4.	HRIS recruitment program linked with our organizations' HR objectives.	7	33	14	9	2
		(10.8%)	(50.1%)	(21.5%)	(13.8%)	(3.1%)
5.	Organizations HRIS e-recruitment saves the time spent on processing paperwork & on correcting errors	5	27	18	15	-
		(7.6%)	(41.5%)	(27.6%)	(23.1%)	-

Source: primary data, as July 2013

As table 4.2 shows, 31.1% of the participants replied unfavorable answers with statement that their organizations HRIS eliminates unsuitable applicant early and focus on promising candidates, while 43.1% agreed. Forty six percent of respondents believed that their HRIS performs comprehensive reporting and tracking of applicants efficiently while 20% disagreed. In additions, majority of responses indicates that e-recruitment of the organizations linked to the HR objectives of the organizations. Almost more than half of participants responded neutral suggestion with statement that their HRIS leverages employee's talent in the right place and at the right and uses exams and personal profiles in the process selection and e-recruitment of new candidates. These results indicate that the organizations need to follow the criteria that HRIS e-recruitment policy states and this will create trust and confidence for the existing employees as well as for new applicants.

The analysis shows that the effects of the HRIS on time savings are mixed since only 49.1% of the respondents believed that their organizations had realized some savings in the time spent on processing paperwork and on correcting errors.

4.3.1.2. HRIS Job Analysis & Skill Inventory

Table 4.3: Responses on HRIS Job Analysis & Skill Inventory

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	HRIS identifies unfilled positions accurately.	4 (6.2%)	34 (52.3%)	10 (15.3%)	17 (26.2%)	- -
2.	HRIS analyses each job position & its job title in an organization.	6 (9.23%)	22 (33.8%)	28 (43.1%)	7 (10.8%)	2 (3.1%)
3.	HRIS recruiting subsystem are better utilized & meet our expectation.	8 (12.3%)	15 (23.1%)	11 (16.9%)	24 (36.9%)	7 (10.8%)
4.	HRIS maintains skill inventory (ability, Capacity, qualification and career goals).	4 (6.2%)	19 (29.2%)	15 (23.1%)	17 (26.2%)	10 (15.3%)

Source: primary data, as July 2013

As table 4.3 shows, 52.3% of HR executives agreed with statement that their HRIS identifies unfilled positions accurately, while 26.2% disagreed. In addition 33.8% of them agreed that their HRIS analyses each job position and its job title in the organization and 43.1% felt neutral. Moreover, 41.5% of participants respond unfavorably with statement that their HRIS maintains skill inventory (ability, Capacity, qualification and career goals). Finally, 35.4% of the executives believed that their HRIS recruiting subsystem are better utilized and it had met their expectations, while 36.9% disagreed.

4.3. 2. Responses on HRIS Training and Development Subsystem

This part presents the results of the assessment on the role training and development subsystem of HRIS played through its training need analysis and succession planning sub functions in improving the human resource management service delivery and in the transformation of the functions of the HR department of the firms. Table 4.4 and 4.5 below presents tabular frequency of the results.

4.3.2.1. HRIS Training Need Analysis and Evaluation

Table 4.4: Responses Regarding HRIS Training Need Analysis and Evaluation

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	HRIS provides insight into organizational training needs.	2 (3.1%)	15 (23.1%)	12 (18.5%)	28 (43.1%)	5 (7.81%)
2.	The company's HRIS training program establish clear objectives and detailed plan relevant to their employees needs.	8 (12.3%)	27 (41.5%)	18 (27.6%)	11 (16.9%)	1 (1.5%)
3.	HRIS evaluates the effectiveness of training programs.	4 (6.2%)	10 (15.4%)	23 (35.4%)	25 (38.5%)	3 (4.6%)
4.	HR executives need training & development programs on HRIS to use it efficiently.	15 (23.1%)	28 (43.1%)	13 (20%)	9 (13.8%)	-
5.	HRIS selects right person to be trained at right time.	-	15 (23.1%)	24 (36.9%)	23 (35.4%)	3 (4.6%)

Source: primary data, as July 2013

According to the results in table 4.6 above, 41.5% of respondents agreed that the organization's HRIS training program establish clear objectives and detailed plan relevant to their employees' needs, while 24.6% of them disagreed. In addition, majority of respondents disagreed that their organization's HRIS provides insight into organizational training needs. The result also shows, just 65.9% of HR executives need training and development programs on HRIS to use the system efficiently. This showed that the training program of the company had not satisfied employees and creates grievance with management. This indicates that the

organizations HRIS has a clear policy regarding training and development program but there were problems concerning its implementation and this will makes difficult for HR department to optimize their contributions to the organization’s objectives. Therefore, provision of training and development program to the management members as well as to employees with the aim of enhancing their knowledge, skill, and ability makes them always competent and responsive in performing their duties, is considered to be one of the key strategies that enhance the organization’s efforts to achieve its objectives.

4.3. 2.2. HRIS Succession Planning

Table 4.5: HRIS Succession Planning Responses

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	HRIS makes better and faster decisions about successor rankings.	6	28	14	16	1
		(9.23%)	(43.1%)	(21.5%)	(24.6%)	(1.5%)
2.	HRIS identifies specific key positions and target specific employees as potential successors.	4	25	11	18	7
		(6.1%)	(38.5%)	(16.9%)	(27.6%)	(10.7%)
3.	HRIS minimizes costs associated with succession planning or applicant tracking.	8	27	16	13	1
		(12.3%)	(41.5%)	(24.6%)	(20%)	(1.5%)
4.	HRIS plays a vital role in administrating training programs.	4	18	11	27	5
		(6.1%)	(27.6%)	(16.9%)	(41.5%)	(7.6%)
5.	Organization uses HRIS T&D subsystem at an optimum level	-	10	13	33	11
		-	(15.4%)	(20%)	(51.1%)	(16.9%)

Source: primary data, as July 2013

As table 4.5 shows, majority of respondents believed that their organizations HRIS makes better and faster decision about successor ranking by assessing employee job skills, knowledge and ability, and minimize the cost associated with succession planning while 24.6 and 20 % of them disagreed with statements respectively. While, 33.7% of participants replied favorable responses with statement that their organizations HRIS play a vital role in administrating training program, forty one percents were disagreed. Finally, majority of respondents disagreed that their organizations uses HRIS training subsystem at an optimum level.

4.3. 3. Responses Regarding HRIS Performance Management Subsystem

This section presents the results related to HRIS performance management subsystem participants' responses. It emphasize the role performance management subsystem of HRIS played in producing successful and integrated HR department in organizations through its performance appraisal rating and competency assessment sub functions. The item frequency distribution tabulation was used to present the results as presented below in table 4.6 and 4.7.

