

**ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS
AND ECONOMICS
SCHOOL OF COMMERCE**



**ASSESSMENT OF HUMAN RESOURCE INFORMATION
SYSTEM(HRIS) IN ETHIOPIAN AIRLINES**

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My deepest gratitude also goes to Ethiopian Airlines human resource staff members who cooperated with me in providing valuable information without which the accomplishment of this paper would have not been possible.

Finally, I would like to express my deepest gratitude to my honorable friends and colleagues.

DECLARATION

Hereby I, Tizita Zewdie, declare that the assessment of Human Resources Information Systems (HRIS) in the case of Ethiopian Airlines is my own original work and that all sources have been accurately reported and acknowledged, and that this document has not previously in its entirety or in part been submitted at any university in order to obtain an academic qualification.

CERTIFICATION

I dedicate this work to my husband Dr. Fikremariam Gudeta and my daughters Meti and Hawi and also my boy Natinael who are my inspiration in everything I do and every choice I make. Thank you for allowing me to fulfil my passion without a sense of guilt. Your patience and understanding are inspiring. I also dedicate this to my friend Dr. Tigist Bacha, to my mother, father and brothers who always supported me in every endeavor. They are the reason I am here and have made me who I am today.

ASSESSMENT OF HUMAN RESOURCE INFORMATION SYSTEMS (HRIS) IN ETHIOPIAN AIRLINES

Department of Human Resource Management

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ABSTRACT

This study aimed at assessment of applications of Human Resources Information System (HRIS) being practiced in Ethiopian Airlines at HR department. The study adopted a quantitative research approach and used primary data source. The primary data was collected from 77 staffs in HR department selected using a simple random sampling from HR department of 140 HR staff. A primary data was gathered through questionnaires. A simple random sampling was used to select respondents from the HR staff. As a finding, the results indicate that the extent of application of HRIS being practiced in Ethiopian Airlines is considered to be moderate. The results also indicate that the most frequent application of HRIS in the organizations was found to be in “compensation management and followed by “employee record”, “performance management “ and “recruitment/selection “ As a finding working under HR department lacks knowledge to operate HRIS system and unable to use the system in full services capacity. The application of HRIS in Ethiopian Airlines at HR department is also challenged by inadequate training or capacity building of employees, absence of continuous IT support and other related factors. The researcher recommended to provide required training on HRIS on different division of HR department for addressing the status of the utilization level of HRIS and give support.

Key terms: HRIS applications, HRIS practice, Ethiopian Airlines

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LIST OF ACRONYMS

ASEZA -Aqaba Special Economic Zone Authority

E-HRM - Electronic Health Resource Management

ET-Ethiopian Airlines

ERP -Enterprise resource planning systems

HR - Human Resource

HRIS- Human Resource Information Systems

HRM- Human Resource Management

IATA -International Air Transport Association

ICT- Information Communication Technology

IS- Information Systems

IT- Information Technology

MIS-Management Information System

SAP- Systems, Applications, and Products in Data Processing

SPSS-Statistical Package for Social Science

TAM- Technology Acceptance Model

TOE - Technology Organization Environment

WWW – World Wide Web

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

There have been wide studies on the adoption and use of HRIS. While some have examined the type of applications that dominate HRIS (Jain 2014; Fagan 2015). Rand (2014), this study showed that the most common utilized modules of HRIS used in the business organizations are Employee Records, followed by compensation and Recruitment/Selection. Inadequate knowledge in implementing HRIS as the factors of usage has been identified in this study. In this study the benefits of HRIS has been presented in such a way that the reduction of man power and paperwork, faster response time, the more accurate HR information, and more efficient tracking and controlling. Patel (2015) the study of Understanding Human Resource Information Systems & Its Importance. In this study the researcher identified that HRIS system and subsystem supports HRM functions. In addition to that HRIS play a major role on facilitating and improving HRM functions. Alwis (2010) the study conducted on Sri Lankan industry demonstrates the level of HR modules utilization. Among the most known HR functions used in HR department HRD (training and development), recruitment and selection and performance appraisal are commonly utilized by all the companies. Generally, the majority of these studies were performed in developed countries (Panayotopoulou, 2007), with few considering developing countries. Giant growth of Information Technology(IT) has been observed in recent decade. Information technology has evolved from simple data capturing and computing applications in the 1960s to enterprise wide automation named Enterprise Resource Planning (ERP). Major changes have been advanced regarding information technology specifically in hardware, software, and data management and communication technology. An information system(IS) is a tool which help decision makers by providing accurate information in real time bases. Information system - is a set of organized procedure which provides information to support decision making. An information system is generally required to communicate effectively with the environment. HRIS is a systematic approach to manipulate and process HR data centrally and helps for collecting, storing, maintaining, retrieving and validating data needed by an organization about its HR. The HRIS is usually a part of the organization's larger Management Information System (MIS).

Ethiopian Airline is one of the rapidly growing industries in the country with the advancements of information technology. Ethiopian Airlines has been using SAP to manage human resource since 2013. SAP is one of the most famous, HRIS software programs that was introduced in 1972 by three German programmers to assist companies in their daily business and human resource activities irrespective of the size of the organization Khoualdi & Basahel, (2014). Therefore, this paper tried to assess HRIS application also to evaluate what are the major factors that affects Ethiopian airlines HRIS application.

1.2 Statement of the problem

Even though HRIS appears to have tremendous promise it has not been fully utilized according to its potential, (Agendra and Deshpande, 2014).As stated earlier, HRIS has already been implemented in Ethiopia Airlines since 2013.However Ethiopian Airlines is not utilizing the system in full service capacity. According to HR annual reports of HR department ,HRIS applications still lack utilizing in HRIS full potential. As a result, Ethiopian Airlines is partially engaged in the manual system which caused error, delay and lack of consistency in decision making which also affects the performance, efficiency and productivity of the organizations. Therefore, this research was the first to asses HRIS application in Ethiopian Airlines and explore about the potential factors that affects the usage of HRIS in Ethiopia Airlines. The study mainly answered the following questions:

1. To what extent Ethiopian Airlines use/implement HRIS application in HR department?

1.3 Objectives of the study

The aim of this study was to assess the practice of existing HRIS System named SAP in Ethiopia Airlines. The study aimed at investigating the extent of the applications of Human Resources Information Systems (HRIS) being practiced in Ethiopian Airlines in HR department.

1.3.1 General Objective

The main objective of this research was to assess HRIS practice in Ethiopian Airlines at HR department in order to provide recommendation for successful usage of such systems.

This is important for more than one reason. .

1.3.2 Specific Objectives

The specific objectives of the study include:

1. To evaluate what extend HRISs are being practiced in recruitment & selection, training development and in payroll system in HR department
2. To identify critical factors that affect the application of HRIS in HR department.

1.4 Significance of the Study

The contribution of this research is to fill the existing gap regarding HRIS current practice and expected service usage in Ethiopian Airlines at HR department.

The benefits of this research are: -

- ✓ To help Ethiopian Airlines to figure out the level of application of HRIS.
- ✓ To identify the key issues in association with utilization of HRIS
- ✓ To give some insights for the practitioners to acquire a better understanding of the current status, benefits, and issues towards the usage of HRIS.

Based on these it is expected that organizations can benefit from this research findings and recommendations to improve their level of HRIS usage and this study could also be used as an input for further studies in this area. By identifying the gaps on HRIS usage, this study provided recommendations for capacity building and training. The theoretical contribution of this research is to fill the existing literature gap regarding HRIS usage in Ethiopia Airlines. This study would not only fill the existing knowledge gap in research studies, it would also encourage organizations to review their Information System policies and HRIS utilization in HR department. This study will also be a basis for further research in the fields of human resource information systems on human resource management function and related issues.

1.5 Scope of the study

The study is confined to Ethiopia Airlines, Head office. The focus was on HRIS system application on HR department. Due to time limitation, this study has only considered HRIS subsystems or application of record keeping , training ,compensation, performance management ,recruitment selection, Job evaluation, succession plan ,management & employee. The study has only considered HR staff under HR department in an Ethiopian Airlines. Due to the large number

of factors considered to influence the adoption of Human Resource Information Systems, the study focused only on HRIS systems factors associated with usage of HRIS.

1.6 Delimitation and Limitation of the Study

Theoretically, HRIS has different modules functioning in HR activities, but the scope of this research was limited on the assessment of HR functions, which are recruitment and selection, compensation, performance management ,record keeping ,Job analysis, training, employee relation and succession plan at HR department. Ethiopian Airlines is one of the largest organizations in Ethiopia having different branches. Such a wide scope research could hardly be undertaken with such a small scale essay in a limited time, human resource to collect and manipulate data and finance to undertake such an issue in such a way. Consequently, this researcher preferred to focus on a more specific issue on HR employees working under HR department. Area wise in order to make the research more precise and accurate the researcher has focused on the head office located in Addis Ababa. Due to covid-19 and lockdown situation ,this research focused on primary data.

1.7 Organization of the study

This study is organized into five chapters. The first chapter consists of introduction, statement of the problem, objectives of the study, significance of the study, delimitation of the study and etc. The second chapter presents theoretical and empirical literature review, while research methodology treated in chapter three. Chapter four analyses and interprets data collected through the questionnaires. Chapter five provides a summary of the research findings, possible recommendations for HRIS utilization practices, and outlines further studies in terms of future work, as well as conclusions.

