



ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE
DEPARTMENT OF HUMAN RESOURCE MANAGEMENT

**EFFECTS OF HUMAN RESOURCE INFORMATION SYSTEM ON
ORGANIZATIONAL EFFICIENCY: ETHIOPIAN SHIPPING AND
LOGISTICS SERVICES ENTERPRISE**

**By
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A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE
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SHIPPING AND LOGISTICS SERVICES ENTERPRISE**

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DECLARATION

I, Ayahlush Mamo, declare that this thesis is my original work, prepared under the guidance of Seifu Mamo (PhD). All sources of material used for the thesis have been suitably acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of earning any degree.

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LETTER OF CERTIFICATION

This is to certify that Ayahlush Mamo has carried out this project work on the topic: Effects of Human Resource Information System on Organizational Efficiency: Ethiopian Shipping and Logistics Services Enterprise under my supervision. This work is original and suitable for the submission in partial fulfillment of the requirement for the award of Master of Art in Human Resource Management.

Seifu Mamo (PhD)

Signature

Date

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Abstract

Human Resource Information System (HRIS) can make a tremendous effect on the human resource function as it allows companies to store and retrieve large amounts of information quickly and efficiently. The Ethiopian Shipping and Logistics Services Enterprise (ESLSE) is a public enterprise and it is vested with the responsibility of rendering effective and efficient sea-transport and logistics services. The ESLSE is one of such organizations implemented HRIS in its operations. However, the effectiveness of the HRIS in the Enterprise has not been assessed. Thus, the purpose of this study is to investigate the effect of HRIS on organizational efficiency in ESLSE in Ethiopia. The researcher used quantitative and qualitative methods of data collection. The quantitative kind of research method was applied through survey questionnaire with simple random sampling method and qualitative data collection with purposive sampling method through in depth interview. Its 92 employees as sample respondents are asked through questionnaire and 3 key informants are interviewed. The questionnaire data is analysed in form of quantitative (frequencies and percentages) and inferential analysis (multivariate regression and correlation analysis) using a statistical tool (SPSS-Version 20. The findings of the study have confirmed that the HRIS implemented in ESLSE has many advantages in organization efficiency of the ESLSE, but there are shortcomings in terms of the ability of the employee to operate self-reliantly and to solve the problems encountered independently. Still, more training and continuous education should be provided to the user of the HRIS. The results of this study are in line with previous studies, somehow they are similar.

Key Words: *HRIS, Organizational Efficiency, ESLSE*

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List of Abbreviation

ESLSE	Ethiopian Shipping and Logistic Enterprise
HR	Human Resource
HRIS	Human Resource Information System
HRM	Human Resource Management
IS	Information Systems
MRA	Multiple Regression Analysis
OLS	Ordinary Least Squares
OP	Organizational Performance
ROI	Return on Investment
SHRM	Strategic Human Resource Management
SPSS	Statistical Packages for Social Science
TAM	Technology Acceptance Model

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CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Human resource management (HRM) issues have always been major concern for managers at all levels, because they all meet their goals through the efforts of others, which require the effective and efficient management of people (Shibly 2011). The voluminous array of HRM activities for example, planning, recruiting, selection, and training just to mention but few place enormous responsibilities on supervisors and managers alike (Janet 2015). These encirclement analysing jobs, planning labour needs, selecting employees, orienting and training employees, managing compensation, communicating which includes counselling and disciplining, and maintaining employee commitment (Chauhan, Sharma and Tyagi 2011).

The HR function was the last to receive such support, mainly because of its complexity and multitude of data from recruitment to termination of employees at the same time as other functional units in organizations received budgeting for IT and were automated with the advent of technology (Nikhal and Sanjana 2013). They also stated that HR has managed to move from the dark and paper driven age to state-of-the-art information systems in a short period of time regardless of its delayed automation. Technology can massively advance the information available to HR, permitting the department to raise the value of the organization's human capital. HR has also the ability to reduce turnover, better develop employees, and attract the best in new recruits through focusing on using such technology to continuously improve the quality of the work environment.

Human resource information system (HRIS) can make a tremendous effect on the HR function as it allows companies to store and retrieve large amounts of information quickly and efficiently. This results in the elimination of work duplication and ensures streamlined processes, thereby minimizing cost (Ilhami, Tahir and Abdullah 2016). However, Nikhal and Sanjana (2013) stated that the benefits of the HRIS, if not effectively implemented, may not be realized or may only be randomly achieved in certain areas in an organization thereby making the investment unprofitable and questionable.

HRIS may also be observed as a way, through software, for businesses big and small to take care of a number of activities including solutions in recruiting, training and payroll. Thus, Janet (2015) found that HRIS significantly leads to increases in efficiency when it comes to making decisions in HR and as a result enabling the HR practitioner. İlhami et al. (2016) also found that there is a positive relationship between HRIS, and Organizational Efficiency, Personal Performance and HRIS-oriented Personal Performance in the organizations. Further, Ceciliah and Samson (2021) found that HRIS significantly affect organizational efficiency that helps to produce the desired outcomes by using as minimal resources. Simsek and Celik (2015) stated that efficiency is termed as an organization's degree to achieve its goals, and is a determining criterion used to identify how much an organization comes closer to the identified goal by using at a certain extent and efficiency the inputs.

The Ethiopian Shipping and Logistics Services Enterprise (ESLSE) is a public enterprise and it is vested with the responsibility of rendering effective and efficient sea-transport and logistics services to the country's importers, exporters, and investors including also related services. The Enterprise's headquarter is in Addis Ababa and has five sectors, 18 departments, and eight local branch offices, one maritime and training facility locally, and one foreign branch in Djibouti. ESLSE is a public enterprise, established by Ministers of Council Regulation No. 255/2011 through merging the former three public enterprises; namely, Ethiopian Shipping Lines S.C, Maritime and Transit Services Enterprise and Dry Port Enterprise and also by transferring a truck operating company named Comet Transport S.C to ESLSE in 2004 (ESLSE, 21/22).

Organizational efficiency is a flexible structure which allows easy interaction and supports employees to establish relations with the institution and among themselves more easily and thus produce more productivity and work performance (Ceciliah and Samson 2021). The development of innovative technologies tools which facilitate establishment of networks beyond cultural and geographical boundaries has necessitated changes in organizational models and working methods that would bring about organizational efficiency (Simsek and Celik 2015). Thus, this study is intended to the effect of HRIS in organizational efficiency in ESLSE.

1.2. Statement of the Problem

As a result of the HRIS, HR staff also spends less time on administrative tasks and engage rather on strategic decisions on organizational strategy. Most significantly, HRIS can assist a

company achieve competitive advantage and this leads to overall organizational efficiency (Shibly 2011). This is because organizations are under the pressure of reducing cost of operations and the pressure of being responsive to the emerging performance demands. However, HRIS have been introduced to the African public organizations. It is also argued that even though HRIS have gained popularity as a strategy for competitive advantage, little information exists on its effect on performance of public organizations (Dottorato and Benfatto 2010).

The preliminary study in Ethiopia particularly in ESLSE has been adapted modern human resource-dedicated database management systems in 2017 (ESLSE 2021). Specialized applications, intended to supplement HRIS, is also essentially available in spite of the increasing functionality and affordability which allows for HRIS to be used extensively in the public service organizations of all sizes. However, little is known about HRIS information quality, the extent of user satisfaction, its usefulness and user competency as well as its effect on organizational efficiency.

Janet (2015) stated that even though a number of researches has been done to address the benefits in the introduction of HRIS, little investigation, instead, is available to measure the effects of HRIS on performance of public institutions. Shiri (2012) also confirmed that limited research is available on assessment to establish whether disparities exist or the effect of HRIS in general performance. Ceciliah and Samson (2021) agreed the existing HRIS system can optimally contribute to the performance of public organizations as to public firms fully utilize HRIS for recruiting, training, payroll and performance management. Thus, this study contemplated that there is need to investigate the entire information system to ascertain effect on organizational efficiency. This study is measure organizational efficiency by comparison of what is actually performed with what can be achieved with the same consumption of resources while HRIS is assed based on human resource (HR) management information quality, user satisfaction, usefulness and user competency.

1.3. Research Questions

- What is the effect of HRIS on organizational efficiency in ESLSE?

1.3.1. Specific Questions

- What is the effect of HRIS information quality on organizational efficiency in ESLSE?

- How does HRIS user satisfaction influence on organizational efficiency in ESLSE?
- What is the effect of HRIS usefulness on organizational efficiency in ESLSE?
- How does HRIS user competency influence organizational efficiency in ESLSE?

1.4. Objective of the Study

1.4.1. General Objective

The main objective of this study is to investigate the effect of HRIS on organizational efficiency in ESLSE.

1.4.2. Specific Objectives

- To investigate the HRIS information quality influence on organizational efficiency in ESLSE.
- To examine the effects of user satisfaction of HRIS on organizational efficiency in ESLSE.
- To identify the effects of usefulness of HRIS on organizational efficiency in ESLSE.
- To examine the effects of user competency of HRIS on organizational efficiency in ESLSE.

1.5. Significance of the Study

There has been general inattentiveness in the implementation of HRIS especially in the public organizations. This has reflected poorly on these institutions of higher learning in terms of economic growth and competitive advantage. This study is timely and is intended to explore the influence of HRIS on organizational efficiency. From previous research context, HRIS has been recently implemented and in its initial stages in African as well as Ethiopian public organizations. This shows that there is knowledge gap within research studies as to how HRIS could contribute to the performance of employees in government owned enterprise, ESLSE. Therefore ascertaining the level of influence of HRIS on organizational efficiency would be very important and would contribute to HR and the enterprise overall performance. Since this study is done for the first time in ESLSE, it will be useful in providing baseline information to improve the service provided. It will give opportunity for the management of ESLSE to find out and evaluate the current HRIS practice, and also to understand the strength and weakness of the system.

Further the research findings of this study will improve the process of data collection, analysis, storage, retrieval and dissemination as well as the efficiency of the organization. Application of findings would improve ESLSE operations through the creation of effective HRIS. It also enhances the human resource practices of the studied organization. Finally, this study helps to develop the interested parties (stakeholders) in the area of HRIS in the various sector and research institutions whereas considering the human resource issues.

1.6. Scope and Limitations of the Study

1.6.1. Scope of the Study

The study focused on the effect of HRIS on organizational efficiency in ESLSE. Thus, the study further is limited to four factors which is the independent variables that included information quality, the extent of user satisfaction, its usefulness and user competency as well as the dependent variable that is organizational efficiency. In addition, this study focuses on HRIS of ESLSE in Ethiopia, Addis Ababa head quarter from March to August, 2022. The selection of the study area is based on the researcher's accessibility to the data required. Moreover, Addis Ababa is chosen for this study due to the majority of the human resource involved employees are working at the head office and limited time as well as shortage fund, which restricted the researcher to collect data countrywide in order to achieve the study objective with convenience and cost justification.