4.3.3.1. HRIS Performance Appraisal Rating

Table 4.6: Responses on HRIS Performance Appraisal Rating

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	The company's HRIS performance evaluation establish clear objectives and performance measurement criteria linked to the specific job	11	26	23	5	-
		(16.9%)	(40%)	(35.4%)	(7.8%)	-
2.	HRIS Performance appraisal do reflect an employee's positive behavior as well as results	-	22	27	12	4
		-	(33.8%)	(41.5%)	(18.5%)	(6.2%)
3.	HRIS Performance management module Describe the past and current performance appraisal system in the organization.	5	25	15	10	6
		(7.8%)	(38.5%)	(23.1%)	(15.4%)	(9.2%)
4.	All evaluations follow the written schedule described in the employee handbook & company HRIS Performance policy management	-	15	17	26	7
		-	(23.1%)	(26.2%)	(40%)	(10%)

Source: primary data, as July 2013

As table 4.6 shows, majority of the HR executives respond favorably with statement that their company's HRIS performance evaluation establish clear objectives and performance measurement criteria are linked to the specific job while 35.4% of them gave neutral suggestion. For statement that HRIS performance appraisals do reflect an employee's positive behaviors as well as results, 33.8% of them agreed, while 41.5% felt neutral. Moreover, 38.5% of respondents agreed with statement that their HRIS performance management module describe the past and current performance appraisal system in the

organization and 25.5% of them disagreed. Just, 50% of participants respond unfavorably with statement that all evaluations follow the written schedule described in the employee handbook & company HRIS Performance policy management while 23.1% of them agreed.

4.3. 3.2. HRIS Competency Assessment

Table 4.7: Responses Regarding HRIS Competency Assessment

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	The company's HRIS performance management include a written plan to improve employees knowledge and skills	11	25	21	8	-
		(16.9%)	(38.5%)	(32.3%)	(12.3%)	-
2.	HRIS make easy for those employees who are better performers able to receive higher pay increase than poor performers	5	16	25	18	1
		(7.6%)	(24.6%)	(38.4%)	(27.6%)	(1.5%)
3.	The organization's HRIS has resulted with less error	9	28	25	3	-
		(13.8%)	(43.1%)	(38.5%)	(4.6%)	-
4.	The organizations HRIS capture the creative insight of employees by soliciting their ideas for improvement	-	15	18	26	6
		-	(23.1%)	(27.8%)	(40%)	(9.2%)
5.	HRIS has improved the quality of work performed and reduced the cost of HR.	8	31	20	5	-
		(12.3%)	(47.6%)	(30.8%)	(7.6%)	-

Source: primary data, as July 2013

The results in table 4.7 above show, 38.5% of respondents agreed with the statement that their organization's HRIS performance management include a written plan to improve employees' knowledge and skills employee, while 12.3% disagreed. In addition, 27.6% of participants disagreed that their HRIS make easy for those employees who are better performers able to receive higher pay increase than poor performers and 38.4% of them felt neutral. Majority of respondents agreed with statement that their HRIS has improved the quality of work performed and resulted with less error and cost reduction.

4.3.4. Responses on HRIS Compensation Management Subsystem

This section deals with the results related to HRIS compensation management subsystem HR executives' perception. The finding indicates how the compensation HRIS subsystem through its benefit administrations and payroll structure can facilitate the activities of HR division of an organization. The items frequency tabulation was used to present the results of the respondents as presented below in table 4.8 and 4.9.

4.3.4.1. HRIS Benefit Administration

Table 4.8: Responses Regarding HRIS Benefit Administration

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	The HRIS compensation policy of the company contain procedures to guide managers on how to implement the compensation system	8	23	18	14	2
		(12.3%)	(35.4%)	(27.6%)	(21.5%)	(3.1%)
2.	HRIS compensation and benefit subsystem integrated with performance evaluation.	-	10	21	27	8
		-	(15.4%)	(32.3%)	(41.5%)	(12.3%)
3.	Overall compensation and benefit process of our organization's improved due to HRIS	4	20	25	11	5
		(6.2%)	(30.7%)	(38.5%)	(16.9%)	(7.6%)
4.	HRIS makes the compensation among division are reviewed by management for consistency & equity before increasing benefit	-	13	18	26	8
		-	(20%)	(27.6%)	(40%)	(12.3%)

Source: primary data, as July 2013

As the results in table 4.8 above shows, 35.4% respondents agreed that their organizations HRIS compensation policy contain procedures to guide managers on the process of implementing the compensation system, while 21.5% of them disagreed. Moreover, 40% of respondents disagreed with statement that their organizations HRIS makes the distribution of compensation among division are reviewed by management for consistency and equity before increasing their benefit while 20% of them agreed. Similarly, 41.5% of respondents disagreed that their organizations HRIS compensation and benefit subsystem integrated with

performance evaluation and 38.5% of them felt neutral about improvement brought by overall compensation and benefit process of their organization’s HRIS system.

4.3.4.2. HRIS Payroll Structure

Payroll is the process used to administer the financial record of an employees' salary, wages, bonuses, net pay and any related deductions. Payroll is usually updated and delivered weekly or monthly, and is managed by human resource executives for the company. The HRIS payroll system is the application that HR executives will access to store update and manage all tax information for every employee. This sub section presents the responses of HR executives on their current HRIS payroll sub functions performance.

Table 4.9: Responses on HRIS Payroll Structure

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		NO	NO	NO	NO	NO
		%	%	%	%	%
1.	The organization has a HRIS policy clearly stating its position on employee compensation (salary) structure	11 (16.9%)	25 (38.5%)	21 (32.3%)	8 (12.3%)	- -
2.	HRIS eases the communication of the organization compensation philosophy clearly and effectively to all employees	5 (7.6%)	14 (21.5%)	18 (27.6%)	24 (36.9%)	4 (6.1%)
3.	HRIS analyze and compare compensation packages using internal and external salary data to ensure competitiveness in the marketplace.	9 (13.9%)	17 (26.2%)	15 (23.1%)	22 (33.8%)	2 3.1

As can be seen in Table 4.9, around 36.9% of the HR executives disagreed with the statement that their HRIS eases the communication of the organization compensation philosophy clearly and effectively to all employees and 27.6% felt neutral with statement. In addition, 40.1% of the executives believed that their HRIS analyze and compare compensation packages using internal and external salary data to ensure competitiveness in the marketplace, while 34% of them disagreed.

4.3.5. HRIS Employee Administration Subsystem Responses

The table 4.10 & figure 4.3 below outlines the results of HRIS Employee Administration subsystem HR executives' responses. The finding indicates the extent employee information management subsystem of HRIS played in the process of transforming the HR department of the organization and shows the roles of HRIS in facilitating decision making.