CHAPTER TWO: LITERATURE REVIEW

This chapter analyzed various sources and provided explanation of human resource information systems to support the research theoretically. The chapter gives an overview, definition and benefit of HRIS, HRIS model and several theories of HRIS. This chapter covers both theoretical and empirical literature review of general and related topics to support this study.

Overview

In order to understand detail of HRIS features, HRIS benefit and HRIS application and factors affects HRIS, different research articles are reviewed from different sources.

2.1 Theoretical literature review

2.1.1 Definition and concept of HRIS

HRIS is part of an organizational wide information system referred to as an ERP (enterprise resource planning systems) which is an integrated application package that enables transaction oriented data and business processes for the entire organization (Skoumpopoulou & Nguyen-Newby, 2015). As (Hendrickson, 2003) stated that HRIS is the case with any multifaceted organizational information system, HRIS is not limited to the computer hardware and software applications that encompass that technical part of the system, it also has the people, policies, producers and data required to manage the HR function. While (Kovach, 2002) believe that HRIS is a systematic process for collecting, storing, maintaining, retrieving and validating data needed by organization about its human resources, personal activities, and organization between human resource management and information technology. (DeSanctis, 1986) mentioned that HRIS merges HRM as a discipline and in exacting basic HR activities and producers with the information technology setting. An HRIS is a set of interrelated components working together to collect, process, store and disseminate information (Dessler, 2011), to support decision making, coordination, control, analysis and utilization of an organization's Human Resource. HRIS is defined as a system which is used to acquire, store, manipulate, retrieve and distribute pertinent information about an organization's human resources (Kavanagh, Thite, & Johnson, 2012). Tannenbaum (1990) defined HRIS as a technology-based system used to acquire, store, manipulate, analyse, retrieve and distribute pertinent information regarding an organisation's human resources, consistently. Kavanagh and Tannenbaum (1990) defined it similarly as a system used to acquire, store, manipulate, analyse, retrieve and distribute information regarding

an organisation's human resources. Bohlander (2011) define human resources information systems as a system that develops current and accurate information for decision-making and monitoring and most of applied information technology has been to maintenance staff's information, monitoring salary operations, keeping information about absences and doing administrative affairs and employment and training programs.

2.1.2 Human Resource Information System Applications

Dennis(2015)Human resource management systems encompass: Payroll, Time and attendance, Performance appraisal, Benefits administration, HR management information system, Recruiting/Learning management, Performance record, Employee self-service, Scheduling, absence management and analytics. Singh(2011), the deployment of Human Resource Information Systems (HRIS) ,this study concluded that HRIS covers wide range of HR activities and has a very wide scope in developing countries. It is applied in HR planning, recruitment, career planning, negotiations, personnel administration.HR functions are concerned with the management and development of people in organizations. They are involved in the development and implementation of HR strategies, policies and people management activities: organization development, human resource planning, talent management, knowledge management, recruitment and selection, learning and development, reward management, employee relations, health and safety, welfare, HR administration, fulfillment of statutory requirements, equal opportunity and diversity issues, and any other matters related to the employment relationship (Armstrong, 2006).

HRIS incorporate several modules or subsystem and wide ranges of applications from a very simple data capturing to most sophisticated application, HRIS was limited to operate in HR departments for many years, but recently HRIS use has changed to play a more strategic role to support HR workers, in particular HR managers. HRIS encompasses most HR practices as a result it reduces man power, time required to perform tasks and the need for large number of HR employees. HRIS employees' self-services helps to process their own personal information and allows managers to access relevant information and data, conduct analysis, make decisions, and communicate with others without consulting an HR professional. With the help of sound HRIS system, less number of employees should be needed to perform HR administrative tasks such as record keeping as a result more time would be save and made available for HR managers to

focus on a strategic level. Due to a technology advancement and enabling features, organizations change their direction from a day to day routine tasks to HR policies and practices advancement. HRIS is the platform which provides cooked information to management on real time bases to take timely decision on administrative matters. HRIS enables organization to adopt new systematic approach on most common HR functions such as recruitment, selection and training of employees. HRIS is centralized and organized data processing system, also allows certain tasks to be completed more easily and reduces the amount of paper that HR departments must store.

Recruitment and Selection: One of the main activities of HRM is staffing. Staffing is important because it provides a supply of individuals needed to fill the jobs within an organization necessary to achieve business objectives. Once HR professionals have undertaken job analysis, a job description can be prepared. Such job description is used when recruiting individuals. E-recruiting, or Internet recruiting, is one of the methods available to HR professionals that may be integrated with HRIS.

Training and development: Which provides a system for organizations to administer and track employee training and development efforts. The system, normally called a learning management system (LMS), if a standalone product, allows HR to track education, qualifications and skills of the employees, as well as outlining what training courses, books, CDs, Web- based learning or materials are available to develop certain skills.

Payroll Administration: The payroll module automates the pay process by gathering data on employee time and attendance, calculating various deductions and taxes, as well as generating periodic pay cheques and employee tax reports. This module can contain the entire staff-related business, and can also conjoin with the finance administrative units established some time before a firm adopted HRIS. The administration of traditional payrolls comprised a tiresome and time-consuming task that could be liable to error, taking into consideration the many details needed, such as the original wage minus or plus different payments. An HRIS can streamline this process; generally the payroll staff member only needs to enter the hours worked (or possibly not even that for companies using an electronic time clock integrated with the HRIS), and then the system will use a series of steps and procedures to do all of the calculations for the employer. Pay cheques are then quickly printed and distributed. Compensation

Management/Administration: It provides a system for organizations to administer and track employee participation in benefits programs. These typically encompass insurance, compensation, profit sharing and retirement. This process needs all sorts of information to be gathered and administered, especially the nature of the accident or sickness, the individuals implicated, medical reports, regulations controlling staff behavior, and government information (Hendrickson, 2003). Studies of the payroll interface have been conducted for areas such as record keeping, pension calculations, and retiree payments and statements (e.g. Andrew and Satish, 2001). The Internet provides a real-time way of allowing employees to review information on the breakdown of salaries, deductions and accumulated balances. Organizations gather data on salary, wages and other benefits to streamline inputs to the payroll, benefits and compensation application online.

Performance Appraisal: Although relatively few research studies have focused on the online application of performance appraisal (Hansen and Deimler, 2001), the Internet plays an important role in reducing the effort and agony of managing performance evaluation. Normally, staff members have their performance reviewed periodically. Performance reviews become immediately available to those involved, including supervisors, colleagues, clients and others.

Job Analysis Application:-Web-based job analysis application is the software that helps HR departments to establish job analysis, which is usually performed using an online questionnaire to collect information directly from employees, supervisors, and outside subject matter experts. The software analyzes and generates a job description per job surveyed. Such job description is used as a basis for a job evaluation (Tesi, 2010)

2.1.3 Benefit of Human Resource Information System(HRIS)

HRIS represents a great investment decision for organizations of all sizes (Lederer, 1984) discussed why the accuracy and timeline of HRIS is very significant in terms of operating, controlling and planning activities. In this vein, (Becker and Gerhart, 1996) summarized five reasons why companies should use HRIS: to increase competitiveness by improving HR practices, to create a greater number and diversity of HR operations, to transfer the focus of HR from the processing of transactions to strategic HRM, to make the employees part of HRIS, and to reengineer the entire HR role. Kettley reported (2003) that the potential benefits of HRIS can be: Operational efficiency – Reducing overhead costs, enhancing the accuracy of data, eliminating the costs of printing and disseminating information, minimizing IT infrastructure costs by moving towards a common HR service platform. HRIS helps in recoding and analyzing

employees and organization information and documents, such as employee hand books, emergency evacuation and safety procedures (Fletcher, 2005). HRIS advantages can be systematized according to Kovach (2002).

1. Increase competitiveness by improving human resource operations
2. Ability to implement a number of different operators to human resource
3. Shift the focus from the operational(transaction) human resource information to strategic human resource information
4. Include employees as an active part of the HRIS
5. Reengineering the entire human resource department



Figure 1: Overall benefits of HRIS (Krishna and Bhaskar, 2011)

Automation or digitalization has its own advantage of providing more accurate and timely data for decision-making. Likewise, automation of HR activities like employee records management has resulted in efficient data management and information dissemination for the users. Through HRIS employees can now access required information without delay or errors. HR activities are need to be automated so that HR data manipulate become efficient and dissemination of accurate information to the right person are possible through HRIS. HRIS is a communication platform that reduces vertical and horizontal communication boundaries within organization. Areas like e-

learning, knowledge, management, discussion database and collaborative computing help an employee to develop and enhance the skill and share knowledge/experience with others. HRIS empower not only HR Manager but also employees of the organization.

HRIS contributes for cost reduction by automating most of HR paper work which needs large number of HR employees. Ideally, with an appropriate use of HRIS, less people should be needed to perform administrative tasks such as record keeping and more time would be made available for HR managers to assist by providing data on a strategic level. Due to technological advancement, organizations change their HR policies and practices. HRIS provides accurate information on real time bases which help top management in taking timely decision on administrative matters. With the help of sound HRIS the organizations can adopt new changes in HR functions such as planning, recruitment, selection and training of employees.