The researcher is used sample of employees from the top management, middle level management and lower level management from the target department in providing the needed information. The researcher is used sample employees from all the levels of HRIS users to enable facts based decision. This study is applied causal research design to investigate the casual relationship between HRIS and organizational efficiency in ESLSE.

1.6.2. Limitation of the Study

The study has the following limitations. First, the existing literatures and journals could not really emphasize HRIS implementation, the role of HRIS and organizational effectiveness but mainly concentrated on human resource management, thus, there was a challenge to obtain access to literature in developing countries particularly in Ethiopia. Besides, some employee respondents had shown organizational and cultural biasness to the researcher after discovering study is intended only for academic purposes. Strong discussion had done

to convince respondents to provide complete and honest feedback, partly due to the rules in their departments and the institution at large.

In addition, the effect of HRIS on organizational efficiency is a broad topic based on people's perspective and the study was focused more on the most crucial element; it is also important to know that people have a lot to discuss regarding human resource management and its effect. To overcome these limitations the researcher had used multiple research instruments to get pertinent data from the targeted population and surveyed organization.

1.7. Definition of key terms

- **Human Resource Management** - is the policies, practices and systems that influence employee's behavior, attitude and performance (Dottorato & Benfatto 2010).
- **Organizational Efficiency** - is an indicator which measures how well an organization achieves its objectives (Shiri 2012).
- **A Human Resource Information System (HRIS)** - uses a systemic procedure for maintaining, collecting, storing, retrieving, and validating data needed by an organization regarding their human resources, personnel activities and organizational characteristics (Nikhil and Sanjana 2013).

1.8. Organization of the Study

The study is structured into five chapters. The first chapter of the introduction part consists of background of study, statement of the problem, objectives of the study, the research hypotheses, significance of study, and also the limitations and delimitations of the study. The second section reviews both the theoretical and empirical part of the materials and work related to the research. It explains the definition of human resources management and organizational performance. The research methodology of the study is discussed in chapter three. It explains area description of the study, research design, sampling techniques and method of data analysis. Chapter four, deals with data analysis, presentation and discussion. Finally in chapter five conclusion and recommendations are presented based on the study findings.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURES

This part of the study focuses on a literature review from surveys books, scholarly articles, and any other sources relevant to a HRIS and organizational performance (efficiency) issues and theories and empirical studies. It provides a description, summary, and critical evaluation of these works in relation to the research problem being under the study. Therefore, the literature review is considered to provide structure of this chapter in line with objectives, knowledge gaps and demonstrate evidence of the current research on HRIS and organizational performance through relevant and logical discussion. In this regard, this chapter reviews the literature related to HRIS and organizational performance, both theoretical and empirical by describing the relationship between HRIS and organizational efficiency.

2.1. Theoretical Literature Review

2.1.1. Concept and Definitions

2.1.1.1. Human Resource Management

Human resource management defines as a strategic and coherent approach to the management of organizations most valued assets the people working there whom individually and collectively contribute to the achievement of its objectives (Armstrong 2010). It is also mentioned as the management of work and people towards desired ends and he believes that HRM can be regarded as a ‘set of interrelated policies with an ideological and philosophical underpinning’. He suggests four aspects that constitute the meaningful version of HRM includes a particular constellation of beliefs and assumptions, a strategic thrust informing decisions about people management, the central involvement of line managers and reliance upon a set of ‘levers’ to shape the employment relationship. Human resources which are reflected as the greatest asset of an organization refer to people whose knowledge skills and abilities are well managed and used in an effective way. Among all the organization factors which contribute to organizational performance, the human resource are now regarded as the most fundamental factor (Asrat 2016).

HRM, in general, is a system of practices and sub-practices that seeks employees’ performance improvement in a way that individual, organizational and social goals

achieved. When the HR component is not made a vital part of a strategic planning process then to implement a strategic business plan is going to be a challenge to the organization. The strategic human resource management (SHRM) involves the making and carrying out of HR policies and practices which will bring about employee competences and the required behaviours needed by the company to meet its strategic aims. Consequently, the major concept of HRM system is the pulling together a bundle of some complementary HRM activities which in turn bring about an economic turnaround in an organization (Shiri 2012). The effectiveness of the human resource functions specifically recruitment and selection, training and development, payroll management and performance management is anticipated to be dependent on the application of HRIS and by presumption result in overall organizational effectiveness (Janet 2015).

2.1.1.2. Definition and Feature of HRIS

A Human Resource Information uses a systemic procedure for maintaining, collecting, storing, retrieving, and validating data needed by an organization regarding their human resources, personnel activities and organizational characteristics. It can be supposed that HRIS is the association between HRM activities and information technology (Nikhal and Sanjana 2013). Contemporary developments in technology have made it imaginable to create a real-time information based, self-service and interactive work environment. Personnel information systems have changed from the automated employee record keeping from the 1960s into more complex reporting and decision systems of late. Therefore, HRIS is the combination of software, hardware, support functions and system policies and procedures into an automated process articulated to harness the strategic and operational activities of the human resources department and executives in the organization (Chauhan *et al.*, 2011).

Information technologies, which offer enabling technologies to assist HR professionals in the delivery of services, have also concurrently augmented the expectations that employees, managers, customers, suppliers, and regulators have of the HR function (Shiri 2012). This is because of the HR function of organizations is changing promptly, responding to a changing social and organizational environment and rapidly evolving information technologies. Social and organizational changes exert pressure on HR professionals to provide expanded services of a higher quality, faster, and seamlessly linked with other corporate functions (Asafo-Adjei 2007).

Nikhal and Sanjana (2013) discussed that HRIS requirements are determined by the significance that the organization places on administrative efficiency, compliance and strategic direction. They continue to add that with a fully integrated system one is able to access a competency library, recruitment, performance management, remuneration planning and review, training, talent management and succession. This validates the full capabilities of a HRIS and the importance it has if it is used to its full potential. Obviously, HRIS has the potential to transform HR into a more efficient and strategic function by allowing HR to extend beyond basic administrative tasks to strategic applications (Asafo-Adjei 2007).

A global HRIS enables more accurate planning and more transparent decisions. Global HRIS transcends beyond the ability to analyse and use employee data as the system supports geographically diverse operations to share ideas and innovations and to create an ethos of cultural cohesion and closeness for employees. Whether local or global, HRIS has the potential to bring about improved planning and program development, decreased administrative and HR costs, accuracy of information and enhanced communication at all levels, thereby adding competitive value to the organization (Nikhal and Sanjana 2013).

Organizations, corporations and large, competitive, dynamic and multi-national industries are currently considering global HRIS implementation projects. There are abundant global HR systems available that can support HR processes from employee recruitment to termination (Chauhan et al. 2011) but global HRIS implementation projects face the challenges of differences and uniqueness in different countries and regions such as cultural differences and language barriers.

2.1.2. Theories Related to the Study

2.1.2.1. Technology Acceptance Model

Nikhal and Sanjana (2013) mentioned Davis (1989) who established the technology acceptance model (TAM) in studying the determinants of information technology (IT) usage for instance, use of IT in recruitment and selection. The goal of TAM was to provide an explanation of the determination of computer acceptance that is generally capable of explaining user behaviour across a broad range of end user computing technology user population while at the same time being both persuasive and theoretically justified. TAM can be seen as an adaptation of the generic Fishbein and Ajzeris theory of reasoned action and was developed to explain individual system used in the workplace to enhance service

delivery such as in recruitment and selection of staff in organizations. Besides, the main purpose of TAM is to provide a basis for discovering the effect of external variables on internal beliefs, attitudes, intentions and usage. As global business markets become increasingly competitive, firms look to information technology to manage and improve their performance. Timely and accurate information is a key to gaining performance efficiency. Yet, firms may invest in technology only to find that their users are not willing to accept and use the new technology. This chapter explores the technology acceptance model and other theories of user acceptance.

The main motive technology acceptance model was selected by this study is because technology acceptance model has been tested empirically and supported through validations, applications and replications. Technology acceptance model is one of the most powerful, robust and parsimonious model for predicting user acceptance especially in information systems (IS) (Saleem 2012). Accordingly, it is preferred to this study as a key subject due to the parsimony of TAM combined with its predictive power makes it easy to apply to different situations. These perceptions influence the way HRIS is used and hence mediate its effect on organization performance. Perceived usefulness and perceived ease of use including attitude towards using the technology were used to analyse the research questions of e –recruitment and e- training and to explain how e-recruitment and e – training packages enhance the ease of use and usefulness of the HRIS sub systems of e-recruitment, e-training, e-payroll and e-performance management by the employees to enhance public organizations' performance.

2.1.3. Effect of HRIS on Organizational Efficiency

In most organizations the full potential of the HRIS is not entirely utilized; this can be attributed to firms attaining automation of existing HR processes but failing to progress to a more advanced stage of an information culture HR departments provide broader and more effective services when they operate via a web portal and this can be viewed as making the organization more efficient. Landrum, et al. (2009) stated and briefly discussed that few organizations systematically attempt to measure the effectiveness of their information system, whilst HR managers are stressing the need to better understand the factors that contribute to the success of HRIS.

Batool, Sajid & Raza (2015) features the efficiency of HRIS to the system's ability to produce more effectively and faster outcomes than done on paper. They also cautions that

implementing an HRIS program may be perceived as being a compulsory step for an organization, but unless it will be an effective tool for HR functions, it will not lead to greater efficiency but may hinder it instead.

A HRIS is a response to achieve cost effectiveness, reduce administrative workload, standardize HR processes or simply add strategic value in the decision making of the organization. There is consensus among various practitioners that HRIS is a powerful tool to enhance the HR capability of an organization. Nikhal and Sanjana (2013) cited Sergio et al. (2010) who consider that an effective HRIS is imperative in today's organizations in order to cope with a number of issues such as increasing organizational demands, a more extensive use of and need for information, continuous pressures to reduce costs, as well as making HR a more strategic business partner. HRIS has become a key enabler to increase organizational performance and effectiveness and the purpose of HRIS has become more complete and complex in recent years.

Troshani, Jerram & Hill (2011) state that HRIS is presently supposed as one of the important factors influencing the role of the HR function and the adoption of HRIS is likely to promote HR to the anticipated position of strategic partner in the organization. Obviously, a new era made its debut as the HR function and its system support became strategic partners in managing change within an organization. Successful HRIS supports the planning and implementation of managerial key processes in the organization such as executive decision making, technology selection and organizational reporting structures. Therefore, the new HRIS system became an active tool to help employees engage more easily with the organization and each other thereby steering greater productivity and business execution (Nikhal and Sanjana 2013).