4.3.5.1. HRIS Information Management Subsystem

Table 4.10: Response on HRIS Information Management

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>
		%	%	%	%	%
1.	HRIS has improved their ability to disseminate information and has also increased the amount of useful information.	9 (13.8%)	28 (43.1%)	14 (21.5%)	13 (20%)	1 (1.5%)
2.	Information generated by the HRIS results in value added to the organization and enhanced coordination between the HR department and the administrators.	11 (16.9%)	26 (40%)	20 (30.8%)	8 (12.3%)	-
3.	HRIS supports Personnel files are to be completed accurately and on time and held currently.	5 (7.8%)	31 (47.6%)	18 (27.5%)	7 (10.8%)	4 (6.2%)
4.	HRIS made personnel file to be easily accessed and decreased the time spent on communicating information within firm	9 (13.8%)	25 (38.4%)	17 (26.1%)	14 (21.5%)	-

Source: primary data, as July 2013

One area in which the HRIS apparently has had strong positive effects involves information. El-Kot & Leat, (2008) suggest that the HRIS will become the mechanism for sharing information across the functional area of an organization. As indicated in the table 4.10 above, 43.1% of respondents agreed that their HRIS has improved their ability to disseminate information and increased the amount of useful information, while 20% of them disagree. In addition, 55% of participants responded favorably that their HRIS support personnel files to be completed accurately and on time and held currently. The result shows, 38.4% of

respondents agreed that their HRIS has decreased the time spent on communicating information within the organization, while 21.5% disagreed. Finally, majority of respondents believed that the information generated by the HRIS results in value added to the organization and enhanced coordination between the HR department and the administrators.

4.3.5.2. HRIS as Strategic Partner & Decision- Making Responses

The HRIS that being used as a strategic partner directly supports an organizations human resources vision and the achievement of human resources objectives. HRIS user organizations regularly produce a set of standard reports for managers across their organizations. The system allows managers to validate the information on an ongoing basis, better understand the strategic nature of the human resources function and its reliance on accurate, timely data from managers and more effectively plan, monitor and adapt to changes in their human resources needs over time. This sub section presents the HR executives responses regarding the contributions of HRIS in facilitating the decision making process and HRIS as strategic partnerships.

Q 1. The information generated from our HRIS has improved the strategic decision making

Q 2. The organization’s administration thinks that HRIS is effective in meeting strategic goal.

Q 3. The organization’s HRIS support decisions making concerning promotion and especially those decisions related selection, compensation, the timing of training and hiring

Q 4. The organization’s HRIS has made the HR department very important to the organization

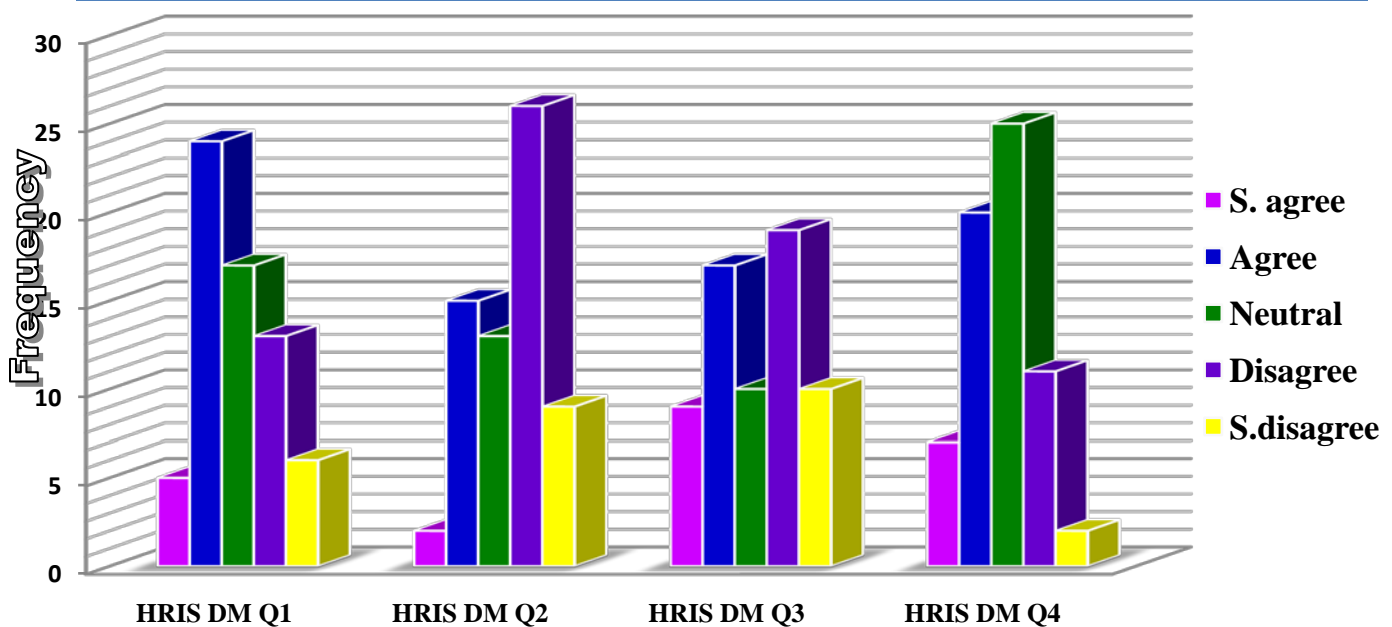


Figure 4.3: HRIS as Strategic Partner & Decision- Making responses

HRIS has been envisioned as having a substantial impact on the importance of human resource departments, leading to a more strategic role and contributing to the organization's competitiveness, as well as creating new paths for HR to add value to the organization (Lengnick-Hall and Moritz, 2003). A general purpose of an HRIS is to provide decision support applications that help HR and non-HR managers, as well as employees, make better decisions, and the key is to make better decisions rather than simply produce data faster (Kovach and Cathcart, 1999). However, based on the results contained in figure 4.3, the HRIS appears to have little effect on decision making. HR executives did not believe that the HRIS had expected positive impact on the role of the human resources department in the organization; only 36.9% of them agreed that the information generated from their HRIS has improved the strategic decision making. Regarding the strategic role, 31% of the participant responded that the administrators thought the organizations' HRIS helped them to meet strategic goals, and just 40% of them believed that HR decision making had become more effective. Finally, only 41.3% of them felt that their HR department had become more important and had become more of a strategic partner in the organizations.

4.3.6. Responses on Challenges of Practicing HRIS Subsystems

This section presents the responses of participants on the challenges of practicing HRIS. It emphasized on the challenges pinpointed during adopting, implementing and practicing the human resource information system as perceived by HR executives. Table 4.11 shows the tabular analysis of the respondents.

Table 4.11: Responses on Challenges of Practicing HRIS

STATEMENTS		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std.dev
		<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>		
		%	%	%	%	%		
1.	The organization's has faced Insufficient financial support for effective HRIS implementation	8	31	19	7	-	4.16	.308
		(12.3%)	(47.6%)	(29.2%)	(10.8%)	-		
2.	The organization have poor ICT infrastructure which result in ineffective HRIS implementation	13	25	16	11	-	3.51	.362
		(20%)	(38.5%)	(24.6%)	(16.9%)	-		
3.	Organization's has faced Inadequate knowledge in implementing the system	10	27	16	9	3	3.76	.242
		(15.4%)	(41.1%)	(24.6%)	(13.8%)	(4.6%)		
4.	HRIS not perceived as an advantage at all	-	9	14	30	12	3.04	.596
		-	(13.9%)	(21.5%)	(46.2%)	(18.5%)		
5.	Lack of commitment from top managers are barriers for effective HRIS implementation	6	25	15	12	7	3.62	.486
		(9.23%)	(38.5%)	(23.1%)	(18.5%)	(10.8%)		
6.	The organization's has faced a lot of paper work that is difficult to computerize	9	20	17	14	5	3.10	.425
		(13.8%)	(30.7%)	(26.2%)	(21.5%)	(7.6%)		
7.	Organization have faced resistance from employees because they prefer traditional methods	7	22	26	8	3	3.82	.351
		(10.8%)	(33.8%)	(40%)	(27.6%)	(4.6%)		
8.	Employees and managers have negative attitude towards new things are a challenge for HRIS effectiveness	11	19	23	10	2	3.91	.139
		(16.3%)	(29.2%)	(35.4%)	(15.4%)	(3.1%)		
9.	Keeping data protected all time from being accessed by unauthorized persons makes HRIS practice ineffective	5	23	21	13	2	3.73	.610
		(7.8%)	(35.4%)	(32.3%)	(20%)	(3.1%)		
10.	The organization's has faced lack of expertise in IT for effective HRIS implementation	8	27	15	9	6	4.04	.417
		(12.3%)	(41.5%)	(23.1%)	(13.8%)	(9.23%)		