Human Resource Information System (HRIS) often described as Human Resource Management System is an important tool to ensure a competitive advantage of an organizations. HRIS is a software solution that intersect human resources and information technology. The Human Resource Information System (HRIS) is online and real time solution for employees' data manipulation, data tracking, and data information needs of the human resources, benefit management, and also time recording functions within a business. The integrated HRIS incorporates different subsystem or parts of human resource, including recruitment, labor productivity, and benefit management. HRIS generally provide the capability to control and manage HR costs effectively; achieve improved efficiency and quality in HR decision making.

2.1.4 HRIS model

(Enshur,2002) HRIS is a tool which help decision makers by providing accurate information in real time bases. HRIS as a technology may be used for recruitment and selection, performance evaluation, compensation and benefits, training and development, health and safety, employee relation and legal issues, retention and work life balance. HRIS functions interactively with human resource management systems such as human resource planning, staffing, training, and career development, performance management and compensation management (Kavanagh, 1990).

Model of Human Resource Information Systems (HRIS)

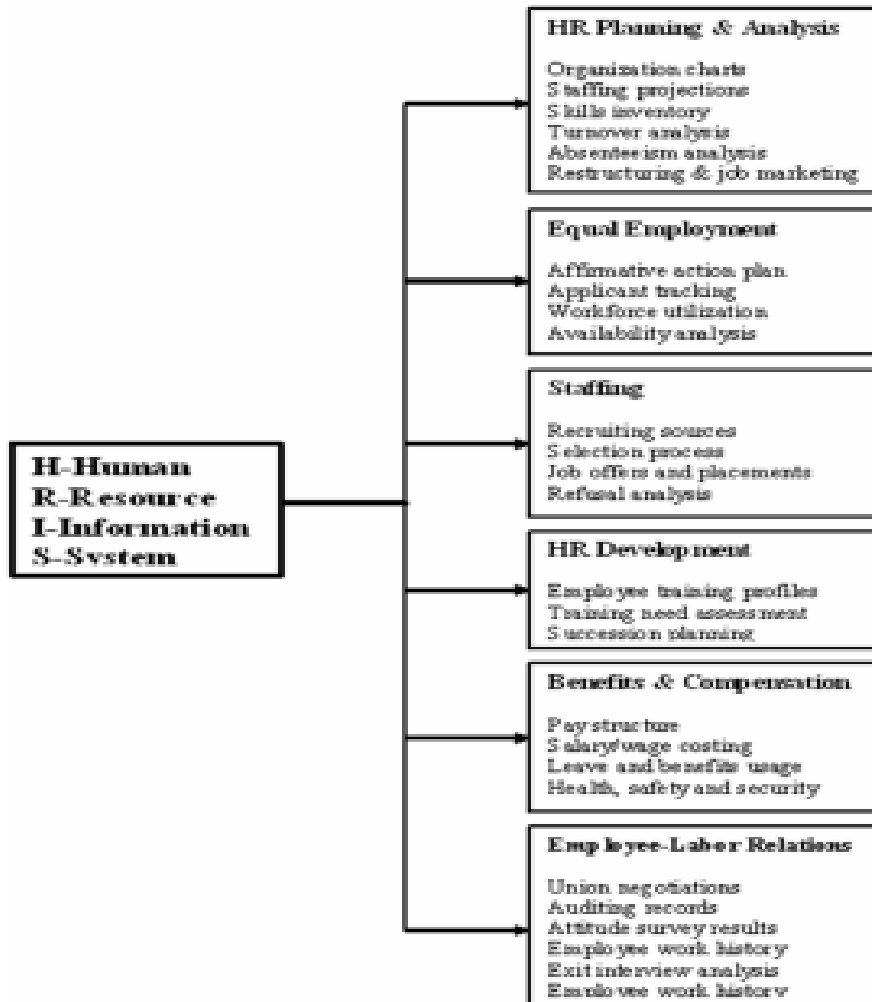


Figure 2: Model of Human Resource Information Systems (HRIS), source: Aggarwal(2012)

2.2 Empirical Literature Review

2.2.1 Human Resource Information system application usage

Study on India (Saharan & Jafri, 2012) also support De Alwis (2010) finds and concluded that recruitment and selection (67.2% and 71.9%, respectively), payroll service (67.2%), providing general information (67.2%), compensation (67.2%), performance appraisal (62.5%) and job

analysis and design (62.5%) (Saharan & Jafri, 2012). Also HRIS was quite in use in corporate communication (48.2%) (Saharan and Jafri, 2012). (Teo 2001) training and development (72.5%) is most popular future applications of HRIS, career development (60.8%) and performance appraisal/management (58.8%). There appears to be shift towards strategic applications of HRIS. Over the years HR departments have adopted Information Technology (IT) to automate administrative tasks such as Payroll, in order to free up time for more strategic tasks within their organizations. Today around 93% of organizations reportedly use HRIS for administrative (e.g. Payroll or Benefits administration), 66% for service delivery (e.g. HR Portal), 58% for workforce management (e.g. scheduling), 55% for talent management (e.g. performance management) and 39% for business intelligence related activities (Harris & Spencer, 2015). However, many studies have shown that companies have started using sophisticated HRIS like training and development, performance management, compensation management and corporate communication (Crestone, 2006; Alwis, 2010; Saharan and Jafri, 2012). Crestone (2006) in HCM Surveys on US companies broadened the scope of HRIS applications. Administrative HRIS was still the most popular application (62%), companies reported an increasing use of strategic applications i.e. talent acquisition services (61%), performance management (52%), or compensation management (49%) (Crestone, 2006). (Khera & Gulati 2012) discussed HRIS usage for strategic decision making increase significantly as several authors stated in their studies.

2.2.2 Factors affecting Human Resource Information system

(Manivannan & Rajkumar 2016) in the study of Benefits and Barriers of HRIS, the researchers identified lack of funds and a lack of expertise are common barriers that affects HRIS usage in an organization. Hisham (2013) conducted research in Jordan on Factors Influencing the Successful Adoption of HRIS. The study shows the key factors that affect successful adoption of Human Resource Information Systems (HRIS) within the Aqaba Special Economic Zone Authority (ASEZA). The researchers adopted the TAM Model (Perceived Ease of Use and Perceived Usefulness), Information Technology Infrastructure; Top Management Support and Individual Experience with computer. As a result, the study confirmed that IT infrastructures have a positive and significant effect on the successful adoption of HRIS. But there is no significant of Perceived Usefulness, Perceived Ease of Use, Top Management Support, and

Individual Experience with Computer on the successful adoption of HRIS. **Sabrina** Jahan (2014) has identified major factors that affect implementation and adoption of HRIS. Lack of management commitment and the high cost of the HRIS being the major barriers to the success of the HRIS. Ponduri (2016) stated that organization system integrity ensured through successful HRIS implementation. Lack of successful implementation of HRIS leads the organization to perform most of HR practice manually. The researcher in this study identified that the organization still has not fully integrated aspect human resources. The researcher also identified that lack of training is barriers that creates major drawback through practices. Markos(2013) researched conducted on Addis Ababa ,Ethiopian on the selected public sector organization. HRIS subsystems such as recruitment, training and development, performance management, compensation and employee administration contribute to HR division. In addition to that the study determined the challenges associated with its implementation in selected public sector organizations in Addis Ababa. The researcher in this study identified several challenges that affects organization HRIS implementation. These factors which contribute for the poor implementation of HRIS are lack of funding to acquire, update, and maintain critical HRIS, lack of expertise in IT to operate the HRIS and insufficient financial support. Juma and Gladies (2017) research conducted in Uganda on Employee Adoption and Use of Human Resource Information Systems from Ugandan Local Government Perspective. The research objective was to determine the factors or causes of employee adoption and use of HRIS in the Ugandan local governments' services. TOE framework as the research model used in this study and categorized the possible adoption factors. In this study the adoption and usage of HRIS has positive relationship with IT knowledge and IT infrastructure, organizational compatibility and top management support. The researchers proposed that the central governments in developing countries should earnestly consider the technological and organizational factors in the adoption of HRIS in the context of local governments. Ngai and Wat (2006) and Batooletal. (2012) stated that the lack of funds and a trained staff are the greatest barriers. Kovach and Cathcart (1999) reach a similar conclusion, stating that a lack of financing and support from top-level management were the biggest barriers to achieving the full potential of HRIS. They also argued HRIS implementation suffered from a lack of HR knowledge amongst system designers and the lack of technology knowledge amongst HR users.

2.3 Conceptual Framework

The Technology-Organization-Environment (TOE) framework was created by Tornatzky and Fleisher (1990). TOE model deals about the factors the firm faced on new technological adoption and implementation. TOE describes an organization influenced factors that affects technology adoption. TOE describes technological adaptation and implementation is influenced by three context ,the technological context, the organizational context, and the environmental context (Tornatzky and Fleisher 1990). The technological context refers to technology related relevant with the firm which can be inside the firm or outside the firm called internal and external technologies context. Technologies may include both equipment as well as processes. The organizational context refers to the characteristics of the firm, including the firm's size, degree of centralization, degree of formalization, managerial structure, human resources, amount of slack resources, and linkages among employees. The environmental context includes the size and structure of the industry, the firm's competitors, the macroeconomic context, and the regulatory environment (Tornatzky and Fleisher 1990). Thus, these three elements influence the way a firm sees the need for, searches for, and adopts new technology.