2.1.4. HRIS Information Quality

System quality is well defined as the characteristics of the information system as well as the processing of the system, the flexibility offered by the system, the amount of information or resources it accesses (Janet 2015). De Lone and McLean (2003) propose that an information system should be first and foremost generated, encompassing numerous important features, which can be considered as exhibiting various degrees of system and information quality.

Ilhami et al. (2016) stated that HRIS achievement which is empirical evidence was affected by HRIS satisfaction, and this satisfaction was also affected by perceived HRIS system

quality, perceived HRIS information quality, perceived HRIS user-friendliness and perceived HRIS practicality. Their study found that a high and significant relationship between perceived HRIS information quality and HRIS satisfaction. Their study also found that information quality is crucial for general Information System success. The results show that HRIS information quality renders HRIS more valuable to the users by providing up-to-date, complete, detailed and easily comprehensible information related with their works to help them in their decisions. Accordingly, the results indicate the potentials and competencies of the information systems and show that they play an undeniable role, and employees provide the desired approval to keep up with the technological developments.

- ***H₁***: HR Information quality has a significant influence on organizational efficiency in ESLSE

2.1.5. User Satisfaction

To produce treasured output for computer users, the HRIS have to process that output, make the indispensable calculations, and then format the arrangement in a way that could be understood. Though, the annotation of thoughtfulness is that, whereas it is simple to think of HR information systems in terms of the hardware and software packages used to implement them and to measure them by the number of workstations, applications or users who log onto the system, the furthestmost significant elements of HRIS are not the computers, rather, the information. The bottommost line of any wide-ranging HRIS has to be the information validity, reliability and utility first and the automation of the process second (Obeidat 2012).

HRIS meet the needs of a number of organizational stakeholders. Characteristically, the people in the firm who interact with the HRIS are segmented into three groups including HR specialists, managers in functional areas and employees. HR professionals depend on the HRIS in fulfilling job functions. Therefore, for the HR specialized personnel there is an increasing reliance on the HRIS to fulfil even the most elementary job tasks. As human capital plays a larger role in competitive advantage, functional managers expect the HRIS to provide functionality to meet the unit's goals and objectives. Furthermore, executives depend on the HRIS's competences to provide superior data collection and analysis, especially for performance appraisal and performance management (Ntoetia 2012).

- ***H₂***: HRIS user satisfaction has influence on organizational efficiency in Ethiopian Shipping and Logistics Service in Ethiopia

2.1.6. Usefulness

Organizations sometimes realize the cost reductions and efficiency gains early in the implementation of an HRIS system, so they provide compelling evidence needed to get a project up and running. The payback period or the time it takes to recoup the investment may be as short as one to three years (Asafo-Adjei 2007). HRIS can prevent costly benefits error thus saving organizations on costs otherwise incurred. Moreover, the HRIS will enable the organization to decrease costs over the automation of formerly labour intensive activities, can be used to maintain and facilitate communication up and down the organization and can be an instrument for greater efficiency (Wiblen, Grant & Dery 2010).

- **H₃:** HRIS usefulness has influence on organizational efficiency in Ethiopian Shipping and Logistics Service in Ethiopia firm.

2.1.7. User Competency

The strategic part that learning functions show within organizations nowadays demands that performance management, learning management and other strategic components of human capital management become integrated and work together as a seamless process. Several organizations feel that they have an integrated process today, but whatever they essentially have is an interface; a point at which independent systems interact. Organizations understand the need to bring the two important processes of performance and learning together. The question is how to achieve and complete this resourcefulness (Averbrook 2012). Janet (2015) also indicated that there is requirement for HR to proactively encirclement Technology to provoke responses and fulfilled changing expectations within organizations. It also included that a lot of efforts have been carried an independent software evaluation of the new system and the overall usability of the system in various sectors and encouraged frequent monitoring and evaluation for HRIS to serve its intended purpose.

- **H₄:** HRIS user competency has influence on organizational efficiency in ESLSE.

2.2. Empirical Related Literatures

The implementation of a proper HRIS has the potential to bring about operational effectiveness and enhance the realisation of the HR and corporate strategy, thereby ensuring organizational effectiveness. Therefore, Nikhal and Sanjana (2013) assessed the extent to which the HRIS enhances organizational efficiency in an interrelated and holistic manner (as determined by its effect on areas of HR, time management, cost management and

managerial satisfaction with the system). A sample of 101 managers was drawn in South Africa using cluster sampling. Data was collected using a self-developed, closed-ended questionnaire comprising of 28 items, the psychometric properties (validity, reliability) of which was statistically assessed using Factor Analysis and Cronbach's Coefficient Alpha respectively. The results indicate that HRIS significantly enhances overall organizational efficiency and its sub-dimensions (HR functions, time management, cost management and managerial satisfaction with the system) in an inter-related and holistic manner, though in varying degrees.

Janet (2015) evaluated the levels of systems manipulation of human resource functions like recruitment and selection, training and development, payroll and performance management to determine the underlying assumption of this research study, which is to develop an awareness of the implications of influence of HRIS on the performance of Kenyan public universities. This study used a descriptive survey method, which employed both qualitative and quantitative approaches. The results of the research give valuable insights about the success and effectiveness of HRIS in organizations. The findings of the study are discussed in the context of the theoretical and empirical background of HRIS applications on HRM functions. The findings indicate that HRIS application on recruitment and selection, training and development, payroll and performance management cumulatively provide quality, accurate and consistent data that enables effective and efficient decision making for organizational competitive advantage, while lack of financial support and poor computer competency impede the effective application of HRIS. The results further confirm that HRIS reduces operational cost compared to manual systems as it helps to maintain data with more accuracy and in less time. Based on the findings of this study, it is concluded that applying an effective HRIS can be an assurance for HR to stay competitive in its bid to deliver more effective and streamlined services that can influence the performance of public universities.

Asafo-Adjei (2007) investigated what role if any do HRIS (HRIS) play in SHRM. It attempts to examine how HR professionals and managers in different organizations see the effects of HRIS on strategic HR tasks and job roles. It also tries to find out if there is any significant difference in the usage of HRIS between Small/Medium (SME) size and Large size companies. A survey questionnaire was sent to 170 companies and a response rate of 15.9% was received. The results of the survey reveal that HR professionals not only consider HRIS usage as a support for strategic HR tasks but also perceive it as an enabling

technology. The study also indicates that large sized firms are most likely to experience considerable HRIS usage in support of strategic HR tasks. Moreover, there was no significant difference in proportion to the size of a company regarding HRIS usage in support of commitment management and managing trade union relations with organizations.

Ebenezer and Evans (2012) assessed to identify specifically, how the use of HRIS (HRIS) contributes to the effectiveness of strategic human resources management and to examine the strategic importance of using HRIS at the workplace. Relevant review of various HRIS literature were undertaken which culminated into the development of a conceptual model and the formulation of hypotheses to test the proposal that there is relationship between independent variables- HRIS- and the dependent variables- Cost and Time Savings, Decision Making Contribution, Quality Information Effects and Employment Development Commitment.

The research uses data generated from 34 respondents from insurance companies in Ghana. Data was analysed using SPSS software. It has been found that HRIS adoption and use have a strong and positive effect on Cost and Time Savings and Decision Making Contribution. Essentially, organizations that divert concerted efforts towards HRIS adoption and use have a high likelihood of cutting down cost and saving time, and also ensure better contributions to strategic decision making. Financial and resource appraisal in relation to the ability to start and sustain HRIS use are critical. HRIS enables HR professionals and supervisors to manage complex information entities and to plan HR efficiently also, organisations that intend using HRIS should thoroughly educate its employees- not only HR staff- so that internal awareness can facilitate the acceptance of the system.

Udomphol and Siengthai (2016) evaluated the Impact of HRIS on Organizational Effectiveness in Textile Industry in Thailand. The purpose of the exploratory study was thus to investigate the impact of HRIS on organizational effectiveness. The textile industry in Thailand was taken as a context of the study as it faces many challenges in this globalization era. One of the industry's dilemmas was about worker conditions and the scarcity of workforce. A questionnaire survey was conducted during December 2012-March 2013. About 354 questionnaires were mailed to the random sample drawn from the Textile Directory. A total of 63 usable returned questionnaires were obtained. Descriptive statistics were used to analyse the obtained data. The findings reveal that the sample respondents perceived that HRIS has a positive impact on organizational effectiveness with respect to

human resource processes, time savings, cost savings, information effects, decision making and strategic impact of HR role. And the research found that the human resource information system has potential benefits to improve organizational performance.

Al-Tarawneh and Tarawneh (2011) has conducted a survey in Jordanian Firms where they had assessed The Effect of Applying Human Resources Information System in Corporate Performance in the Banking Sector.

The study was aimed to demonstrate the impact of the effectiveness of the Application of human Resources Management System in Corporate Performance which perspective of workers in the Banking Sector in Jordanian Firm, and to achieve the purpose of the study questionnaire was developed to measure the impact of the effectiveness of the Application of human Resources Management System. The study was revealed that there were a significant effect between the quality of the output of human resources information system and institutional performance in banking sector in the Jordanian firm; There was a statistically significant effect between motives and corporate performance in the banking sector in the Jordanian firm; There was a significant effect between training and organizational performance in the banking sector in the Jordanian firm.

The study was presented a set of recommendations, including: activating the role of human resources information system, where still the information system performs the function of traditional supply the decision maker authorized one to read the outputs historical information when they want, either directly or after completing a series of routine procedures that enable it, without that, this applies to access information system to avoid problems that many occur later.

In another similar study conducted identify effect of human resource information systems on efficiency of information management on employees' performance at Murang'a water in Kenya. The main purpose of the study was to establish the effect HRIS on employee's performance in Murang'a Water Companies. The study adopted descriptive design to determine the effects of human resource information system on employee's performance.. Data for the study was primary obtained by use of a survey tool. It was collected using a questionnaire. The filled questionnaires were checked for completeness and then coded and the data analysed.

The findings of the study established that human resource information system was used in the selected Water Companies in Murang'a County; the institutions have adopted HRIS in their operation; the impact on adoption and implementation of HRIS involved the regulatory as an environmental impact on adoption and implementation of human resource information system and an effective HRIS provides information on just about anything the companies needs to track and analyse about employees,

The study made recommendations that a functional Human Resource Information System should be adopted by Water Companies/Other Organizations in order get improved productivity and efficiency on employee's performance. The organization should update their Human resource information systems to ensure that they using the newest version of technology in the market which save more time and increases efficiency. The organization should continue training the employees on the use of the Human resource systems as the need arises. The organizations should automate all other functions and also provide back up to prevent loss of data. Nthiga and Nyang'au, 2021.