Source: primary data, as July 2013

As the table 4.11 shows, several challenges were hindering HRIS system implementation among of which included; insufficient financial support (Mean=4.16), poor ICT infrastructure (Mean=3.51), inadequate knowledge (Mean=3.76), HRIS not perceived as an advantage at all (Mean=3.28), lack of commitment and involvement from top managers and all employees (Mean=3.62), lot of paper work that is difficult to computerize (Mean=3.10). Likewise, resistance from employees because of they prefer traditional methods (Mean=3.82), difficulty in changing the organization's culture (Mean=3.91), fear of keeping data protected all time from being accessed by unauthorized persons (Mean=3.73), and lack of expertise in IT (Mean=4.04) undermined the achievement of the full potential of HRIS. This implies that the existence of gaps in the HRIS hindered the effective delivery of HR services.

4.4. DISCUSSION

In this section, the results of the study in line with the objectives of the research are discussed. From the 96 distributed questionnaires, 65 were returned and used for the analysis. The overall response rate was 67.7 percent. A summary of the sample characteristics were presented in Tables 4.1 - 4.11. The paper has presented a survey analysis of implementations and practices of HRIS and challenges of its adoption by putting several objectives.

The first objective of the study was to find out how the recruiting subsystem of HRIS contributes for the automation and integration of HR division of the organizations through its e-recruitment and skill inventory sub functions. Table4. 2 and 4.3 gives the tabular analysis of respondents.

From analysis of the result, 46.1% of respondents were believed that their HRIS performs comprehensive reporting and tracking of applicants efficiently and majority of responses indicates that e-recruitment of the organizations linked to the HR objectives of the organizations. Almost more than half of participants responded neutral suggestion with statement that HRIS leverages employee's talent in the right place and at the right and uses exams and personal profiles in the process selection and e-recruitment of new candidates.

Moreover, 52.3% of HR executives said that their HRIS identifies unfilled positions accurately, while 26.2% of them disagreed. Similarly, 33.8% of respondents agreed that their

organizations' HRIS analyses each job position and its job title effectively while 43.1% of them felt neutral. Moreover, 41.5% of participants respond unfavorably for statement that their HRIS maintains skill inventory (ability, Capacity, qualification and career goals). Finally, 35.4% of the executives believed that their HRIS recruiting subsystem are better utilized and it had met their expectations while, 36.9% disagreed.

Employing candidates through HRIS e-recruitment reaches a wider audience than posting advertising vacancies in print media. When organizations delivered a message to a larger number of people, there is a higher likelihood that some of the respondents will be ideal for a particular job. But, an effective sorting tool must be in place to determine which candidates are ideal, because manually sorting through the hundreds of applications will be time-consuming and expensive. In addition, e-recruitment allows for appropriate interaction with candidates. Since the process is personal and direct, questions are addressed quickly, and there is unimpeded flow of information from both sides. Moreover, e-recruitment brings employers close to potential employees, and when an application is not suitable for the position applied for, organizations can retain the resume in their database for future openings that may be right for the applicant. As the result shows the organizations HRIS e-recruitment process were unsatisfactory. Therefore, the organizations should have to updates and revise their existing HRIS recruitment policies and procedures to improve the efficiency and effectiveness of their recruitment process.

The other intended benefit of HRIS e-recruitment subsystem is to reduce time spent on administrative processes (Kovach and Cathcart, 1999). But, the results shows that the effects of the HRIS on time savings are mixed since only 49.1% of the respondents believed that their organizations had realized some savings in the time spent on processing paperwork and on correcting errors. This indicates the traditional HR tasks of recruiting and staffing were not positively affected as there was little decrease in the amount of time spent on these activities and communicating information within the organizations.

The second objective of research was to investigate out the role training and development subsystem of HRIS through its training need analysis and succession planning sub functions contributed to the transformation of human resource department of the firms. Table4. 4 and

4.5 gives the tabular analysis of the respondents. The analysis shows, 41.5% of respondents agreed that their organization's HRIS training program establish clear objectives and detailed plan relevant to their employees' needs, while 24.6% of respondents disagreed. In addition to this, majority of respondents disagreed that their organization's HRIS provides insight into organizational training needs. Moreover, 65.9% of HR executives need training and development programs on HRIS to use the system efficiently. As the result indicated majority of respondents need more training and development on the system. They believed that additional and better training would lead them to better results. Several of the responses also reinforced the notion that the system was being underutilized and that they were not taking full advantage of the capabilities. They believed that other applications were needed and that the system could be more effectively utilized with the addition of some other features that were not currently part of the system. So, the potential contributions of HRIS are recognized, but further advances are need before the potential can be realized.

Executives are often responsible for productivity, customer satisfaction, employee retention, implementation of change and, of course, the leadership of their team members. Successful executives lead their teams to excel in the areas, which leads to increased profitability. Organizations that do not invest in developmental training of their executives will suffer financial consequences. Therefore, organizations should have to give proper training & development program to the executives and employee in respect of HRIS on-the-job and off-the-job and online training and tests should be conducted for those employees who use HRIS to the maximum extent to enhance their skills.

The third objective was to analyses the role performance management subsystem of HRIS played in producing successful and integrated HR department through its performance appraisal rating and competency assessment function. Table 4.6 and 4.7 gives the tabular analysis of the participants.

From the analysis of results, 38.5% of respondents agreed with the statement that their organization's HRIS performance management include a written plan to improve employees' knowledge and skill, while 12.3% disagreed. Just, 27.6% of participants disagreed that their HRIS make easy for those employees who are better performers able to receive higher pay

increase than poor performers and 38.4% of them felt neutral. Moreover, majority of respondents agreed that their HRIS has improved the quality of work performed and resulted with less error and cost reduction. The persistent pressure to reduce human resource costs has resulted in reduced HR staffing, benefits slashing, and decreased HR services. As HRIS is integrated and automated, organizations can enjoy the ultimate benefit of an all-in-one system that can decrease errors, lower cycle times, reduces turnaround time, and support management decisions (Darrag *et al.* 2010). Almost, 40% of respondents disagreed that their organizations HRIS capture the creative insight of employees by soliciting their ideas for improvement. This result shows that the organizations' HRIS performance management structure should be reviewed and includes employee participation in the process of improvement and has to be clearly communicated to all employees regularly.