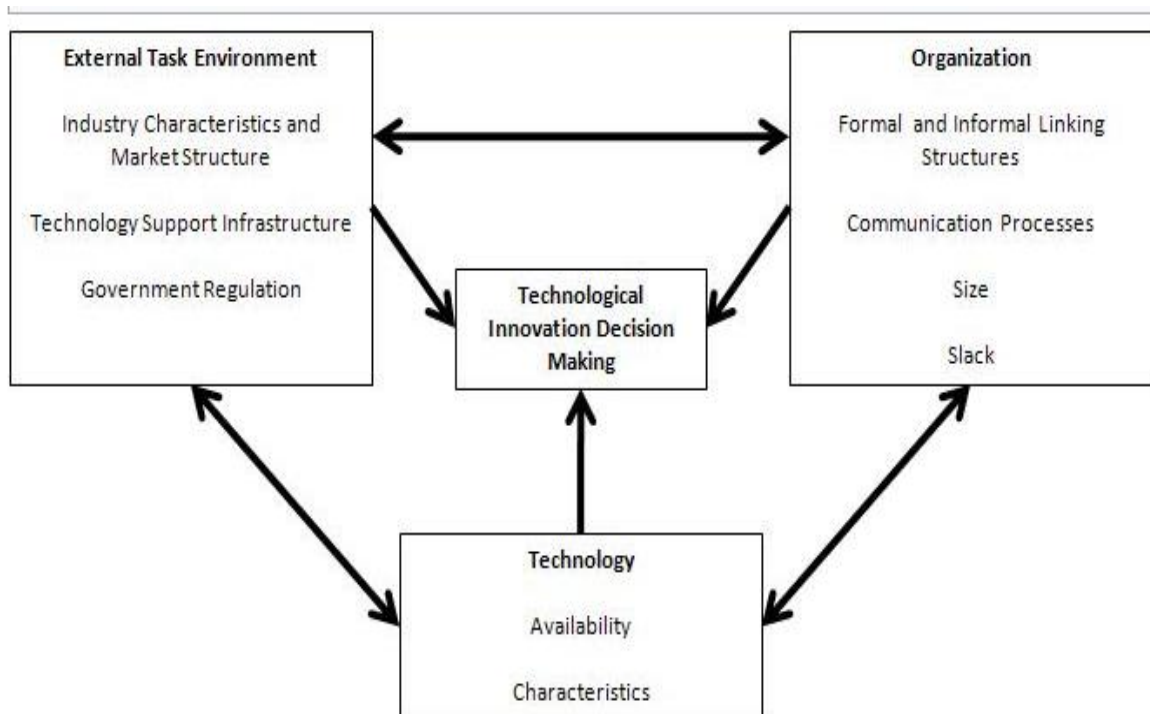


Figure 3: TOE framework

TOE framework is an organization level theory that has vital impact on the adoption decisions of innovation. It is the most widely applied framework to examine the influence of adoption factors for technology innovation in the organizations. Some studies of technology adoption were conducted in hospital setting and found the aptness of applying the TOE framework. Moreover, in the contemporary research, TOE framework was used to explore the determinants of HRIS adoption in organizations. Hence, it shows the aptness of applying TOE framework in the present research. The researchers adopted the Technology-Organization-Environment (TOE) framework and categorized the possible adoption factors.

Conceptual Framework of the Study

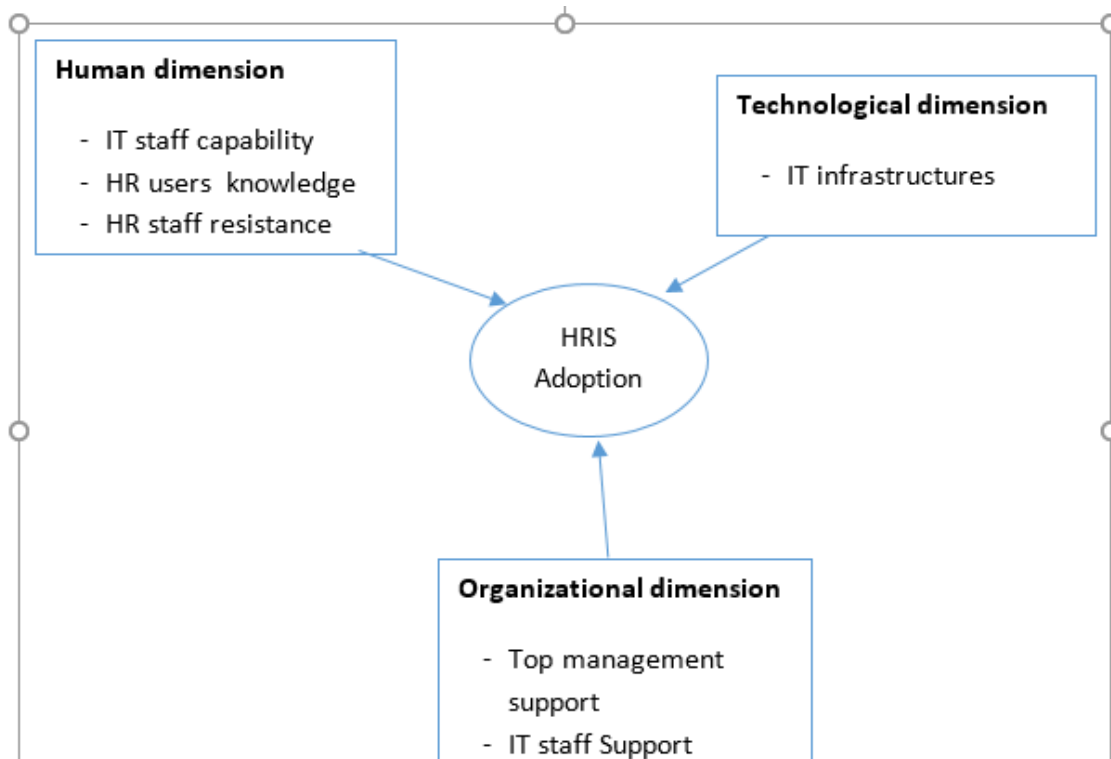


Figure 4: Conceptual Framework of the Study, Source: Developed by the researcher

2.3.2 Research gaps of the related works

The review of the literature and the related works assessing HRIS application and on factors affecting the usage of HRIS identifies some gaps: - Several conducted studies were focusing on HRIS implementation barriers and majority of the studies have been conducted in developed countries. Moreover, few studies conducted which shows that there has been little exploration of

issues associated with HRIS Usage. Therefore, this research attempted to work upon the previous related work and to address identified gaps in the related works, this study set out to assess HRIS application in Ethiopian Airlines at HR department.

CHAPTER THREE: RESEARCH METHODOLOGY

The primary aim of this chapter is to provide an overview of the research methodology used to investigate the research problem. It covers the research design, source of data, sampling method, data collection procedure and methods of data analysis in relation to assessing the HRIS in Ethiopian Airlines at HR department.

3.1 Research Setting

This study is conducted in the city of Addis Ababa, Ethiopia. The research is planned to be conducted in Ethiopian Airlines head office premises found in Addis Ababa, Bole International Airport. And the research mainly focuses on employees HR department. staff.

3.2 Research Approach

There are generally three types of research methodologies identified by Creswell (2003). The study used a quantitative research technique. Among the quantitative techniques, survey method was applied. Thus, data was gathered from sample of HR staff via self-administered closed ended questionnaires. As (Zikmund, 2000) defined, survey is a research technique in which information is gathered from a sample of people by the use of a questionnaire. Quantitative data is about numbers in general terms. They are all such data that are usually quantified to help answer research questions and meet pre specified objectives (Lewis ,2007). Quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. The quantitative approach has provided a suitable research data collection strategy, allowing the collecting of large data amounts from a huge population. The construct was subjected to the scale reliability procedure of SPSS , using the Cronbach's Alpha Cronbach (1951), criterion to assess the internal consistency of the studied construct. From the above argument, this research used quantitative research approach. Quantitative research approach is selected because it provides a statistical measurement that enables to assess HRIS applications and to identify major HRIS factors by comparing with other factors mention in this study, to provide answer for research questions and meet pre specified objectives regarding the assessment of HRIS in the Ethiopian Airlines at HR department.

3.3 Research Design

A research design is a function of the research objectives, is defined as “a set of advance decisions that make up the master plan specifying the methods and procedures for collecting and analyzing the needed information” (Burns & Bush, 2002). An appropriate research design is essential as it determines the type of data, data collection technique, the sampling methodology and the budget (Hair, 1998). This study uses a descriptive type of research design. Descriptive research design was used, because the major purpose of descriptive research is description of the state of affairs as it exists at present (Kothari, 2004). Descriptive research method is a method that describes the study systematically, factually and accurately utilizing facts, behaviors and relationship between the phenomenon being studied (Suryabrata, 2003)

3.4 Population, Target Population, Sample Frame and Sampling

The population is also referred to as the universe. The collection of all possible observations of a specified characteristic of interest is called a population. For the purpose of this study, the population of the study was employees of Ethiopian Airlines. Target population includes all the members real or hypothetical set of people, events or objects to which researchers wish to generalize the results of their research (Singleton and Strait 2010). The target population for a survey is the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize.

3.4.1 Study Setting

The research is planned to be conducted in Ethiopian Airlines head office premises found in Addis Ababa, Bole International Airport. And the research mainly focuses on employees HR department. staff.

3.4.2 Target Population

The target population for a survey is the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize. For the purpose of this study, Ethiopian Airlines HR staff are target population for this research. This consisted of all permanent employees under HR department of Ethiopian Airlines.