2.3. Summary and Research Gap

With the advent of the twenty-first century came the ever increasing effect of globalization and technology. There is, therefore, a tremendous surge in the implementation of new technology and organizations have amplified the use of information systems in various functions and departments for organizational competitive advantage and success. Even though HRIS propels this technology rush, little information exists on HRIS in public organizations and hence forms the focus of this study.

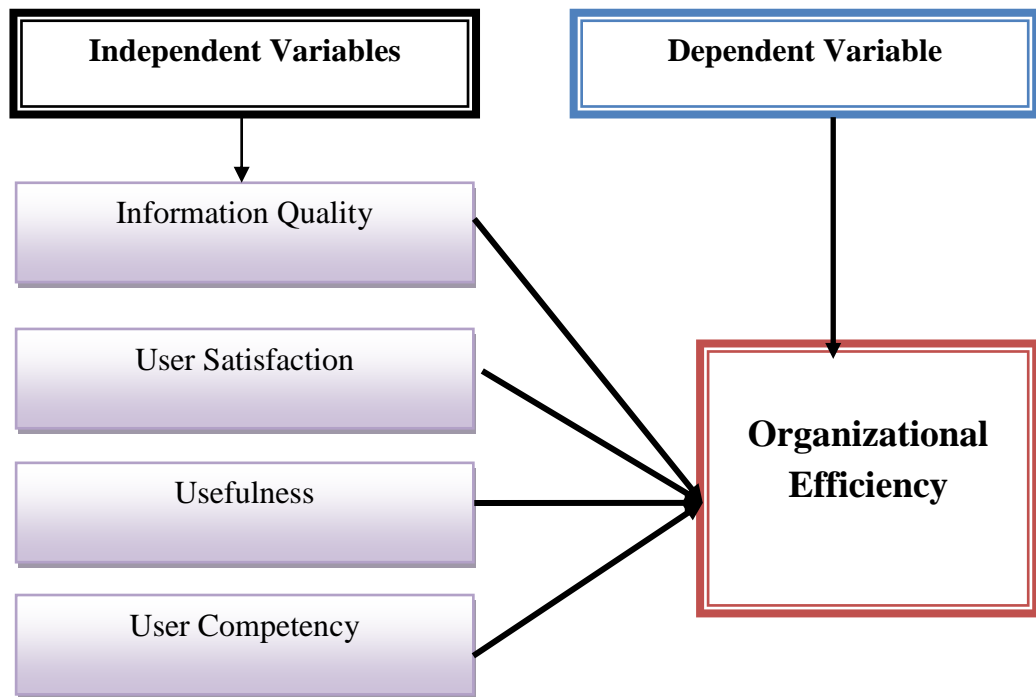
Basically, information technology is anticipated to drive Human Resource (HR)'s transition from a focus on HRM to Strategic Human Resource Management (SHRM). This strategic role not only adds a valuable dimension to the HR function, but also changes the competencies that define HR professional and practitioner success. It is further found that HRIS functions enhance HRM in terms of administrative and analytical purposes. It is, therefore, recommended that a continuous assessment on the influence of HRIS, especially e-performance management on overall performance is necessary if the public universities are to maintain the competitive advantage resulting from HRIS. To get a clear understanding

of the influence of HRIS on the performance, this study sought to the effect of HRIS on organizational efficiency.

İlhami *et al.* (2016) argued factors such as growing significance of information and information management systems used to process such information, and its spreading usage in Human Resources Management and increasing efficiency of human resources management information in strategic management processes; and focuses on their effects on management understanding and human resources management process in big data age. Survey method was used in the course of the research as a data collection method. The analyses conducted using correlation and regression test models showed that the Human Resources Management processes in businesses carried out through information systems contribute positively to organizational efficiency and hence to employee performance.

The research shows that there is a positive relationship between HRIS Usage Rate, and Organizational Efficiency, Personal Performance and HRIS-oriented Personal Performance in the organizations. A positive relationship exists between Organizational Efficiency, and Personal Performance and HRIS-oriented Personal Performance. Organizational Efficiency being constant, there is no relationship between HRIS Usage Rate, and Personal Performance and HRIS-oriented Personal Performance. Organizational Efficiency being constant, there is a positive relationship between Personal Performance and HRIS-oriented Personal Performance.

2.4. Conceptual Frame Work of the Research



*Figure 1 Conceptual Framework
Modified from Janet (2015) and Ilhami et al. (2016)*

Janet (2015) depicted how HRIS influences dependent variable, public organization performance, as measured through independent variables, recruitment and selection; training and development; payroll management and performance management. The variables which emanate from the specific objectives, research questions and hypotheses to be tested are clearly articulated in this conceptual framework. Ilhami et al. (2016) exhibited that these systems have varying effects on HR across organizations but offers little explanation about the variety.

They suggested that HRIS is prevailingly used to automatize the routine tasks and replace file cabinets and HRIS is increasingly used in strategic decision-making process of the HR. So far, the level of strategic HRIS use across organizations varies, and most of the organizations merely continue to use HRIS to remove manually-managed processes and to cut down on costs.

Therefore, the study further is limited to four factors which are the independent variables that included information quality, the extent of user Satisfaction, its usefulness and user competency as well as the dependent variable that is on organizational efficiency.

CHAPTER THREE

3. RESEARCH METHODOLOGY

This chapter presents the methodology that is effectively applied in the study. It designates the research approach, research design, the population of the study, sampling techniques, sampling procedures, sample size, data collection methods, data collection procedures data analysis and reliability and validity.

3.1. Area of the Study

The study is conducted at ESLSE. It is situated in Kirkos sub city of Addis Ababa, Ethiopia. ESLSE is a state owned enterprise that was formed by amalgamation of three companies namely: Ethiopian Shipping Lines, Ethiopian Maritime Transit Services and Dry Port Service Enterprise. It is the sole multimodal freight transport operator in international trade in the country. The study is restricted to Ethiopian Shipping and Logistics Service Enterprise main office in Addis Ababa where it is located.

3.2. Research Approach

Qualitative method focuses on distinction or attributes than amount. In qualitative method, data is presented in the form of quotations, or descriptions of the phenomenon. One of the most common techniques of data gathering applied in qualitative method is unstructured interview. On the other hand, quantitative method focuses on information that is numerical, and it is confirmatory in nature. Qualitative method isolates variables to explain causal relation between them and determines the magnitude and frequency of the relationships. Common techniques applied in quantitative method are surveying with questionnaires or Structured Interview. On other hand, mixed methods involved the collection and analysis of qualitative and quantitative information in a single study (Croswell 2009).

Thus, this study enables to understand a problem more comprehensively to HRIS practices and organizational performance (efficiency) in human resource sector. Accordingly, the study is used mixed methods and gives opportunity to build knowledge

on practical grounds and bases the research on the techniques that can best address the problems and questionnaires at hand. While conducting this research, deductive approach is used. Deductive approach indicates that a conclusion is drawn from true statements and the observation of fact statements. Deductive approach is chosen because the study starts from literature overview which is again compared with empirical findings and also the purpose of this study is not to produce any new theories but to give efficient solutions for HRIS practices in HR service sector. Both qualitative and quantitative research approaches are employed in this study to get a better understanding of the research issue.

3.3. Research Design

The research population is examined and after careful analysis, the employees who are involved in HRIS in ESLSE Head office are used as a sample size. Primary data is collected from the surveyed best logistics organization through a well-designed questionnaire. Besides, this study is described and interprets HRIS management and its role in organizational efficiency in service sector. It is look at its respondents to describe, compare, contrast, classify, analyse and interpret their opinion about HRIS, HRIS implementation and practices, its system and associated factors. Overall, it aims to describe the state of affairs as it exists. In addition, this study establishes the cause and effect relationship between HRIS on organizational efficiency in logistics firm. The researcher is use data from respondents from questionnaire to analyse and make a critical evaluation of the data or information.

3.4. Population and Sampling

3.4.1. Target Population

A population is the totality of any group of units which have one or more characteristics in common that are of interest to the research. Total number of target population contained 120 HRIS users of the surveyed logistics firm, ESLSE.

3.4.2. Sample Frame

The sample frame of the study which is the list of the employees or respondents are found from payroll or the monthly salary list of the employees for April, 2022.

3.4.3. Sample Size

Sample size refers to a number of items to be selected from the universe to constitute a sample. Sampling is referred to as the process of selecting units from a population of interest so that by studying the sample a researcher may fairly generalize her results back to the population from which they are chosen (Kothari 2006). With the intention of select the sample of this research of respondent, employees are calculated by using (Yamane 1973) formula with 95% confidence level. The calculation is presented as below. Sample size for $\pm 5\%$ precision levels Where Confidence Level is 95% and $P=.5$. For 120 size of population, the sample Size (n) for precision (e) of 5% will be 92. The formula is presented below:

$$n = \frac{N}{1 + N(e)^2}$$
$$n = \frac{120}{1 + 120(0.05)^2}$$
$$= 92$$

Where

- n = number of sample size and N = Total number of study population e= level of confidence to have in the data or degree of freedom which is 95% apply for this study with 5% error. Consequently, sample size of the study will be 92 respondents in Addis Ababa.

3.4.4. Sampling Techniques

This study is applying probability sampling that involved simple random sampling. Simple random sampling is used to select employees from the surveyed organization. Sampling is done due to constraints of time, money and accessibility of data to the entire population. The aim of using simple random sampling is to make sure that each staff has equal chance of been chosen. Furthermore, the researcher is employ purposive sampling. Purposive sampling is used to select three top management officers who are among the top management for the aim of getting reliable information about effects of HRIS on organizational efficiency. These respondents will be selected purposively because they hold specific positions in the organization and as such could have reliable information on effects of HR practices.

3.5. Methods of Data Collection

Data collection refers to systematic focused and orderly collection of data for the purpose of obtaining information to solve research problems. Both primary and secondary data collection methods are used in this study in order to counterbalance shortcomings from each technique. The decision to use multiple methods in collecting data (triangulation) ensured validity of data as one method complement each other.

3.5.1. Primary Data

This is the original source of data, in which the researcher collects the data for the first time, and as such, the data collected are known as primary data. Primary sources of data are collected from questionnaire and interview constitutes the information a researcher obtains from the field that is data collected from the subjects in the sample.

3.5.2. Secondary Data

In this study, secondary sources of data involved the use of published and unpublished documents obtained from libraries, offices and the Internet. Such documentary materials include published books, reports, thesis and dissertations. The secondary data provides the researcher with more insights on the problem being studied by cross-validating and augmenting evidence obtained from interviews and questionnaires. In this study researcher is collect secondary data from files and HRM reports (2021).

3.6. Research Instruments

3.6.1 Interview

In-depth interview was the other data gathering in this study. According to Kothari (2006), an interview is a set of questions administered through oral or verbal communication between the researcher and the interviewee. In this study, semi structured interview was employed to collect data from three top management. Interview schedule was prepared and questions were asked to each participant.