HRIS performance management subsystem is an integral part of the capabilities and allows managers and employees to monitor, schedule and complete the review process on line. In today's corporate world human resources has come to play a very critical role in a business. Whether it concerns the hiring and firing of employees or whether it concerns employee motivation, the human resources department of organizations now enjoys a very central role in not only formulating company policies. Therefore organizations should complete their HRIS links to all human resources data from the time professionals enter pre service training to when they leave the workforce. Continuous monitoring and evaluation is vital in determining what an HRIS is accomplishing, what needs to be improved and whether results are being achieved.

In addition, managers of the organizations should rely on the HRIS's capabilities to provide superior data collection and analysis, especially for performance appraisal and performance management. They should have to include skill testing, assessment and development; resume processing, team and project management, and management development. According to Gardner *et al.*, (2003), increasing the use of human resource information systems (HRIS) allows professionals to achieve improved performance and thus facilitate participation of HR executives in internal consultancy activities.

The fourth objective of the study was to explore how the compensation HRIS subsystem through its benefit administrations and payroll structure can facilitate the activities of HR

division of an organization. Table 4.8 & 4.9 shows the tabular analysis of respondents. As the analysis of the results shows, 35.4% respondents agreed that their organizations HRIS compensation policy contain procedures to guide managers on the process of implementing the compensation system, while 21.5% of them disagreed. Moreover, 40% of respondents disagreed with statement that their organizations HRIS makes the distribution of compensation among division are reviewed by management for consistency and equity before increasing their benefit while 20% of them agreed. Similarly, 41.5% of respondents disagreed that their organizations HRIS compensation and benefit subsystem integrated with performance evaluation and 38.5% of them felt neutral about improvement brought by overall compensation and benefit process of their organization's HRIS system. These results shows that the organizations HRIS compensation subsystem not used at optimum level and need further improvement and alignment with the organizations goal and strategies.

The benefits administration subsystem enables executives to conveniently observe and manage employee participation in the various benefits programs offered by the organizations. HRIS packages allow organizations to establish and maintain medical benefits and retirement investments through their software. Such applications allow employers to have a one-stop shopping experience for all of their human resources data management needs. Therefore, the organizations should to add certain feature as self-service capacity to allow employees access their benefits, review their program options, and easily enroll in those plans for which they qualify.

The HRIS payroll system's primary advantage is the accessibility to other data used in the human resource process, including hiring, benefits administration and training. In an integrated system, the margin for error is decreased as commonly needed employee information like name, date of hire, pay grade, wage summary and deductions, wage register for the production of tax reports, wage and tax verification, and address can be found in one centralized location.

On average, majority of selected organizations used HRIS for payroll services and employee information management. The Payroll subsystem collects employee time & attendance information from the databases, calculates taxes and other deductions, and automatically generates paychecks according to executive dictate. However, HRIS is not only designed to

automate HRM activities to gain administrative advantages; rather, it can also be used for decision making to provide strategic advantages for the organizations. Therefore organizations should pay attention to this area in order to obtain the full benefits of HRIS.

The fifth objective of the research was to find out the extent employee information management subsystem of HRIS contribute in the transformation of HR department of the organization and explore the roles of HRIS in facilitating decision making. Table 4.10 and figure 4.3 shows the frequency analysis of respondents.

As table 4.9 reveals, 43.1% of respondents agreed that the organizations' HRIS has improved their ability to disseminate information and increased the amount of useful information, while 20% of them disagreed. Moreover, 55% of participants respond favorably that their HRIS supports Personnel files to be completed accurately and on time and held currently. When new systems are employed, employees expect more data and more accessibility than ever before. As employees are able to manage more personal data and use the systems, they seek broader information to answer questions and make decisions (Ulrich, 2001). The result shows, 38.4% of respondents agreed that their HRIS has decreased the time spent on communicating information within the organization, while 21.5% disagreed.

HR executives at organizations are generally aware of their human resources accountabilities and understand the basic human resources processes. However, the understanding of information management procedures varies from manager to manager. As a tool used to enable human resources management, the HRIS is entirely dependent on timely, accurate and reliable data coming in from across the organization. The development of information management policies and procedures for more human resources activities is underway and showing good progress. Nevertheless, the current lack of consistently understood information management policies and procedures supporting a more strategic collection of human resources information leads to inaccurate data in the HRIS and negative perceptions of the usefulness and reliability of the HRIS. Therefore, the policies and procedures for data entry and validation should be developed and documented, and they should include an appropriate quality control framework.

In addition, there are problems in the area of information flow management of HRIS. Therefore, the organizations should have to emphasize on the significance of HRIS in facilitating information flow and improve the performance of employee through proper training in respect of HRIS on-the-job and off-the-job, seminars, role plays, manuals, discussions and presentations. Furthermore, online training and tests should be conducted for those employees who use HRIS to the maximum extent to enhance their skills. Moreover, organizations should have to give employee access to their information since it increases the transparency of HR processes and helps employees better understand the role HR plays in the organization. Increasing employees' perception of control over their information can also lead to an increased sense of fairness and job satisfaction.

The organizations also need to ensure the reliability and timeliness of the employee information in the HRIS to deliver continuously adequate management information that properly supports planning and decision making regarding human resources. Therefore it is important to develop a comprehensive awareness and training program, aimed at producing a high level of engagement among managers. This will support the implementation and understanding of data management policies and business processes, and it will support having quality information on human resources in HRIS.

Moreover, the functions provided by HRIS information administration subsystem allows the type and quality of the information provided to the top management and determine the effectiveness of the HR department to make better decisions. One of the general purposes of an HRIS is to provide decision support applications that help HR and non-HR managers, as well as employees, make better decisions, and the key is to make better decisions rather than simply produce data faster (Kovach and Cathcart, 1999). Based on the results contained in figure 4.3, however, the HRIS appears to have little effect on decision making. Only 36.9% of them agreed that the information generated from their HRIS has improved the strategic decision making. Regarding the strategic role, only 31% of the participants responded that the administrators thought that their HRIS helped them to meet strategic goals, and just 40% believed that HR decision making had become more effective. The results were similarly negative pertaining to the role of HRIS on decisions especially those decisions related to

selection, compensation and the timing of training and hiring. And finally, only 41.3% felt that their HR department had become more important and had become more of a strategic partner in the organizations.

Organizations that have a HR strategy spend more time on strategic activities. The organizations that are viewed as strategic business partners by the organization's leadership have greater control over budgets and allocation of resources; and are more effective at using metrics to manage HR operations and influence business decisions throughout the organization. Hannon and Brandes, (1996), have argued that HR should move into this role in addition to performing an administrative or transactional role. Haines and Petit (1997), also suggested that the use of technology within HRM may facilitate the move to a more strategic role for HR executives through the removal of administrative burden and the capability for data-driven decision-making.