3.4.3 Sample Frame

A sampling frame is a list or other device used to define a researcher's population of interest. The sampling frame defines a set of elements from which a researcher can select a sample of the target population. For the purpose of this study the sample frame was confined to all staff in HR department.

No.	Position Name	Total
1	HR manager	13
2	Team Leader	12
3	HR Experts	112
4	HR Head Admin Assistance	3
	Total	140

Table 1 : HR staff structure in HR department

3.5.5. Sampling Method and Technique

Sampling is the method of selecting a representative subset of the population called sample. Sampling makes research more accurate and economical. It's the sampling method which actually determines the generalizability of the research findings. In simple words, the process of choosing a sample of the population to study is called sampling. There are two main types of sampling techniques: Probability Sampling Design and Non-Probability Sampling Design. Probability Sampling method refers to the rules and procedures by which some elements of the population are included in the sample. Probability sampling, each sample has an equal probability of being chosen. probability sample is one in which each element of the population has a known non-zero probability of selection. This method of sampling gives the probability that sample is representative of a population. Unlike probability sampling method, non-probability sampling technique uses non-randomized methods to draw the ample. To conduct this research probability sampling method are used. The probability sampling method specifically the simple random is used to identify the sample for the study.

3.5.4. Sampling Design

A sample is a subset of the population being studied. It represents the larger population and is used to draw inferences about that population.

3.5.4. Sample Size Determination

The target population of this study is permanent staff working in the HR department of Ethiopian Airlines. In order to determine the sample size; the study used a technique that enabled the researcher to have appropriate sample size to represent the target population. The study took sample of 77 participants from HR employees. This refers to the number of items to be collected from the universe to constitute a sample (Kothari ,2008). Sampling is a technique where the entire population that meet the criteria (e.g. specific skill set, experience, etc.) are included in the research being conducted (Ilker al et., 2016). Thus, the samples were selected from the Human resource. According to (Kothari, 2004), statistical methods can be used to determine sample size using the simplified formula displayed below.

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2(N - 1) + z^2 p \cdot q}$$

Where

n= is the sample size for the research

z= confidence level for normally distributed population, usually at 95 % (z=1,96)

p= proportion or ratio of factor/variable, statistically it is indicated that p=0.5 is used when to get optimal sample size or even if the value is unknown.

q=1-p=1-0.50=0.50

e=margin of error, considering at 7.5%

N= total population , 140,

Thus, the sample size for this study is;

p- Probability of the variable or incidence under study or subject of interest, q=1-p, to obtain maximize sample size it is advisable to use p=0.5

N= total sampling frame population under study (in this case the total number of human resources expected to answer questions for this study; i.e. 140

$$n = \frac{(1.96)^2 \cdot (0.5)(0.5) \cdot 140}{(140 - 1)(0.075)^2 + (0.5)(0.5)(1.96)^2} = 77$$

Rounding up the above number and got 77 as the maximum sample size for the study. Therefore, for this study statistically determined sample size is 77. A total of 77 questionnaires were distributed to the respondents of the selected organizations.

3.5.6. Sampling Procedure

Sampling is a process or technique of choosing a sub-group from a population to participate in the study; it is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected (Ogula, 2005). There are two major sampling procedures in research. These include probability and non-probability sampling. Since simple random sampling is easy to use and accurately representation the population, this research used simple random sample.

3.6. Types and Sources of Data

The primary data for this study used to collect using semi structured questionnaire and carefully designed closed ended questionnaire.

3.7 Data Collection Instrument

The study used primary data in order to get a view on the practices of HRIS in the selected department. For primary data collection, questionnaire used to be taken as a preferable data-gathering tool for this research because of two reasons. It allows the researcher to collect information on facts and attitudes from a wide range of sources. Moreover, it is one of the most important tools to guide the respondent since it gives clear choices to check. The questionnaire started with a brief description of the meaning of the main concepts, and it gave instructions on how to answer each section of the questionnaire. It includes many questions which are consistent with the research aims. For that reason, the research survey could be described as being comprehensive. It is divided into two parts: The first part includes personal information of the respondents such as gender, area of profession and years of experience. The second part includes questions related to HRIS applications.

Many models have been developed to measure and evaluate the success of Information systems, DeLone and McLean model is the most popular model of IS success measurement. Since it is a process/casual and well accepted model, it is selected or adapted for this study to identify the factors that affect the usage of HRIS. In many cases, according to DeLone& McLean (2002), it is a suitable construct to measure success. In electronic system context, use measures everything from visiting a website to navigation within the site, to information retrieval, to execution of transaction (DeLone& McLean, 2003). They also mentioned that system use has been measured in terms of frequency of use, time of use, number of access, dependency and usage pattern. Seddon (1997) also suggest the items to measure use include the time spent in using the system, frequency of use, number of users. The literature suggests that frequency of use is the most used item to measure.

3.7.1 Questionnaire

Questionnaire with close-ended items have been used to get the required data from the respondents of HR employees working under HR department in Ethiopian Airlines. A 5-point scale questionnaire was used to obtain data from HR Head admin assistant, HR Officer, and HR manger. Accordingly, the scales were ranging from 1= strongly disagree to 5=strongly agree. The questionnaire has three parts. The first part deals with demographic information and the next 2 parts contained the constructs of the model which are used to measure the HRIS usage level data of the study (See Appendix A).

3.8 Data collection procedure

In this study, the data collection procedure was started by developing questionnaires as an instrument to collect data. The researcher was taken permission from HR department after explaining the purpose of the study. Then after permission was approved, questionnaires have been distributed to the respondents. Even though, the purpose of the questionnaire has been clearly indicated in the questionnaires the researcher also made face-to-face interaction and gave awareness about the purpose of the study while distributing the questionnaires. The questionnaires were delivered to 77 respondents in Ethiopian Airlines at HR department. Subsequently, continuous follow-ups were conducted through phone and a visit was made to encourage the respondents to finalize the questionnaires timely with their genuine feedbacks.

After the data was collected, the next step was securing the collected data by checking the completeness, cleanness and accuracy of the data to be free of error and logged and tracked on excel sheet. Eventually, Statistical Package for Social Science (SPSS) were used to code all the required variables and prepared the data for analysis.

3.9. Validity and Reliability

Reliability and Validity are used to measure quality of the quantitative data. Reliability is used to measure the consistency of the survey, whereas validity is used to measure the degree to which a scale or set of measures accurately represents the construct Hair(1998).The questions for the study were designed from the themes of the constructs of the DeLone and McLean's model. The model has been used repeatedly and though the different authors used the constructs to test different relationships within the model, the results remained the same. The variables of the model are still considered relevant by different authors as they continue to be tested by many researchers. The quantitative approach has provided a suitable research data collection strategy, allowing the collecting of large data amounts from a huge population. The construct was subjected to the scale reliability procedure of SPSS , using the Cronbach's Alpha Cronbach (1951),criterion to assess the internal consistency of the studied construct. The Cronbach' Alpha coefficient is above 0.75. Where Cronbach's Alpha value is over 0,70 and even more, the scale is considered reliable (Sekeran, 2003; Sipahi , 2008).

3.5 Methods of Data Analysis

The data analysis for the research was descriptive type. The student researcher has examined the collected data in order to find constructs, themes and patterns that can be used to describe and explain the phenomenon being studied. Descriptive statistics analysis was applied for the presentation, interpretation and discussion parts on various categories of the evaluation system. Frequency tables, charts, graphs and percentages were used as appropriate to present, analyze and interpret the results of the study. The data gathered through questionnaires was coded, entered into computer, analyzed and presented in the form of charts, diagrams, and tables by using SPSS (Statistical Package for the Social Sciences) version 24 software packages. Finally, conclusions were made based on the findings of the study and recommendations were forwarded on the basis of the data analyzed.

3.6 Ethical considerations

The data collected confidentially and the anonymity of the respondents has been ensured. Respondents did not ask to provide any personal details. A covering letter was attached, and the purpose of the research was explained. Respondents have been informed not to participate if they so wished. Data collection permission from Ethiopian airlines has been secured from Ethiopian airlines HR management.

3.7 Summary

This Chapter described the research methodology and techniques used for gathering and analyzing the research data. Generally, the chapter discussed the research design, research approach and the research model used. Study population and sampling, methods and procedure of the data collection have been covered. Next, the technique of the data analysis applied on the collected data is discussed.

CHAPTER FOUR: Results and Discussions

This chapter focuses on presenting, analyzing and interpreting the data collected from primary data sources about HRIS practices in Ethiopian Airlines HR department. Descriptive statistics were used to analyze the data.

4.1 General Information

The study collected quantitative data using structured questionnaires from 77 HR staffs working under HR department, however 68 questionnaires of the total were captured which has 90% response rate Thus, the findings and outputs can be summarized and generalized for the rest of the target population.

4.3 Background characteristics of the Respondents

This presentation of the questionnaire includes personal or background information obtained from the questionnaire distributed for HR employees of Ethiopian Airlines. In which it is illustrated clearly as follows.