3.6.2 Questionnaire

Questionnaire is a set of questions, which are usually sent to selected respondents to answer at their own convenient time and return back the filled questionnaire to the researcher (Kothari 2006). Questionnaires are distributed to respondents including principals, head of departments and subordinates who will fill them under the administration of the researcher. This study is employ questionnaire that adapted and modified from Elnakib et.al (2012) and

Siengthai & Udomphol (2016). In this study the questionnaire was organized into two broad sections. The first part is some demographic and general questions. The rest questionnaires were about the study dependent and independent variables. It has open ended questions, close ended questions and five point likert scale questions that range 1 to 5 (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree) to indicate respondents level of agreement.

3.6.3 Documentation

The documentation method enabled a researcher to obtain the readily available data and information by going through various documents on the topic in question. The study is also review study reports, booklets and brochures issued by the organization. The reason for using documentary research in this study is that documents are enable the researcher to track various types of information from documents, records, and publications within a short time and with less cost.

3.7. Variables and Measurement Procedures

In the course of the study, the researcher is collect quantitative data, supported partly by qualitative data using both secondary and primary sources of data. Quantitative data is collected especially on social demographic characteristic of respondents including gender, age, education level, and other quantitative information. Qualitative data is obtained from the respondents through interview whereby quantitative data is obtained through self-administered questionnaires. On the other hand, secondary information is obtained through reviewing of published materials on the subject of the study. Documents including staff's attendance record, published reports on the surveyed organization, academic and newspaper articles on the subject of the study are explored for secondary data collection.

- The biographical data in part one is collected using a nominal scale with pre-coded option categories
- The items in part two is measured using a 5-point Likert scale ranging from strongly disagree (1),disagree (2), neither agree/not disagree (3), agree (4) to strongly agree (5).

3.8. Validity and Reliability of Research Instruments

3.8.1. Validity of the Instruments

Validity aimed at whether the tools are truly measuring what they intended to measure (Kothari 2007). Pilot study is done to test whether the tools truly measure

what they intended to measure (Kothari 2007). Validity of the tool is verified by piloting the questionnaires before a comprehensive exercise of data collection to see if the tool can measure what it is supposed to measure from different respondents such as experts in HRIS and organization performance, academicians and logistics firm leadership experts.

3.8.2. Pilot Test

Pilot testing is also carried out using 12 employees and managers, selected using the same procedures and protocols adopted for the larger sample. The pilot test result some changes in the questionnaire. The process of pretesting carried out over half a month's time. All the way through the discovered error like problem with wording, ambiguous questions and skipped questions were adjusted and the data collections tools were made accordingly. Finally the feedback from the pilot testing is confirmed that the questionnaire is appropriate in terms of relevance and construction.

3.8.3. Reliability of the Instruments

Reliability is the extent to which a test or procedure of data collection yields similar results under constant conditions on all occasions (Kothari, 2006). That is, if we repeated to assess the effects of HRIS on the organizational performance normally a person gets the same answer each time? According to Crobach (1951) there are several devices for checking reliability in scales and tests such as test and re- test, alternative forms methods or split half method. The reliability of this study's instruments is ascertained by using Cronbach's Alpha test. As per the researcher pilot test result the alpha coefficient for the 12 items was 0.849, suggesting that the items have relatively high internal consistency. (reliability coefficient of 0.70 or higher is considered" acceptable" in most social science research situations.)

3.9. Data Processing and Analysis

Data analysis refers to the process of examining what has been collected in survey or experience and making deduction. In this study, data is using descriptive analysis, tabular form, frequencies and percentages. The researcher is use statistical packages for Social Science (SPSS) version 20 for the analysis of Quantitative data. Data is sorted, coded and entered into the SPSS software. After data entry, the researcher is able to present that in descriptive statistics including frequencies, mean, and percentages and making cross tabulations of variables to check the relationships. In addition, this study is

use chi square to test if there are difference of HR practices among employees by demographic factors including age, sex, income and job type (professional and support). Further, it is also use inferential statistics such as correlation and multiple regression analysis.

Model specification

The multiple linear regression model of the study is based on the theoretical regression model as indicated follows

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + e$$

Where:

Y= Organizational Efficiency

a= the y intercept.

- x_1 - Information Quality
- b_1 = the regression coefficient of Information Quality
- x_2 – User Satisfaction
- b_2 = the regression coefficient of User Satisfaction
- x_3 – Usefulness
- b_3 = the regression coefficient of Usefulness
- x_4 = User Competency
- b_4 = the regression coefficient of User Competency
- e= error term.

3.10. Ethical Issues Considered

The ethical consideration is observed in getting informed consent from the effects of HRIS on the organizational performance in Addis Ababa. Information obtained is held in strict confidentiality by the researcher. All assistance and collaboration is acknowledged properly and ethically. In addition, all the collected data through the questionnaires and interviews are employed only for this particular research project and is not used in any other contexts or other research purposes. Also, it is humbled to cultural and belief of respondents. There is no bias, exposing leaking, hyperbolizing and understatement of the information from the respondents. The information regarding the purpose and procedure of the study is provided through both verbal means when personally meeting each of the participants as well as through a written form that is included with the questionnaires. The aim of the study was

clearly explained by the researcher that the respondents fill the questionnaire with full consent. And also inform to the respondent that the identity of the respondent kept confidentially and the result of the study is only used for academic purpose. The data collected from the respondents are used without distort. Information taken from different books and scholars articles are indicated on reference.

3.11. Operational Definition

This study is use and modified previously validated measures from prior research for the research variables with multiple items based on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The operational definitions of all the constructs and the sources of measurements are presented in the below table.

Table 1 Operational Definitions

Construct	Operational Definition	Source	Variable
Information Quality	Staffs' get accurate, relevant, and complete information when they use it including it holds favourite design, appropriate HR communications.	Ilhami et al. 2016	independent Variable
User satisfaction	The degree to which user perceive the effective relevance of HRIS content and perceive the cognitive relevance of HRIS		independent Variable
Usefulness	Staff's' understanding, realized as a valuable resource by the users, meet HR expectation and need.		independent Variable
User Competency	The degree of staffs' independently operates HRIS.		independent Variable
Organizational Efficiency	Efficiency is the ability to avoid wasting materials, energy, efforts, money, and time in doing something or in producing a desired result. In a more general sense, it is the ability to do things well, successfully, and without waste.	Ilhami et al. 2016	Dependent Variable

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION

This chapter demonstrates the results and interpretation of the collected data from the selected sample of HRIS user at ESLSE. The analysis part have two part the first section express the demographic characteristics of respondents and the second section discusses the studied independent and dependent variables analysis and interpretation of data that were collected through questionnaires and interviews.

Descriptive and inferential analyses were conducted using SPSS version 20. In this study, 92 self-administered questionnaires were distributed to the selected sample of HRIS user at ESLSE and 86 were collected. Six questioners were rejected because they were incomplete or not properly filled. Hence the final analysis was based on the 86 (93.48%) complete questionnaires.

4.1. Demographic information of the respondents

The demographic data of the sample HRIS user of ESLSE (sex, marital status, age, education status experience and time in current position) are described as follows.

Table 2 Demographic Data presentation

Variable	Frequency	Percent	
Respondents Gender	Male	39	45.3
	Female	47	54.7
	Total	86	100.0
Respondent Age	<30	19	22.1
	31-40	20	23.3
	41-50	25	29.1
	51-60	20	23.3
	>60	2	2.3
	Total	86	100.0
Marital Status	Single	25	29.1
	Married	52	60.5
	Divorced	6	7.0
	Widowed	3	3.5
	Total	86	100.0
Job Position	Encoder	9	10.5
	Officer Assistance	31	36.0

	Senior Officer	42	48.8
	Section Head	3	3.5
	Other please specify	1	1.2
	Total	86	100.0
Level of Education	Diploma/Level	9	10.5
	Degree	60	69.8
	MSC/MA	17	19.8
	Total	86	100.0
Respondents Experience	<5	10	11.6
	5-10	23	26.7
	11-15	15	17.4
	16-20	31	36.0
	>20	7	8.1
	Total	86	100.0

Source: own survey

The sex of the respondents indicates that 39 (45.3%) were males and the remaining 47 (54.7%) were females. The number of males and females in the sample are almost approximately similar to the actual figure of the ESLSE employee.

Regarding the age of the respondent, the majority of age group in this study as reported by the respondents are 25 employees between 41-50 years old (25%), the age between 31-40 and 51-60 are the second largest number which are 20 employees (36.6%) each, 19 employees (22.1%) are between 21-30, the last 2 (2.3%) employees are over 61 years old.

Concerning to the marital status of the respondent more than half of them 52 (60.5%) are married, 25 respondents (29.1%) are single, 6 (7%) are divorced and 3 (3.5%) are widowed.

In respect to the job positions of the respondents the majority 42 (48.8%) were senior officer, 31(36%) were Office assistance, 9 (10.5%) were encoder whereas the rest 3 (3.5%) were section heads.

With respect to qualification, 60 (69.8%) of the respondents had first degree while 17 (19.8%) hold second degree, 9 (10.5%) had diploma/level. Concerning to respondents work experience the majority , 31 (36%) respondent had more than 16 years of experience and only 10 (11.6%) had less than 5 years of work experience.

4.2. Descriptive Statistics

4.2.1. Information Quality

Concerning to information quality the respondents were asked seven different questions. As the detail is depict on table 3. The overall information quality mean value and standard deviation of responds were 3.81 and 0.840 respectively. This revealed that majority of the respondents' agreement on the information quality.

As per the results of the study 74.4% (64) of the respondents showed their agreement on getting accurate information from HRIS. Moreover the majority of the respondents 84.9% (73) believe that the information is very accessible using HRIS. So this indicates that the users can access information easily for their task.

Table 3 Information Quality

10	Item	N=86	Frequency	Percent	Mean	Standard deviation
1	I get accurate information when I use HRIS.	SDA	1	1.2	3.93	0.892
		DA	5	5.8		
		N	16	18.6		
		A	41	47.7		
		SA	23	26.7		
2	I get relevant information when I use HRIS	SDA	2	2.3	3.84	0.879
		DA	3	3.5		
		N	20	23.3		
		A	43	50.0		
		SA	18	20.9		
3	I get complete information when I use HRIS	SDA	1	1.2	3.55	0.835
		DA	8	9.3		
		N	28	32.6		
		A	41	47.7		
		SA	8	9.3		
4	I get up-to-date information when I use HRIS	SDA			3.69	0.756
		DA	4	4.7		
		N	30	34.9		
		A	41	47.7		
		SA	11	12.8		
5	HRIS returns answer to request quickly	SDA	1	1.2	3.87	0.809
		DA	3	3.5		
		N	19	22.1		
		A	46	53.5		
		SA	17	19.8		

6	HRIS makes information very accessible	SDA			4.20	0.683
		DA				
		N	13	15.1		
		A	43	50.0		
		SA	30	34.9		
7	I get from HRIS the information I need	SDA	6	7.0	3.64	1.028
		DA	5	5.8		
		N	15	17.4		
		A	48	55.8		
		SA	12	14.0		
Overall information quality					3.81	0.840

Source: own survey

4.2.2. User Satisfaction

Regarding to the second independent variable, user satisfaction, the respondents' were asked six different liker questions and detailed is presented on table 4. The result showed that the mean value and standard deviation of 3.39 and 1.026 respectively. The result indicated that there should be an improvement to some extent in user satisfaction.