The efficient HRIS usage for strategic HR tasks leads to enhanced professional standing in the organization. The findings showed that HR executives provided value to the organizations and improved their own standing in the organizations by using HRIS. The implications of this disclosure are that HR executives should need to develop their IT skills and become a breast with HRIS' technology in order to remain competitive. This means that firms should also need to develop and plan HRIS capacity development programs for existing system and for HR executives in line with specific strategic HR tasks since enhanced professional standing implies effective and efficient work force which leads to improved performance and increased output resulting to higher profit margins and acceptable returns on investment.

The last objective of the study was to pinpoint the challenges of adopting, implementing and practicing of human resource information system. Table 4.11 shows the tabular analysis of respondents. The analysis shows that the perception of the challenges to the implementation of HRIS was investigated by asking respondents to rate each of the potential challenges shown in Table 4.11. Table shows the mean ratings and the ranking of the potential challenges to the implementation of HRIS in their organizations. As can be seen from Table 4.11, the potential challenge expressed as "insufficient financial support" had the highest

mean score (4.16). The potential challenge “HRIS not perceived as an advantage at all” had the lowest mean score (3.04).

Lack of commitment from top managers was one of the frequently cited challenges to the implementation of HRIS in the organizations. The support of top management is one of the most important factors in the successful implementation of HRIS (Deloitte, 2006). Top management takes primary responsibility for providing sufficient financial support and adequate resources for building a successful HRIS. The lack of financial support and adequate resources will inevitably lead to failure. A comprehensive HRIS requires a sizeable budget to implement and maintain. If top managements do not understand how the HRIS bring the benefits to the organization, they will not be willing to allocate valuable resources to the effort of implementation. Further promotional efforts as well as an action plan to demonstrate the concrete advantages of using HRIS are necessary if top management is to become aware of the benefits that can be achieved from implementing HRIS. Therefore, the roles of the top management must be emphasized because all the changes and willingness will cascade from the top to down and everyone should understand the need and benefits of the system and the organizations HR has main role to get employees and managers convinced about the system. In addition, committed managers will take care of communication towards employees to make sure everyone is aware of the new way of working.

The other demanding challenges faced the organizations during the implementation and practicing HRIS system, as HR executives respond were employees and managers’ negative attitude towards new things. Individuals do not feel that it is important to act according to the new processes and use the new system. HR executives were also concerned about employees and managers to be suspicion of security of the information, skepticism about the need for change at hand and fear of increased workload. In every new processes there is some change resistance observed. Adjustment time could be shortened with adequate preparation to face challenges beforehand. Therefore, organizations should have to give attentions to communication, training and frequent situation updates since it could help with the negative attitude. Benefits also should be emphasized to employees and managers. This might help to understand that the change is permanent and not going to change after a year or so.

Security also another challenge the organizations faced to the implementations of the system. Human resources information system (HRIS) houses sensitive employee data. These confidential details include birth dates, salaries, performance ratings, ethnicity data, home addresses and other relevant information. The security risks are intensifying the HR departments to roll out self-service features that require employers and managers to input their own HRIS data. So the organizations should consider the security of the system. Selecting a system that does not meet the minimum security requirements can make an organization a target for hackers. HR executives should use specific security measures to safeguard against any breaches to their HRIS programs, such as limiting access rights among users or encrypting data. Gardner *et al.*, (2007) suggests that utilizing Secured Sockets Layer ensures the employees' personal data is encrypted and not easily hacked by unauthorized users. Therefore the security systems of the organizations should have to ensure that the passwords into the HRIS cannot be easily guessed so as to prevent unauthorized users from gaining access.

Another potential problem mentioned by the respondents was the need for more training on the system. They believed that additional and better training would lead to better results. Several of the responses also reinforced the notion that the system was being underutilized and that they were not taking full advantage of the capabilities. They believed that other applications were needed and that the system could be more effectively utilized with the addition of some other features that were not currently part of the system.

While suitable policies and procedures are in place to enable effective use of the HRIS application by the organizations, the supporting business processes for the effective and timely identification, collection, capture and validation of information from operational managers are not yet in place. Therefore, organizations should have to develop supporting policies & business processes for the effective identification, communication, capture and validation of human resources information that are salient for organizational management.

The implementation of an HRIS can also dramatically affect the relationship between HR executives and employees. Employees used to working with an HR professional face to face may find it challenging to use the computer to complete tasks or answer questions. They may miss the "high-touch" feeling of working with HR staff. As more HR content is made

available online and more basic administration is pushed to employees to manage, the need for personal contact between HR staff and employees is reduced. This increased distance can make it more difficult for effective communication to occur and can weaken the relationship between HR and employees. HR executives should consider the impact of this and take measures to mitigate it.

In addition, organizations need to consider the advantages of separating out HR administration from more strategic work and of standardizing and centralizing the activities in an in house HR service centre. Actionable measures give organizations information that can be used to determine future strategies. By analyzing patterns and topics, organizations gain insight into employees' top concerns. This information can then be used to develop targeted programs to resolve problems before they cause harm.

Finally, this study provided some insights into the implementation of HRIS by public sector organizations in Addis Ababa, which would help HR executives, acquire a better understanding of the current status, benefits, and the challenges to the implementation of HRIS. Further research should address into exploring the roles of HRIS in transforming the functions of HR and facilitating decision making among more public & private sectors by overcoming the challenge mentioned in the study.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1. INTRODUCTION

This chapter presents the conclusions and recommendations arising out of the research findings and objectives, and suggests areas for further study. The research has generated several findings most of which are in line with existing literature and previous research findings

5.2. CONCLUSIONS

Human Resource Information System is a set of people, forms, procedures and data utilized to store, analyze, distribute and use information of human resources. HRIS goal is to provide accurate information for the use of persons making human resource related decisions. By implementing HRIS, organizations can have ball in their feet. Quality of the practice of HRIS has a vital impact on the performance of organization to achieve its mission and visions. The findings of the research show that HRIS helps the organizations in planning their human resources both quantitatively and qualitatively. By being an information system of human resources, HRIS assist the organizations in storing voluminous data about the employees, that not only helps in identifying the occupied and unoccupied positions but also whether the person at particular position is fit for the job or not. In additions, organizations gain competitive advantage by implementing the system which in turn facilitates healthier HR decisions and enhance supervision and control of manpower.

Because of their HRIS, organizations also improved the efficiency and effectiveness of their HR department activities. These activities include training and development of management, succession planning, applicant tracking in recruitment and selection and employee information and identification, salary planning, competency assessment, absenteeism analysis, turnover analysis and performance appraisal rating. These activities can be explained as HRIS compares the job position with candidate's qualification and capabilities and hence helps in identifying the training to be given to fill the gap. Organizations HRIS

also helps in tracking the attendance of the employees to know their regularity and devotion for the organization. This not only helps in benefit planning but also in performance management.

Moreover, the assessment of the study revealed that due to the implementations of the system, organizations improve their recruiting process by recruiting right candidates and develop their employee skills through training which in turn improved their performance. In addition, the system improved their ability to access and disseminate information, provided increased levels of useful information and the information generated internally increased the coordination between the HR department and administrations. However, the overall results of the study indicate that most of the key parameters of HRIS practices are found unsatisfactory.