Profile of the Respondents		No	%
Sex	Male	46	65.7%
	Female	24	34.3%
Age	18-27	27	38.6%
	28-37	28	40.0%
	38-47	11	15.7%
	48 & above	4	5.7%
Qualification	Below High School	0	0.0%
	High School Completed	0	0.0%
	Certificate/Diploma	2	2.9%
	First Degree	55	78.6%
	Master's Degree	13	18.6%
	PHD	0	0.0%
Position	Admin Assistance	3	4.3%
	HR Expert	51	72.9%

	HR Manager	6	8.6%
	Team Leader	10	14.3%
Services Years	Less than 2 years	15	21.4%
	2-5 years	23	32.9%
	6-10 years	19	27.1%
	More than 10 years	13	18.6%

Table 2: Profile of the Respondents

As reflected in table 2 above, 46 (65.7%) and 24 (34.3%) of respondents are male and female respectively. With regard to age range, 27 (38.6%) of respondents are 18-27 years and, 28(40%) are 28-37 years old, 11(15.7%) are 38-47 ,4(5.7%) are above 48 years. Those aged 48 years and above contributed to 5.7% of the total respondent as indicated in Table 2 which indicates all age brackets were put into perspective therefore reducing levels of biasness in the study. There were no respondents with the qualification level of below high school and High school completed.2(2.9%) have certificate and diploma,55(78.6%) have first degree and the other 13(18.5%) have Master's Degree qualification. It was observed that there was high literacy level which is vital in system utilization. In relation to position they have in their organization,3(4.3%) of respondents are HR head admin assistance, 51(72.9.6%) of respondents are HR experts,6(8.6%) are HR manager and 10(14.3%) are team leaders. The respondents were requested to indicate the period under which they had worked at the organization. This information aimed at testing the working experience appropriateness of the respondent in answering the questions. It was expected that the longer the years of experience is more likely to obtain reliable information on HRIS as they have interacted with the system longer. Also the more knowledgeable the respondent would be about the system and operations. With relation to experience of respondents, 15(21%) respondents have less than 2 years' experience, 23(32.9%) have 2-5 years' experience,19(27.1%) has 6-10 years' experience and 13(18.8%) respondents have more than 10 years' experience. Further, many years of experience enables respondents to provide accurate information of a given concept in the organization.

4.2 Positions of the Respondents

HRIS users' categorization

Position	Male		Female	
	No.	%	No	%
Admin Assistance	1	33.3%	2	66.7%
HR Expert	33	64.7%	18	35.3%
HR Manager	6	100.0%	0	0.0%
Team Leader	6	60.0%	4	40.0%

Table 3 : HRIS users' categorization

As reflected in table 3 above, 33 (64.7%) and 18 (35.3%) of respondents are male and female HR Expert respectively. With regard to management and team leader positions, male respondents are dominant in figure, all HR manager respondents are male 6 (100%) and also 60% of respondents among team leader positions are male.

4.4 Results of data on HRIS users

Regarding with table 4 below, the respondents are asked to rate whether they used the HRIS in their department or not. The respondents' reaction on the statement, "Do you use HRIS in your department", respondents rated as 42(60%) were responded strongly agree, 28(40%) were responded agree. All of the respondents (100%) said they used HRIS where (40% agree and 60% strongly agree). This could imply that the respondents are actual users of the system-HRIS.

	Agree		Strongly Agree	
	No.	%	No.	%
Do you use HRIS in your department	28	40%	42	60%

Table 4: data on HRIS users

4.5 Results of data on HRIS System Usage

This category measures the extent to which Ethiopian Airlines ,HR department is utilizing the current HRIS. In this part, the study has attempted to assess HRIS application on the following manner.

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	No.	%	No.	%	No.	%	No.	%	No.	%
HRIS for record keeping &time	1	1.40%	0	0.00%	0	0.00%	23	32.90%	46	65.70%

HRIS for HR development	5	7.10%	16	22.90%	8	11.40%	19	27.10%	22	31.40%
HRIS for compensation	0	0.00%	0	0.00%	1	1.40%	14	20.00%	55	78.60%
HRIS for recruitment/selection	0	0.00%	2	2.90%	6	8.60%	26	37.10%	36	51.40%
HRIS for performance	1	1.40%	4	5.70%	3	4.30%	19	27.10%	43	61.40%
HRIS for turnover tracking	18	25.70%	25	35.70%	12	17.10%	6	8.60%	9	12.90%
HRIS for job evaluation and Job analysis	8	11.40%	24	34.30%	15	21.40%	13	18.60%	10	14.30%
HRIS for succession planning	3	4.30%	17	24.30%	9	12.90%	24	30.30%	17	24.30%
HRIS for management-employee relations	10	14.30%	19	27.10%	15	21.40%	16	22.90%	10	14.30%

Table 5 : Results of data on HRIS System Usage

In relation to the item 1 of the above Table 5, the respondents were required to rate HRIS used for record keeping and time management purpose, for this category, 46(65.7%) responded strongly agree,23(32.9%) responded agree and 1(1.4%) responded disagree. This could imply that Ethiopian Airlines HR department employees HRIS system practice is high in record keeping and time management purpose. According to Manzini (1986) basic personnel module is normally the first to be created since it is the cornerstone of the basic information to be found in the system. It includes information such as the name, Identity number, date of entry, job classification, location, job specifications and descriptions, salary comparison data, address, telephone numbers among others. HR department must keep personnel records to satisfy both external regulations (such as federal and state laws) and internal regulations, as well as for payroll and tax collection and deposit, promotion consideration, and periodic reporting. For the statement that HRIS uses for HR development and training, the result showed that, 22(31.4%) and 19 (27.1%) of respondents revealed strongly agree and agree respectively. Whereas,16(22.9%) of participants revealed that disagree. On the point that Ethiopian Airlines, HR department uses training and development subsystem of HRIS at a medium level(54%). This could imply that it is not fully utilizing the system, as these functions such as tracking qualifications and skills of the employees are basic for the department. The HRIS according to the respondents was mostly used for compensation subsystem at an optimum level. Near to 80%

of respondents confirmed that they use the system for compensation and benefits management, whereas 7% and 22% of them strongly disagree and disagree respectively. Based on this data ,Ethiopian Airlines system engagement for compensation are optimal. On the other hand, more that 80% of the respondents agree the use of the system for recruitment and selection. In the same table above, nearly to 60% of respondents confirmed that the use of the system for performance appraisal whereas 1.4% and 5.7% of them strongly disagree and disagree respectively. Finally, it is evident that there is a better system usage level for HRIS for Performance Appraisal since the agreed percentage is 88. As we can see from Table 5, it is possible to learn that 43(60.5%) of the total respondents disagreed with the statement that the HRIS for turnover tracking , while 15 (21.3%) agreed and 12(17.1%) of the respondents became neutral. This shows poor system engagement in this area of turnover tracking HR activity in the department. In the same table of Item 6, the respondents required to respond their experience on, HRIS is for job evaluation, for this item 24(11.4%) and 8(11.4%) of respondents responded disagree and strongly disagree respectively, whereas 13(18%) and 10(14.4%) of respondents responded agree and strongly agree respectively. Majority of respondents confirmed that they did not used HRIS for job evaluation. On the point that HRIS used for succession planning (24%) indicated were agreement strongly, (36.%) agree. HRIS usability for turnover tracking(21%), ,Job evaluation& Job evaluation (32.9%) and for management-employee relations(37%) almost denied by most respondents and it implies that there are still several HR activities performed manually in HR department. HRIS usability for HR development(58%) and succession planning(54%) , are medium.

4.5 Mean and Standard Deviation

HRIS applications	Mean	Std. Deviation
HRIS for record keeping and time management	4.61	0.644
HRIS for HR development	3.53	1.101
HRIS for job evaluation and job analysis	2.90	1.203
HRIS for succession planning	3.50	1.225
HRIS for compensation	4.77	0.456
HRIS for recruitment and selection	4.37	0.765

HRIS for performance appraisal	4.41	0.725
HRIS for management-employee relations	2.96	0.921
HRIS for turnover tracking	2.47	1.232
Total	3.73	

Table 6 : HRIS usage percentage

In case of individual practices of HRIS, the mean for record keeping and time management purpose is 4.61 with 0.644 SD meaning that there is a better HRIS practice for record keeping and time management purpose in Ethiopian Airlines. This implied that the organization provide highest emphasis on record keeping and time management purpose. Furthermore, use of HRIS for Training and Development practices yields a mean value of 3.53 with SD 1.1 such practices considered in Ethiopian Airlines use moderate level of HRIS technologies for training and development purposes relative to other major HRM practices. In addition, in case of compensation management practices the use of HRIS in Ethiopian Airlines achieve a mean score of 4.77 with SD 0.456 which is the second highest among all the HRM practices considered for this research, Finally, it is evident that there is a stronger practice of HRIS for Performance Appraisal since the mean score resulted as 4.4 with SD 0.725 which is third highest among the HRM practices considered for this research. According to (Kabakci , 2012) the overall HRIS practice scored mean score of 3.75, that means the HRIS practices in Ethiopian Airlines is above average and it indicate high level. The results indicate that the extent of HRIS practice in HR department is considered to be high (i.e., 3.75%). 1 - 2.33 indicates low level, 2.34 - 3.67 indicates medium level and 3.68 - 5 indicates a high level (Kabakci Yurdakul, 2012). This implies that somehow Ethiopian Airlines is utilizing the system for limited numbers of functions but not on all functions of HRM.