Regarding the expectation about the HRIS 65(75.7%) of the respondents were either neutral or disagreement position this result indicated that for some extent as there is a gap between user expectation and the HRIS. The mean value for the questions 'Users has understanding about HRIS' and 'HRIS is seen as a valuable resource by the users' is 3.34 and 3.37 respectively. The results of the responses do not show a complete level of agreement as it is depicted in the table 4.

Table 4 User Satisfaction

No	Item	N=86	Frequency	Percent	Mean	Standard deviation
1	The HRIS meets the HR requirements of your area of responsibility.	SDA			3.37	0.946
		DA	20	23.3		
		N	22	25.6		
		A	36	41.9		
		SA	8	9.3		
2	The HRIS has met my expectations.	SDA	3	3.5	3.29	1.061
		DA	18	20.9		
		N	28	32.6		
		A	25	29.1		

		SA	12	14.0		
3	Users have understanding about HRIS.	SDA			3.34	0.978
		DA	21	24.4		
		N	25	29.1		
		A	30	34.9		
		SA	10	11.6		
4	HRIS is seen as a valuable resource by the users.	SDA	2	2.3	3.37	1.052
		DA	19	22.1		
		N	22	25.6		
		A	31	36.0		
		SA	12	14.0		
5	There is user participation in HRIS development activities	SDA	1	1.2	3.52	1.060
		DA	20	23.3		
		N	12	14.0		
		A	39	45.3		
		SA	14	16.3		
6	HRIS system is relevant for me. S	SDA	1	1.2	3.50	1.060
		DA	20	23.3		
		N	14	16.3		
		A	37	43.0		
		SA	14	16.3		
	Overall user satisfaction				3.39	1.026

r

ce: own survey

4.2.3. Usefulness

The independent variable, usefulness, similarly to other independent variables the majority of the respondents showed their agreement. The result showed that the mean value and standard deviation of 3.86 and 0.779 respectively. The result indicated the respondent's agreement on the usefulness of the system. The detail of the result of the result is presented on table 5.

The overall mean score and the standard deviation of user satisfaction are 3.86 and 0.779 respectively. The outcomes expressed that the respondents show their agreement about the usefulness of the system. More than 80% of the respondents believe that HRIS gives fast service transaction and enables worker's requirement more quickly.

Table 5 Usefulness

No	Item	N=86	frequency	percent	Mean	Standard deviation
1	I get much benefit from HRIS system.	SDA			3.81	0.695
		DA	2	2.3		
		N	24	27.9		
		A	48	55.8		
		SA	12	14.0		
2	HRIS is helpful for my personal and business needs.	SDA	3	3.5	3.70	0.855
		DA				
		N	30	34.9		
		A	40	46.5		
		SA	13	15.1		
3	HRIS is convenient for met HR needs.	SDA			3.76	0.811
		DA	3	3.5		
		N	32	37.2		
		A	34	39.5		
		SA	17	19.8		
4	HRIS is helpful to address the problems related to HR functions.	SDA	2	2.3	3.76	0.853
		DA	1	1.2		
		N	29	33.7		
		A	38	44.2		
		SA	16	18.6		
5	I get fast HRIS service transactions using our enterprise system	SDA	1	1.2	4.01	0.759
		DA	2	2.3		
		N	12	14.0		
		A	51	59.3		
		SA	20	23.3		
6	Using HRIS enables to perform work's requirements more quickly.	SDA	1	1.2	4.01	0.790
		DA	2	2.3		
		N	14	16.3		
		A	47	54.7		
		SA	22	25.6		
7	Using HRIS improved my job performance and enhanced my effectiveness.	SDA			3.97	0.694
		DA	3	3.5		
		N	13	15.1		
		A	54	62.8		
		SA	16	18.6		
	Overall USEFULNESS				3.86	0.779

Source: own survey

4.2.4. User Competency

The last but not the least independent variable of this study was user competency which consisted of six liker questions. As the result is presented on table 6 the overall result of user competency mean score is 3.18. This result revealed that the respondents showed their agreement around the neutral position, so it needs some adjustment for improvement.

As it is showed on the result 50% of the respondents replied as they can't easily operate the HRIS without support and 54.7% the respondents expressed they can't fix any failure without support. This result indicated that as there is a skill gap for using HRIS efficiently.

Table 6 User Competency

No	Item	N=86	frequency	percent	Mean	Standard deviation
1	I can easily operate the HRIS system without support.	SDA	8	9.3	3.19	1.183
		DA	20	23.3		
		N	15	17.4		
		A	34	39.5		
		SA	9	10.5		
2	I can fix any HRIS failures without support.	SDA	9	10.5	3.14	1.209
		DA	19	22.1		
		N	20	23.3		
		A	27	31.4		
		SA	11	12.8		
3	I am quite certain what to expect from HRIS system.	SDA	8	9.3	3.19	1.163
		DA	18	20.9		
		N	19	22.1		
		A	32	37.2		
		SA	9	10.5		
4	I can easily understand HRIS functions	SDA	8	9.3	3.16	1.187
		DA	20	23.3		
		N	18	20.9		
		A	30	34.9		
		SA	10	11.6		
5	I found HRIS application simple and easy to perform HR transaction	SDA	9	10.5	3.23	1.234
		DA	20	23.3		
		N	9	10.5		
		A	38	44.2		
		SA	10	11.6		
6	HRIS save my time and improved my job performance	SDA	9	10.5	3.22	1.241
		DA	21	24.4		
		N	8	9.3		
		A	38	44.2		
		SA	10	11.6		
Overall Competency					3.18	1.202

Source: own survey

4.2.5. Organizational Efficiency

The organizational efficiency is the dependent variable of this study, which consisted of seven questions. As shown on table 7 the overall result of organizational efficiency mean score and standard deviation were 3.98 and 0.740 respectively. This indicates that the majority of the respondents show their agreement on issues raised under Organizational Efficiency. The result illustrated that 94.2% (81) of the respondents confirmed that HRIS improves the opportunity to participate in the management in ESLSE and similarly 93% (80) of the respondents also agreed that the HRIS has grown the coordination among our department in ESLSE. Moreover the majority of the respondents said the HRIS has raised their labour efficiency and increased the service quality as well.

Table 7 Organizational Efficiency

No	Item	N=86	Frequency	Percent	Mean	Standard deviation
1	HRIS increase the training opportunities for employee in ESLSE	SDA			3.91	0.662
		DA	2	2.3		
		N	17	19.8		
		A	54	62.8		
		SA	13	15.1		
2	HRIS has raised our labour efficiency	SDA	3	3.5	3.83	0.829
		DA				
		N	20	23.3		
		A	49	57.0		
		SA	14	16.3		
3	HRIS has increased service quality level in ESLSE	SDA			3.85	0.775
		DA	3	3.5		
		N	24	27.9		
		A	42	48.8		
		SA	17	19.8		
4	HRIS has grown our employees satisfaction in ESLSE	SDA	2	2.3	3.85	0.861
		DA	1	1.2		
		N	24	27.9		
		A	40	46.5		
		SA	19	22.1		
5	HRIS has increased career development support offered to employees in ESLSE	SDA	1	1.2	4.13	0.732
		DA	3	3.5		
		N	3	3.5		
		A	56	65.1		
		SA	23	26.7		
6	HRIS has grown the coordination among our department in ESLSE	SDA	1	1.2	4.17	0.706
		DA	2	2.3		
		N	3	3.5		
		A	55	64.0		
		SA	25	29.1		
7	HRIS has grown employee's opportunity to participate in the management in ESLSE	SDA			4.14	0.617
		DA	3	3.5		
		N	2	2.3		

		A	61	70.9		
		SA	20	23.3		
OVERALL ORGANIZATIONAL EFFICIENCY					3.98	0.740

Source: own survey

Correlation Analysis

The study is set to determine the relationship of HRIS and organizational efficiency. Pearson correlation was used to associate the independent variables (Information Quality, User Satisfaction, Usefulness, and User Competency) and dependent variable (organizational Efficiency). A correlation coefficient expresses quantitatively the magnitude and direction of the linear relationship between variables, the researcher used Pearson correlation coefficient methods because of the statistical accuracy that usually results from this method. The strength of correlation would interpret through suggestion by Evans (1996) as shown in the following pattern. The value between 0.00 to 0.19 very weak positive correlations, 0.2 to 0.39 weak positive correlations, 0.4 to 0.59 moderate positive correlation, 0.6 to 0.79 strong positive correlations, 0.8 to 1.0, very strong positive correlation. If the values changed in to negative the correlation will be negative correlation.

Table 8 Correlations

		Correlations				
		AVGINQ	AVGUSS	AVGUSE	AVGUSC	AVGOE
AVGINQ	Pearson Correlation	1	.446**	.400**	.310**	.486**
	Sig. (2-tailed)		.000	.000	.004	.000
	N	86	86	86	86	86
AVGUSS	Pearson Correlation	.446**	1	.513**	.830**	.383**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	86	86	86	86	86
AVGUSE	Pearson Correlation	.400**	.513**	1	.524**	.804**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	86	86	86	86	86
AVGUSC	Pearson Correlation	.310**	.830**	.524**	1	.256*
	Sig. (2-tailed)	.004	.000	.000		.017
	N	86	86	86	86	86
AVGOE	Pearson Correlation	.486**	.383**	.804**	.256*	1
	Sig. (2-tailed)	.000	.000	.000	.017	
	N	86	86	86	86	86

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

*. Correlation is significant at the 0.05 level (2-tailed).

From the above table 8, the independent variables/ Information Quality, User Satisfaction, Usefulness, and User Competency/ has significant and positive relationship with the dependent variable/ Organizational Efficiency/.

A relation using person correlation shows that there is a relationship across variables as observed by their significance level, which is less than 0.05 in all cases. The results in the above table indicate that, there is positive and significant relationship between Information Quality and Organizational Efficiency ($r = 0.486$, $p < 0.01$), therefore, r value 0.486 indicates moderate positive association between Information Quality and Organizational Efficiency.