Meanwhile, several challenges were also pointed out from the study among which included inadequate funds, inadequate knowledge, lack of expertise in IT to operate the HRIS, insufficient financial support, lack of information technology (IT) support, difficulty in changing the organization's culture, fear of changing the way of doing things, the HRIS not being perceived as an advantage, lack of commitment and involvement by top management and lot of paper work that is difficult to computerize undermined the achievement of the full potentials of HRIS. The other challenge for HR executives that was identified is integrating the traditional HR function of the organization seamlessly with other business value adding activities because HR information is now being recognized for its potential in strategic planning and decision support. The finding also demonstrates the reason for the limited role of the HRIS was that those who were involved in the implementations of the HRIS had a restricted view of the potential of the system, seeing it merely as a tool to automate the HR information, rather than transforming HRM in the organizations. Therefore, HR systems should be designed to develop and reinforce ideas of intellectual capital and knowledge management that propel strategy formation.

The main message from the survey suggests that while the use of HRIS varies among organizations, these systems appear to offer a range of benefits to HR executives, particularly

in the areas of employee information management, training & development, recruitment, compensation and performance management. The organizations should have to continue and grow their HRIS usage with considering updates of their existing systems in the near future since the potential for the system in linking human resource management activities with broader organizations objectives is somewhat underutilized & need further improvement. In conclusion, the practices of HRIS should be integrated with the overall strategy to ensure effective use of people and provide better returns to the organizations. Unless the HRIS practice is designed in this way, the organizations stand to lose from not utilizing the system fully and this does not happen well for the success of the organization.

Therefore, strategies need to be put forwarded to counteract the challenges observed. These includes that ensuring the sources of funds to cover the costs of setting up and maintaining HRIS, mobilization of financial resources, support from top management, training of staff on the operations HRIS, change of employee and management attitude towards the HRIS and sourcing for the required expertise. Finally, it is concluded that HRIS is an excellent tool for HR division and the organizations but there is still some bones to pick up and the actions that HRIS has not absorbed, should need to work on it.

5.2. LIMITATIONS AND FURTHER RESEARCH

The Research was subject to certain limitations that can have impact upon the results received and the conclusions drawn. Limitations in this survey includes:-

- ☞ The foremost research limitation is on the area of public sector organizations perspective. HRIS role in enhancing the functions of HR divisions can be studied in any of other sector as human resources are assets of the organizations irrespective of the sector. Future research efforts should be focused into exploring the role of HRIS in transforming HR division and facilitating decision making among more public and private sectors.
- ☞ There are some possibilities of measurement errors since the study focused on perception of the respondents. This could have resulted in some degree of perceptual inflation of self-assessment scores. Those who enjoyed great satisfaction with the systems may have inflated their responses with respect to their intention to continue to use the systems. Additionally, since the instrument was also self-administered, there could be situations where respondents may need further clarification, which was not available.
- ☞ Some of HR staff was not genuinely forward their opinion because of they are too busy and some senior HR executives were not willing to express their opinions due to reasons of confidentiality.
- ☞ Other limitation is the static nature of the study, that is, the study is based on the existing scenario of the level and usage of HRIS; but HRIS can be enhanced in future. Therefore Research should be conducted in future to know whether HRIS is improving with changing time or not within the organizations.
- ☞ The research study was restricted to 65 respondents. Therefore, a detailed research would be needed to explore the functions and contributions of HRIS to HR division, especially; with much, bigger sample size and a higher response rate so that a deeper analysis can be done for generalization.

5.3. RECOMMENDATIONS

In the evolution of organizations one thing that persisted over ages is the need for change. With globalization of economies & technological advances this change became all the more important to exist & sustain. Each and every sub function of an organization undergoes changes to be innovative and efficient on quality, cost and time. Human resource function needed to undergo transformation to keep pace with the other functions and HRIS play significant role in supporting and transforming all operations inside of the HR division.

After analyzing the semi-structured interviews, questionnaires and the available document related to HRIS in selected four public sector organizations, the following recommendations are forwarded.

- ☞ The HRIS recruitment and selection subsystem of the organizations should follow the HR policy and procedures of the organizations. Since human capital plays a larger role in competitive advantage, HR executives of the organizations should need to revise the existing recruitment and selections policies to provide various functionalities to meet their unit's and organizations goals and objectives. This is in line with the findings of the study which revealed that the core competencies of the HRIS are clearly defined, and the ability to create, apply and extend knowledge of the HRIS recruitment subsystem promoted the success of the organization.
- ☞ The organizations should need to amend the current HRIS compensation and benefit scheme, unless the labor turnover will be high. Human resource managers should have to administer and improve the compensation and benefit structures. Since retaining excellent staff depends on outstanding pay and benefits which are critical factors that ultimately determine how well employees feel about the organizations and the likelihood that they will remain with company in the future.
- ☞ The HRIS performance evaluation system should be clear, objectives and related to the specific task and redesigning of HRIS performance reviews are needed to manage the performances of employees effectively as an integral part process. Maintaining

and effectively monitoring its implementation should be an important function of HR department for better performance of the organizations. In addition organizations need to develop an HRIS system that clearly links individual performance to corporate business goals and priorities. Each employee should have well defined reporting relationships and evaluation becomes fairer if it is based on the records of periodic counseling & achievements of the employees tracked over the year.

☞ Human resource training and development is one of the factors that the organization's has productive and their competitive advantage will be consistent. Training and development skills are vital assets for HR executives. The ability to create training programs that solve employee performance problems will yield important benefits for organizations. However, as the result of study shows, practicing of HRIS can be hindered through inadequate knowledge and expertise in IT to operate the HRIS. Here, the organizations should have to identify the right staff and undertake them through HRIS development training as a means of imparting knowledge and skills that are desirable for the operation of the HRIS. Therefore, in order to gain the competitive advantage, the organization's HRIS training and development subsystem should be strong and clearly communicated to all staffs effectively and executives need to be trained on the application of the system.

☞ Organizations should have to continue to develop their capacity for human resources information management at both the strategic and the tactical levels. Identifying key information that will be used by management is an essential step in properly managing human resources information. The current processes with respect to information management and validation should also be enhanced in order to better support organization's human resources objectives. Appropriate policies and procedures are important to ensure that reliable and timely data is fed into the HRIS from across the organizations. The organizations' HR division should have to take steps to enhance all related human resources business processes to ensure accurate and timely data entry; confirm associated quality assurance activities; and provide

managers with easy access to meaningful, standardized reporting formats. These efforts should also be complemented by the implementation of a comprehensive training and communications plan targeted to all executives. This enables the human resources management processes for capturing accurate and timely information in the HRIS.

- ☞ Several challenges were pointed out from the study among which included inadequate funds, lack of expertise in IT to operate the HRIS, insufficient financial support, lack of commitment and involvement by all employees and lot of paper work that is difficult to computerize undermined the achievement of the full potential of HRIS. Therefore, organizations need to put the strategies forward to counteract the challenges and managements of the organizations should carry out a lot of benchmarking from more experienced organizations that are already have operating the system and should seek advice on how to effectively carry cost effective HRIS implementation.
- ☞ Moreover, HRIS must be driven by strategic vision and it should be an open system, where IT facilitates communication freely between integrated features; since such information sharing is crucial to learning organizations that view their employees as their main competitive advantage. Therefore, a comprehensive and effective HRIS must be driven by organizational vision, value, and culture. A synergistic HRIS will enable organizations to realize visions through their employees, the most important assets in the organizations.