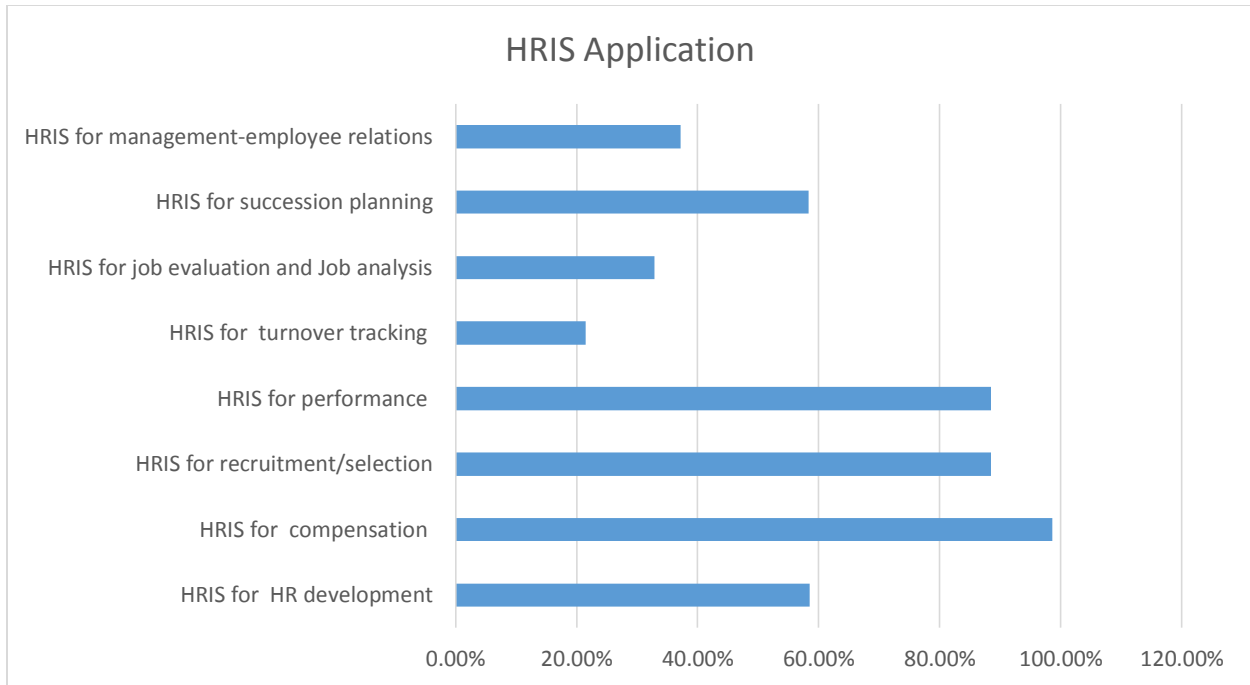


Chart 1: HRIS Application level in HR department

The Chart1 indicates that respondents are using some part of HRIS tool for their day to day activities. The extent of HRIS applications usage with respect to each HRIS subsystem such as recruitment ,payroll and others result are consistent with previous work, as the previous research on HRIS has that HRIS is usually used for administrative purposes such as employee record-keeping and payroll, instead of for strategic purposes (Kovach, 2002; Ngai & Wat, 2006).HRIS usability for turnover tracking, succession planning and for management-employee relations is below the average level by most respondents and it implies that there are still several HR activities performed manually in HR department.

4.6 Results of data on Critical factors

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean
	No	%	No	%	No	%	No	%	No	%	
	N		o		o		o		o		
Sufficient knowledge and experience amongst HR users to operate the system	13	18.6%	28	40.0%	13	18.6%	1	17.2%	4	5.7%	2.51

fully											
There is HR staff training with enough secured fund	12	17.1%	26	37.1%	22	31.4%	8	11.4%	2	2.9%	2.46
Adequate technical infrastructure to use HRIS.	5	7.1%	9	12.9%	3	4.3%	2	2.7%	37	38.6%	3.87
Expertise in IT to operate HRIS fully	20	28.6%	24	34.3%	16	22.9%	5	7.1%	5	7.1%	2.30
Staff resistance to use HRIS fully	18	25.7%	24	34.3%	19	27.1%	6	8.6%	3	4.3%	3.20
Commitment & willingness of top managers to use HRIS fully	11	15.7%	9	12.9%	14	20.0%	2	2.7%	38	38.6%	3.20
There is appropriate IT support	13	18.6%	30	42.9%	16	22.9%	9	12.9%	2	2.9%	2.30

Table 7: Results of data on Critical factors

The respondents have been asked to rate critical factors that affect utilization of HRIS system. From table 7, it is possible to learn that 41 (58%) of the total respondents disagreed for the statement that -there is sufficient knowledge and experience amongst HR users to operate the system fully, while 16 (23%) agreed and 13 (18%) of the respondents became neutral. This shows there is skill gap among HR staff to operate the system in full capacity. There is HR staff training with enough secured fund to develop HR staff, while 38(54%) disagreed and 22 (31%) of the respondents became neutral. This shows there is shortage of training to HR development due to budget to operate HRIS. However, 10% of the respondents that agree the organization secure enough budget to train and educate HR staff, that they need necessary knowledge to use HRIS. Therefore, the organization needs further investment on capacity building of the users of the system. Majority of the respondents indicated that the organization does not have adequate training opportunities for HR staffs. In a similar manner most respondents believed that the organization has better top management commitment and willingness to use HRIS fully, as it is indicated in the above table 53.2% of them agreed with the support they get from the top managements.

However above 60% of respondents negated that IT department staff provides IT support to HRIS at the expected time; among which less number of respondents 2.9% and 12.9% of them revealed strongly agree and agree respectively. Regarding the knowledge, skill and expertise in IT to operate HRIS fully the 55% of respondents negate that IT experts have no sufficient capacity related to HRIS, among which 28.6% and 34.3% strongly disagree and disagree respectively. Insignificant portion of the respondents (14.1%) were convinced with the knowledge of the IT person to provide support related to HRIS. According to the above table 7 shows that the greatest barriers for HRIS usage in Ethiopian Airlines are: - lack of expertise/knowledge in IT, Lack of appropriate IT support, lack of HR staff training due to inadequate budget and lack of sufficient knowledge and experience amongst HR users to operate the system fully. Majority of respondents stated that they were in agreement that lack of skilled Staff is a challenge as regards the HRIS in public university. Majority of the respondents indicated that were in disagreement that Lack of support from IT staff hinders the organization from achieving full potential of HRIS.

CHAPTER FIVE

Summary, Conclusion and Recommendations

The purpose of this chapter to deal with the major findings of the study & forwarded recommendations based on the findings and conclusions, and also to analyses and interpretation of the data obtained through questionnaires distributed to employees. Based on the analysis and interpretation, conclusions and recommendations of the study were made as follows.

5.1 Introduction

The purpose of this study is to assess HRIS applications in Ethiopian Airlines at HR department. Accordingly, analysis and interpretation of the data obtained through questionnaires distributed to employees in HR department. The researcher summarizes the findings and their implications based on the objectives and research questions. Further major conclusions that can be drawn from the study are also mentioned followed by key recommendations and suggestions for further research. Based on the analysis and interpretation, findings, conclusions and recommendations of the study were made as follows

5.2 Summary of the major findings

On the demographic characteristics of the respondent, the research revealed most of the respondents were relatively younger in age group of (18-37) - middle aged people. Given the education levels of the respondents, majority possessed undergraduate degrees meaning there was high level of literacy, even though majority of the respondents stated that they lacked training due to funds. This also implies that the respondents had the capacity to give quality response for the purpose of this study. Male number of respondents were more than female. Majority of the respondents (60%) had worked for 2-10 years. It can be assumed that many years of experience enables respondents to provide accurate information of a given concept in the organization such as assessing of HRIS on their own department. Majority of respondents had worked for <2 years. This implies that the respondents had worked for a period long enough to understand the systems.

5.2.1 Human Resource Information system-HRIS application summary

The findings of this study revealed that the most used HRIS application in Ethiopian Airlines at HR department are Record management , Compensation services, Performance and recruitment /selection. These are important function performed by the HR department. It can be explained that payroll and record management are basic personnel module which are normally the first to be created since it is the cornerstone of the basic information to be found in the system. It includes information such as the name, Identity number, date of entry, job classification, location, job specifications and descriptions, salary comparison data, address, telephone numbers among others. HR department must keep personnel records to satisfy both external regulations and internal regulations, as well as for payroll and tax collection and deposit, promotion consideration, and periodic reporting. HR development and succession planning are medium whereas system engagement for turnover tracking ,Job evaluation & Job evaluation and management-employee relations are less and it implies that there are still several HR activities performed manually in HR department

5.2.1 Factors associated with the usage of HRIS

The findings presented in Table 7 suggest that the greatest barriers to use HRIS application in Ethiopian Airlines at HR department were lack of IT support , lack of skilled HR staff ,lack of HR staff training due to insufficient funds and lack of expertise in IT to operate. The findings are supported by Markos(2013).The system, HRIS faced shortage of trained HR users to explore HRIS system and subsystem successfully. Currently the users of HRIS are using the system partial in their day to day operation because of the lack of detail knowledge to operate the system in full service capacity. Because of the skill gap of employees, HRIS is not fully operational. In addition to that the actual application of HRIS faces shortage of appropriate support for successful utilization of the system. HRIS may seem to lack the appropriate support with IT. Employees may believe that HRIS is as a problem solver but the system is not fully functional due to employees' skill gap & poor IT support. The other finds are lack of training due to insufficient budget for training. Employees in any organization needs the assistance on technology such as basic of computer, however due to several constraints make them neglect as the result employees sometimes resists the use and adaptation of technology in their day to day operation. Since HRIS is very important to manage the scarce human resources, its usage is challenged by many factors like, inadequate training or capacity building of employees, lack of IT support and other related factors. Moreover, delays in giving support on the system creates

low expectations of the system from the perspective of the employees in terms of speeding up their daily tasks. Due to these factors, they are not using the system frequently in their day to day operations.