The correlation of User Satisfaction and Organizational Efficiency shows positive and significant relationship since the r value 0.383, $P < 0.01$. Therefore, we can say that User Satisfaction has a weak association with Organizational Efficiency.

The correlation of Usefulness and Organizational Efficiency shows positive and significant relationship since the r value 0.804, $P < 0.01$. Therefore, we can say that Usefulness has a strong positive association with Organizational Efficiency.

The correlation of User Competency and Organizational Efficiency shows positive and significant relationship since the r value 0.256, $P < 0.05$. Therefore, we can say that User Competency has a weak positive association with Organizational Efficiency.

The output shown in the above table 8 provides confidence for the existence of relationship between the selected variables. As can be evidenced from the correlation matrix table (8), there is a positive significant relationship in between the variables and that the correlation coefficients are significant at < 0.05 level.

REGRESSION

In this study multiple regressions was conducted to predict the value of Organizational Efficiency based on the value Information Quality, User Satisfaction, Usefulness, and User Competency.

ASSUMPTIONS OF MULTIPLE REGRESSIONS

LINEARITY

The linearity assumption may be the most obvious assumption. Chatterjee & Hadi, (2012) stated that a model that relates the response Y to the predictors X1, X2, X3... Xn is expected to be linear in the regression parameters. The result of this study showed that there is a linear relationship between the dependent variable, organizational efficiency, and the independent or predictor variables/ Information Quality, User Satisfaction, Usefulness, and User Competency /. That means for every increase in the independent variable Information Quality, User Satisfaction, Usefulness, and User Competency the dependent variable organizational performance will increase.

NORMALITY

According to Matt N, Carlos A, and Deson K, (2013), the assumption of normality shows the distribution of the errors for any given combination of values on the predictor variables (independent variables). In order to make valid inferences from your regression, the residuals of the regression should follow a normal distribution. The result of the study showed that the assumption met with the result.

THERE SHOULD BE MULTICOLLINEARITY IN THE DATA

Multicollinearity refers to when your predictor variables are highly correlated with each other. This assumption is only relevant for a multiple linear regression, which has multiple predictor variables. This assumption can be tested in two ways: correlation coefficients and variance inflation factor (VIF) values. As indicated in correlation table 8 there is strong correlation between independent variables. This confirmed that there is presence of multicollinearity

THERE SHOULD BE HOMOSCEDASTICITY AMONG THE DATA

According to Field, (2006) at each level of the predictor variable, the variance of the residual terms should be constant in order to get homoscedasticity. That means the model errors are generally assumed to have an unknown but finite variance that is constant across all levels of the predictor variables. The assumption can be checked by visual examination of the plot of the standardized residuals (the errors) by the regression standardized predicted values. Based on this general assumption the following scatter plot was obtained from the collected data using SPSS to realize homoscedasticity is really exist in this study.

REGRESSION ANALYSIS

Table 9 model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860 ^a	.739	.727	.25252
a. Predictors: (Constant), AVGUSC, AVGINQ, AVGUSE, AVGUSS				

From the above model summary table 9 it can be seen that 74 % of the variance of organizational performance (dependent variable) can be explained by Information Quality, User Satisfaction, Usefulness, and User Competency, the remaining 26% of the variance is explained by other variables that are not included to the model.

Table 10 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.662	4	3.666	57.472	.000 ^b
Residual	5.166	81	.064		
Total	19.828	85			

a. Dependent Variable: AVGOE

b. Predictors: (Constant), AVGUSC, AVGINQ, AVGUSE, AVGUSS

The significance value shows whether the overall regression model is good predictor and the probability of this result is occurred by chance or not. The significance value is 0.00 which is less than 0.05 thus the model is statistically significant in predicting how Information Quality, User Satisfaction, Usefulness, and User Competency affect organizational efficiency.

Table 11 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.779	.238		3.271	.002
AVGINQ	.172	.062	.182	2.761	.007
AVGUSS	.120	.058	.226	2.076	.041

AVGUSE	.705	.059	.838	12.006	.000
AVGUSC	.182	.045	.427	4.051	.000

a. Dependent Variable: AVGOE

The data analysis presented in Table 11 revealed that four of predictors have P-value for their coefficient (beta, β) are significant for INQ ($\beta = 0.172$, $p = 0.007$), USS ($\beta = 0.120$, $p = 0.041$), USE ($\beta = 0.705$, $p = 0.000$) and USC ($\beta = 0.182$, $p = 0.000$). Hence these four independent variables are positively and significantly contributed to the model.

This study was also interpreted the regression model using significance of independent variables considering T-test values at $p < 0.05$ for describing significance of independent variables.

The output can be represented in mathematical equation form as:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + e$$

Where,

Y = the dependent variable organizational efficiency

a = *y axis intercept (the constant beta value)*

b_1, b_2, b_3, b_4 = *beta weight for each independent variables*

x_1, x_2, x_3, x_4 = representing, independent variables/ information quality, user satisfaction, usefulness, and user competency /.

e = the error term (0.05 in our case)

$$Y = 0.779 + 0.172x_1 + 0.120x_2 + 0.705x_3 + 0.182x_4 + 0.05$$

4.3. Findings of In-depth Interview

In-depth interviews were conducted with administration, training and IT section department heads. The questions forwarded as well as answers provided were summarized and presented into the subsequent thematic areas below.

The role of HRIS to the organization's decision-making making

Interview were conducted with ESLSE human resource department head, training and ICT section heads regarding to the role of HRIS to the organization's decision-making. As indicated by the interview result three of the informants were agreed about the constructive impacts of the HRIS to ESLSE organizational effectiveness.

As per their response the goal of the HRIS is to provide all available information needed to users. The intent of the system is to facilitate and increase the efficiency of the ESLSE and as well as on other hand reduce unnecessary procedures and hereby to established convenient working environment.. The interview revealed also that there is an enterprise plan to improve the system by the state of the art hardware which has also consequence to the system efficiency. They believed that HRIS can make a remarkable impact on the HR function as it allows ESLSE to store and retrieve large amounts of information quickly and efficiency. This results in the elimination of work duplication and ensures streamlined processes, thereby minimizing cost.

As a result of the HRIS, the management of the ESLSE got more time on organizational strategic issues while in consequence it reduced the time for routine administrative tasks. Most important, HRIS can assist a company achieves competitive advantage and this leads to overall organizational efficiency. They believed that effectively achieving such goals will ensure employees satisfaction with the HRIS.

The HRIS to the effectiveness of the organization

The ESLSE key informants who were interviewed were agreed that the HRIS has added value to the Enterprise. The HRIS made it possible for the ESLSE's employees to easily access up-to-date and accurate information. They said that, as a result this allows the employee to get the right service and help the management to assign the right professional to the right place as well. Data stored electronically can be easily accessed and it allows transfer as well as storage of data very fast with low cost. These are a great advantage as the interviewed informants underlined.

They argued that still there was a gap that should be managed by management and employees of ESLSE concerning to confidence on HRIS. They said that more work

is needed on proper use. In addition, it is expected to provide additional training for the employee to operate the system independently, as well as to enhance the services of the ICT support staff, they said.

Regarding to the user involvement and working independently in HRIS

One of the goals of the HRIS is to overtake the paper work and to share information on line, as stated by the same informant. The employees and management of the ESLSE are always working to improve the application of the HRIS. However, there is still a lag in relying on the system and getting rid of paper work. They said that still some of the user had panic in use of computerized technology. They want to work with the usual hard copy and traditional ways of communication.

As it is indicated the problems encountered in the system were not only software but also shortage of hardware such as computer and related materials such as printers and other network devices. They also mentioned that there are HRIS users who lack adequate knowledge of the system, so they need more training. The ESLSE's management is committed to working with the HRIS and a policy that supports this; more needs to be done by providing guidelines and directions. HRIS is an efficient and responsive system for managing the human resources. And the ESLSE should meet by allocating enough computers to all employees.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of the Findings

The objectives of this study were to investigate the effect of HRIS on organizational efficiency in ESLSE. To realize this goal quantitative and qualitative approaches were used. Moreover, the researcher generated different descriptive and inferential statistics based on the collected data.

The Specific Objectives of the research were

- To investigate the HRIS information quality influence on organizational efficiency in ESLSE.
- To examine the effects of user satisfaction of HRIS on organizational efficiency in ESLSE.
- To identify the effects of usefulness of HRIS on organizational efficiency in ESLSE.
- To examine the effects of user competency of HRIS on organizational efficiency in ESLSE.

Finding based on each objective/ investigate the HRIS information quality influence on organizational efficiency in ESLSE/.

- 74.4%(64) of the respondents showed their agreement on getting accurate information from HRIS
- The majority of the respondents 84.9% (73) believe that the information is very accessible using HRIS. So this indicates that the users can access information easily for their task.
- The overall mean and standard deviation of information quality is 3.81 and 0.840 respectively. This indicates that the respondents believe that the HRIS deliver quality information for the users.
- There is positive and significant relationship between Information Quality and Organizational Efficiency ($r = 0.486$, $p < 0.01$), therefore, r value 0.486 indicates

moderate association between Information Quality and Organizational Efficiency. Moreover for every increase in Information Quality, the dependent variable organizational efficiency will increase.

- The interview conducted with senior managements confirmed that the management staffs have a great desire to modernize the work of the organization and that they are working hard for this. They explained that they are working to use the system that is currently being implemented so that the employee can get accurate, relevant updated and quick information as a resource to do the work of the organization.

The findings of research objective 2, examine the effects of user satisfaction of HRIS on organizational efficiency in ESLSE? Are as follows:

- The overall mean score and the standard deviation of user satisfaction 3.39 and 1.026 respectively. This result indicated that even if the aggregate mean result is greater than neutral position (3.39), but it needs improvement for some extent.
- Regarding the expectation about the HRIS 65(75.7%) of the respondents were either neutral or disagreement position this result indicated that for some extent as there is a gap between user expectation and the HRIS.
- The mean value for the questions ‘Users has understanding about HRIS’ and ‘HRIS is seen as a valuable resource by the users’ is 3.34 and 3.37 respectively. The results of the responses do not show a complete level of agreement so that more work needs to be done in order to improve the satisfaction level of employees about the system.
- There is positive and significant relationship between user satisfaction and Organizational Efficiency ($r = 0.383$, $p < 0.01$), therefore, r value 0.383 indicates weak association between user satisfaction and Organizational Efficiency. This indicates that for every increase in user satisfaction, the dependent variable organizational efficiency will increase.
- Similarly, the finding of the interview of senior management of ESLSE revealed that some users of the system have a gap in understanding and confidence in the

system as a whole, and that they want to work with hard copy instead of soft copy.

The findings of research question number 3 identify the effects of usefulness of HRIS on organizational efficiency in ESLSE.