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Website

[http://www.compareHRIS.com /products](http://www.compareHRIS.com/products)

<http://www.sap.com>

<http://www.epicor.com>

<http://www.sage.com>

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[http// www.wikipedia org/wiki/trainings and develop](http://www.wikipedia.org/wiki/trainings_and_develop)

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<http://www.simplehrguide.com/e-recruitment>

<http://www.businessballs.com/hris>

www.oracle.com

Appendices A

St. Mary University School of Graduate Study

Questionnaires to be filled by HR executives



Instructions to the Questionnaire

This is a research on the topic **“The Practices and Challenges of Human Resource Information System the case study of Selected Public Sector Organizations in Addis Ababa”**. The research is carried out in order to fulfill the requirement of Graduate Studies of St. Mary University, as the final year thesis for Masters in Business Administration degree. You have been selected as a respondent to this questionnaire because I believe the information that you will provide will be very useful in enabling me realize the objectives of the study. The information you avail in this questionnaire will be used for strictly academic purposes and confidentiality will be ensured. You don't need to write your name on it and nobody will ask you what and why you write. Please try to answer all of the questions and complete the questionnaire; and don't leave any out.

In answering the question you may be requested to put a tick (✓) mark inside the box that indicate your level of agreement for each statements regarding the critical human resource information systems (HRIS) service delivery of your organization. I highly appreciate the fact that you have taken time to fill in this questionnaire. Thank you very much.

Markos Mulat

Back ground

1. **Gender** Male Female

2. **Age** under 25 25-35 36-45 above 45

3. **Educational back ground**

12 complete Diploma BA/B.Sc. degree

MA/MSc If other

4. **Work experience in the organization**

1-4 5-9 10-14 over 14 years



Part 1: HRIS FUNCTION IN <u>RECRUITMENT AND SELECTION</u>		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	REMARK
<i>Statements</i>							
1.	HRIS performs comprehensive reporting and tracking of applicants efficiently.						
2.	HRIS eliminates unsuitable applicants early and focuses on promising candidates.						
3.	HRIS uses exams and personal profiles in the selection & recruitment process of the new employee & leverages employee's talent in the right place at the right time.						
4.	HRIS recruitment program linked with our organizations' HR objectives.						
5.	Organizations HRIS e-recruitment saves the time spent on processing paperwork & on correcting errors.						
6.	HRIS identifies unfilled positions accurately.						
7.	HRIS analyses each job position & its job title in an organization.						
8.	HRIS maintains skill inventory (ability, Capacity, qualification and career goals).						
9.	HRIS recruiting subsystem are better utilized & meet our expectation.						
Part 2: HRIS FUNCTION IN <u>TRAINING AND DEVELOPMENT</u>							
1.	HRIS provides insight into organizational training needs.						
2.	The company's HRIS training program establish clear objectives and detailed plan relevant to their employees needs.						
3.	HRIS evaluates the effectiveness of training programs.						
4.	HR executives need training programs on HRIS to use it efficiently.						
5.	HRIS selects right person to be trained at right time.						
6.	HRIS makes better and faster decisions about successor rankings.						
7.	HRIS identifies specific key positions and target specific employees as potential successors.						
8.	HRIS minimizes costs associated with succession planning or applicant tracking.						
9.	HRIS plays a vital role in administrating training programs.						
10	Organization uses HRIS Training subsystem at an optimum level						



Part 3: HRIS ROLE IN <u>COMPENSATION AND BENEFIT</u>		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	REMARK
<i>Statements</i>							
1.	The HRIS compensation policy of the company contain procedures to guide managers on how to implement the compensation system						
2.	HRIS compensation and benefit subsystem integrated with performance evaluation.						
3.	The organization has a HRIS policy clearly stating its position on employee compensation (salary)						
4.	HRIS makes the compensation among division are reviewed by management for consistency & equity before increasing benefit						
5.	HRIS eases the communication of the organization compensation philosophy clearly & effectively employee						
6.	HRIS analyze and compare compensation packages using internal and external salary data to ensure competitiveness in the marketplace.						
7.	Overall compensation and benefit process of Our organization's improved due to HRIS						
Part 4: HRIS FUNCTION IN <u>PERFORMANCE MANAGEMENT</u>							
1.	The company's HRIS performance evaluation establish clear objectives and performance measurement criteria linked to the specific job						
2.	HRIS Performance appraisal do reflect an employee's positive behavior as well as results						
3.	HRIS Performance management module Describe the past and current performance appraisal system in the organization.						
4.	All evaluations follow the written schedule described in the employee handbook & company HRIS Performance policy management						
5.	The company's HRIS performance management include a written plan to improve employees knowledge and skills						
6.	HRIS make easy for those employees who are better performers able to receive higher pay increase than poor performers						
7.	The organization's HRIS has resulted with less error						
8.	The organizations HRIS capture the creative insight of employees by soliciting their ideas for improvement						
9.	HRIS has improved the quality of work performed and reduced the cost of HR.						



Part 5: HRIS ROLE IN <u>EMPLOYEE INFORMATION MANAGEMENT</u>		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	REMARK
Statements							
1.	HRIS has improved their ability to disseminate information and has also increased the amount of useful information.						
2.	Information generated by the HRIS results in value added to the organization and enhanced coordination between the HR department and the administrators.						
3.	HRIS supports Personnel files r to be completed accurately and on time and held currently.						
4.	HRIS made personnel file to be easily accessed and decreased the time spent on communicating information within organization.						
5.	The information generated from our HRIS has improved the strategic decision making						
6.	The organization's administration thinks that HRIS is effective in meeting strategic goals.						
7.	The organization's HRIS support decisions making concerning promotion and especially those decisions related to selection, compensation, training and hiring						
8.	The organization's HRIS has made the HR department very important to the organization						
Part 6 : <u>CHALLENGES OF PRACTICING HRIS FUNCTION</u>							
1.	Organization's has faced Insufficient financial support for effective HRIS implementation						
2.	The organization have poor ICT infrastructure which result in ineffective HRIS implementation						
3.	Organization's has faced Inadequate knowledge in implementing the system						
4.	HRIS not perceived as an advantage at all						
5.	Lack of commitment from top managers are barriers for effective HRIS implementation						
6.	The organization's has faced a lot of paper work that is difficult to computerize						
7.	The organization have faced resistance from employees because they prefer traditional methods						
8.	Employees and managers have negative attitude towards new things are a challenge for HRIS effectiveness						
9.	Keeping data protected all time from being accessed by unauthorized persons makes HRIS practice ineffective						
10.	The organization's has faced lack of expertise(s) in IT for effective HRIS implementation						

THANK YOU FOR YOUR TIME IN FILLING THIS QUESTIONNAIRE
AND HELPING ME WITH YOUR VALUABLE INPUTS. M M