From the above discussions of the data obtained from the questionnaire, accordingly, this study came up with the following major findings.

- End users of the HRIS (HR staff in this case) systems are not capable and knowledgeable on using the system end to end as the result partial manual involvement carried out which is the major cause of error and time taking process
- Lack of continuous HR staff development and others HR initiatives that develop human capital
- The actual application of HRIS faced IT expert support issue and shortage of trained users for the successfully using the system.
- Lack of HR staff training due to enough fund not secured

Therefore, as HRIS adoption model (TOE) proposed the critical factors which stimulate the decision of adoption of HRIS, four of most influential critical factors are IT support, IT expert knowledge, HR staff knowledge to operate the system and lack of training are recognized as factors on adopting HRIS in Ethiopian Airlines.

- Majority of the respondents answered that HR staff has no proper knowledge to operate the system fully 48(58.6%)
- Over 60% of the respondents answered that IT expertise knowledge are limited to support HR department staff.
- Majority of respondents (85%) were strongly believed that Ethiopian Airlines has better utilization level on some sort of HRIS application(Performance, Compensation and other
- Over (90%) respondents replied that HRIS used in an organization for record keeping and time management purpose
- Majority of respondents (88%) revealed that performance management subsystem is practice in the HR department.
- As indicated by majority of the respondents, lack of HR staff training due to budget for its HR staffs.38(54.2%)

- Among 40% of respondent's responded that HRIS used in Ethiopian Airlines for turnover tracking.

According to the findings the biggest problems or obstacles to managing a HRIS were lack of training for HR staff, lack of information technology (IT) support, IT expert knowledge and HR staff knowledge.

5.3. Conclusion

The overall purpose of this study was to assess human resource information systems in Ethiopian Airlines at HR department. The study made use of quantitative data gathered through questionnaire survey. The data was analyzed using quantitative techniques. The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) to compute frequency and mean rank. Based on the above discussed findings, the following conclusions can be made.

- Vast majority of the respondents indicated that HRIS was used mainly for administrative purposes like compensation and employee record keeping, rather than strategic applications like succession planning. Regarding usage level of HRIS in Ethiopian Airlines at HR department, the results of this study indicates that the most frequently used applications of HRIS in Ethiopian Airlines are compensation management (78% strongly agree) followed by Record keeping (65% strongly agree) and Performance management (61% strongly agree) and Recruitment/Selection(51% strongly agree). Whereas usage of other HRIS applications, such as Succession Planning was also found in Ethiopian Airlines in medium level. This result also supported by other studies ,Alwis (2010) stated that most known HR functions used in HR department HRD (training and development), recruitment and selection and performance appraisal are commonly utilized by all the companies.
- From the findings, several factors were pointed out among which included inadequate HR training, inadequate knowledge, lack of expertise(s) in IT to operate the HRIS. Likewise, lack of IT support, undermined the achievement of the full potential of HRIS. Regarding the factors that affects Ethiopian Airlines HRIS utilization, the study findings indicated that lack of continuous support of the IT staff, lack of training process, lack of expertise in IT and lack of HR staff knowlege are major factors that affect Ethiopian Airlines HRIS system usage. Similarly studies that supports this finds are Ponduri (2016), Ngai (2012) , Kovach (1999) reached a similar conclusion. that there are lack of continuous support of the IT staff.

Hence HRIS in Ethiopian Airlines is not fully operational because of the problems related with lack of support from IT, skill gap of the HR and IT employees and lack of HR staff training. In this case, the actual practice of HRIS is not effective, efficient and complete. As a result, the study confirmed that lack of appropriate IT support; budget constraint, IT knowledge and HR experts were found to have significant impact in the adoption and usage of HRIS. Ethiopia Airlines should empower human resource for further handling its information for job analysis, turnover tracking and screening of its staff on day to day basis, As a result, there are manual HR data processing in Ethiopian airlines which cause error, inefficiency and slowness in making decision.

5.4 Recommendations

The following recommendations are given based on the findings of the study:- According to the data analysis and interpretation ,Ethiopian Airlines HRIS practice and subsystem usages level are less engaged on job evaluation and job analysis, turnover tracking ,management-employee relation. As it is stated in chapter four section 4.6, challenges like the lack of skill on the system, lack of train due to funds, lack of appropriate support and lack of expertise in IT to operate the HRIS constraints makes HRIS usage weak. The researcher proposed that extensive attentions need be given to the applications of HRIS, to be focused on aspects required for supporting decision making process, rather than being just for administrative applications . Nowadays, human resource widely recognized as strategic assets in any organization. In order to ensure managing such scares resource wisely and efficiently, Ethiopian Airlines should engage in HRIS applications such turnover tracking and manger-employee relation which help more on supporting decision making process. In order to increase the utilization level of HRIS in HR department, the organization should equip and enrich HR staffs with continuous training and development. Providing appropriate and continuous training programs for the system users. It will help them to start working on the system properly, improve their understanding how they can work on the system easily, it will help them to identify the available supportive features they can use in the system. Ethiopian Airlines should perform regular training need assessment specifically for HR staff and the organization should give attention on HCM human capacity management and also should design new HRD programs like

training career development etc. Moreover, IT support needs standards to provide nonstop support for HR department as lack of continuous IT support was one of the major barrier identified in this study. Place qualified IT personnel on the system who can assist HR professionals when they face difficulties during practicing or working on the system. IT staff should also have visibility of their responsibility to deliver the service on time. IT has not been fully engaged to support the successful utilization of HRIS, particularly in HR department as the result most HR practices are performed manually. Due to the above listed factors, they are not using the system frequently in their day to day operations. The researcher proposed that organizations should have to revise their current HR and HRIS policies and procedures to promote HRIS application practices and to achieve excellent organizational performance. Finally, the findings of the research would give valuable insights about the practices of HRIS in the organizations.

5.5 Recommendation for Future Research

The researcher recommended that study should be needed to explore the impact of IT in HRIS.

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APPENDICES

Appendix A: Questionnaire Survey

**ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND
ECONOMICS
SCHOOL OF COMMERCE**

Questionnaire

Dear Sir/Madam

This survey is meant to collect relevant information from employees of Ethiopian Airlines of HR department staff to conduct research for fulfillment of Masters of Art degree in Human resource management. This study aims to assess Ethiopian Airlines Human Resource Information Systems(HRIS) Practice. You are selected to participate in this research voluntarily. The information you provide will be used only for academic purpose and will be kept strictly confidential. Your candid opinion is highly appreciated.

Thank you in advance for your time and cooperation!

Note: Please don't write your name

Part I. General Profile (Please put "X" mark in the blank line that best describes you)

1. Gender? Male _____ Female _____
2. Age 18-27 ____ . 28-37 ____ . 38-47 ____ . 48 & above _____
3. Educational status
Below high school _____ High school completed _____ Certificate/
Diploma _____ First Degree _____ Master's Degree _____
PHD _____

4. What is your period of employment in this organization?

Less than 2 years _____ 2-5 years _____

6- 10 years _____ More than 10 years _____

5. What is your position in this organization? _____.

Part II. HRIS Usage Status in the Organization

Listed below are descriptive statements about HRIS usage status in Ethiopian Airlines. For each statement, please indicate your choice by marking “X”.

S. No	HRIS Usage Status in the Organization	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
		5	4	3	2	1
1.	Do you use human resources information system –HRIS (SAP ERP) in your department.					
2.	Do you use HRIS (SAP ERP) for record keeping and time management purpose (attendance reporting and analysis)					
3.	Do you use HRIS(SAP ERP) for HR development (training and development, career management)					
4.	Do you use HRIS (SAP ERP) for job evaluation and Job analysis					
5.	Do you use HRIS (SAP ERP) for succession planning					
6.	Do you use HRIS(SAP ERP) for compensation and benefits management (salary and payroll operations)					
7.	Do you use HRIS (SAP ERP) for acquiring HR (recruitment and selection)					
8.	Do you use HRIS (SAP ERP) for HR evaluation (performance appraisal)					

9.	Do you use HRIS (SAP ERP) for management-employee relations.					
10.	Do you use HRIS(SAP ERP) for turnover tracking					

Part III. Critical factors that affect the Utilization of HRIS :Listed below are descriptive statements about critical factors affecting full utilization of HRIS in Ethiopian Airlines. For each statement, please indicate your choice by marking “X”.

S. No	Factors affect utilization of HRIS fully	Strongly Agree 5	Agree 4	Undecided 3	Disagree 2	Strongly Disagree 1
1	There is sufficient knowledge and experience amongst HR users to operate the system fully					
2	There is HR staff training with enough secured fund					
3	There is adequate technical infrastructure to use HRIS.					
4	There is expertise in IT to operate HRIS fully					
5	There is staff resistance to use HRIS fully					
6	There is a commitment and willingness of top managers to use HRIS fully.					
7	There is appropriate IT support					