- The overall mean score and the standard deviation of user satisfaction are 3.86 and 0.779 respectively. The outcomes expressed that the respondents show their agreement about the usefulness of the system.
- More than 80% of the respondents believe that HRIS gives fast service transaction and enables worker's requirement more quickly.
- There is positive and significant relationship between usefulness and Organizational Efficiency ($r = 0.804$, $p < 0.01$), therefore, r value 0.804 indicates strong association between usefulness and Organizational Efficiency. This indicates that for every increase in usefulness, the dependent variable organizational efficiency will increase.
- Accordingly previous study done by Udomphol and Siengthai (2016) that evaluated the Impact of Human Resource Information System (HRIS) on Organizational Effectiveness in Textile Industry in Thailand had similar results that the usefulness of HRIS had a significant effect to the organizational performance.

The findings of research question number 4 to examine the effects of user competency of HRIS on organizational efficiency in ESLSE.

- The overall mean score and the standard deviation of user competency are 3.18 and 1.202 respectively. The outcomes expressed that the respondents showed their agreement around the neutral position, so it needs some adjustment for improvement.
- 50% of the respondents replied as they can't easily operate the HRIS without support and 54.7% the respondents expressed they can't fix any failure without support. This result indicated that as there is a skill gap for using HRIS efficiently.
- There is positive and significant relationship between usefulness and Organizational Efficiency ($r = 0.256$, $p < 0.05$), therefore, r value 0.256 indicates

weak association between user competency and Organizational Efficiency. This indicates that for every increase in user competency, the dependent variable organizational efficiency will increase

- The prediction level of each independent variable is different, but the cumulative of these independent variables (Information Quality, User Satisfaction, Usefulness, and User Competency), significantly predict the organizational efficiency.
- From the model summary table the predictor variables / Information Quality, User Satisfaction, Usefulness, and User Competency/ is ($R^2=0.739$), the variance in the organizational efficiency. This means that 74% of the variation in the organizational efficiency is accounted for by these independent variables.
- From the beta coefficient outcome the predictor have P-value for their coefficient (beta, β). Information Quality ($\beta = 0.172$, $p = 0.007$), User Satisfaction ($\beta = 0.120$, $p = 0.041$), Usefulness ($\beta = 0.705$, $p = 0.000$), User Competency ($\beta = 0.182$, $p = 0.000$) Hence the independent variables positively and significantly contributed to the model.
- The study found out that human resource information systems have been adopted at Ethiopian Shipping and Logistics Service Enterprise, Ethiopia was found to be effective with the generation of information in benefiting employees and improving their performance. This goes line with Ebenezer and Evans (2012) and Udomphol and Siengthai (2016) who stated that Human Resource Information System allows the HR function to become more efficient and to provide better information for organizational efficiency.

5.2. Conclusions

- The HRIS is supporting the organizational task by providing accurate, relevant, complete, and updated information for the users.
- Regarding the importance of the system, most of the employees believe that HRIS is important for their work and also contribute to the organization's work. This can be a good starting point for correcting gaps that appear at other points.

- From the point of view of employee satisfaction, although the result showed that there is a certain level of agreement on user expectation on HRIS and participation of the employee, it is seen that it is not done at an appropriate level and there are gaps, so it is necessary to do more work to bring the satisfaction of the employee to the appropriate level.
- The study has confirmed that the system has advantages in many ways, but there are shortcomings in terms of the ability of the employee to operate independently and to solve the problems encountered independently. There is a need to correct the gap by doing more work around this.
- The HRI system has a significant role in increasing the efficiency of the organization. Thus it has a good contribution in improving the efficiency of employees, helps to improve employee satisfaction, increasing service quality, creating connections between departments, and so on.

5.3. Recommendations

Although there are no significant problems regarding the Information quality and usefulness of the HRIS, the gaps are seen in terms of satisfaction and competency for some extent.

In terms of satisfaction

The study finding expressed that the HRIS can't meet the users expectation as appropriate level moreover they didn't understanding the system well enough and, not using the system as a main and important resource as required level due to lack of awareness of the system. So that this problem should be solve by structural or organized training.

- Before the employee can use the system, it is necessary to provide appropriate training that can clearly explain what the system can do, what results can be expected from the system, what problems it can solve, and how it can benefit them in all ways. Hence the Ethiopian Shipping and Logistics Service Enterprise should provide training and continuous education in line with HRIS to improve the knowledge of users.

In terms of competency

From the point of view of competency, the result showed that the users are not able to operate and solve the problems on their own as appropriate level.

It is impossible to achieve the proper objectives of the HRI system if the employee is left with gaps in terms of user's competency. Therefore, it is a vital task to prepare training and create awareness at appropriate level. Apart from this, it is important to identify problems and how they can be solved at the user level. If the users can't get training and awareness as such level, it will make the users uncomfortable and cause them to lose trust and even lead to unwillingness to use it, so it should be worked on carefully.

In general, for the HRI system to achieve its intended purpose, awareness creation and training is of great importance, so the management of the organization should work on it. Moreover ICT infrastructure in ESLSE needs improvement for reliable broadband interconnectivity and LAN implementation. ESLSE needs to enhance integrated HRIS flows in line with the organization mission and objectives.

5.4. Suggestion for Future Research

The study showed a clear connection between HRIS and organizational efficiency. However, still, other variables might have an effect on organizational efficiency. So other researchers have a chance in order to conduct a study in this field in the future.

REFERENCES

- Al-Tarawneh, M., and Tarawneh, H., 2011, *The Effect of Applying Human Resources Information System in Corporate Performance in the Banking Sector in Jordanian Firms*, Computer Information System, Karak University College, Albalqa Applied University, Salt, Jordan.
- Armstrong, M., 2010, *Armstrong's essential human resource management practice-A guide people management*, US kogan page limited.
- Asafo-Adjei & Agyenim Boateng, 2007, *The Role of HRIS In Strategic Human Resource Management*, Master of Science Thesis, HANKEN-Swedish School of Economics and Business Administration.
- Asrat, A., 2016, *Assessment of Human Resource Management Practices Towards Organizational Performance: The Case of Addis Ababa University*, MA Thesis, Business and Economics of Addis Ababa University. Addis Ababa, Ethiopia.
- Averbook, J., 2012, *Integrating Performance Management and HRIS*, Journal of Management Information Systems.7 (8), 25 – 38.
- Batool, S., Sajid, M. A., & Raza H. S., 2015, *Barriers to the Implementation of Human Resource Information Systems*, International Journal of Humanities and Social Science 2 (3).
- Ceciliah, W. N. and Samson, P. N., 2021. *Effect of Human Resource Information Systems on Efficiency of Information Management on Employees' Performance at Murang'a Water and Sanitation Companies, Kenya*, International Journal of Social Sciences and Information Technology, ISSN 2412-0294, Vol. VII Issue II, February 2021
- Chauhan, A., Sharma, S. K, & Tyagi, T., 2011, *Role of HRIS in Improving modern HR Operations*, Review of Management, 1(2), 58-70.
- De Lone, W. H., & McLean, R. E., 2003, *The De Lone & McLean Model of Information Systems Success: A Ten Year Up – date*, Journal of Management Information Systems.19 (4), 9 – 30.
- Dottorato, T., & Benfatto, C. M., 2010, *HRIS and the Performance of HR Function*, Rome, Prentice-Hall.

- Ebenezer, A., and Evans, S., 2012, *Human Resource Information System as A Strategic Tool in Human Resource Management, problems of Management in the 21st century*, Volume 5, 2012, ISSN 2029-6932
- ElNakib, D. M., Ragheb, M. A., Youssef, R. A. E., & Ghannem, A. N., 2021, *The Effect of HRIS Adoption on Vodafone Egypt Firm's Performance*, Journal of Human Resource and Sustainability Studies, 9, 173-192. <https://doi.org/10.4236/jhrss.2021.92012>.
- İlhami, K., Tahir, A., and Abdullah, Y., 2016, *The Impact of HRIS Usage on Organizational Efficiency and Employee Performance: A Research In Industrial and Banking Sector In Ankara and Istanbul Cities*, International Journal of Business and Management Vol. IV, No. 4 / 2016, DOI: 10.20472/BM.2016.4.4.002
- Janet, M., 2015, *Influence of Human Resource Information Systems on the Performance of in Kenyan Public Universities*, Doctor of Philosophy (Human Resource Management), Jomo Kenyatta University of Agriculture and Technology.
- Landrum, H., Prybutok V., Zhang X., & Peak D., 2009, *Measuring IS System Service Quality with SERVQUAL: Users' Perceptions of Relative importance of the Five SERVPERF Dimensions*, The International Journal of an Emerging Trans discipline 3(12), 4 - 9.
- Nikhil, A., Kumar and Sanjana, B. P., 2013, *The Impact Of Hris On Organizational Efficiency: Random Or Integrated And Holistic?*, Corporate Ownership & Control / Volume 11, Issue 1, 2013, Continued – 6 .
- Nthiga, C. W., and Nyang'au, S. P., 2021, *Effect of human resource information systems on efficiency of information management on employees' performance at Murang'a water*, International Journal of Social Sciences and Information Technology.
- Ntoetia, K., 2012, *Role of HRIS in Performance Evaluation and Decision Making*, International Journal of Multidisciplinary Research 15 (7), 222 – 240.
- Obeidat, Y.B, 2012, *The Relationship between Human Resource Information Systems functions and Human Resource Management Functionality*, Journal of Management Research 4 (4).
- Saleem, I, 2012, *Impact of adopting HRIS on three tries of HRM Evidence from Developing Economy*. Business Review 7(2), 96-105.

- Shani, A. & Tesone, V. D., 2010, *Have human resource information systems evolved into internal ecommerce?* Emerald Group Publishing Limited, 2 (1), 30-48.
- Shani, A. & Tesone, V. D., 2010, *Have human resource information systems evolved into internal ecommerce?* Emerald Group Publishing Limited, 2 (1), 30-48.
- Shibly, H., 2011, *Human resources information systems success assessment: An integrative model*, Australian Journal of Basic and Applied Sciences, 5(5), 157–169.
- Shibly, H., 2011, *Human resources information systems success assessment: An integrative model*, Australian Journal of Basic and Applied Sciences, 5(5), 157–169.
- Shiri, S., 2012, *Effectiveness of HRIS on HR Functions of the Organization*, US – China Education Review. 4 (9), 830-839.
- Siengthai, S. & Udomphol, A., 2016, *The Impact of Human Resource Information System (HRIS) on Organizational Effectiveness: A Case Study of the Textile Industry in Thailand*, International Journal of Asian Business and Information Management. 7. 40-53.
- Şimşek, Ş. and Çelik, S., 2015, *İşletme Bilimine Giriş*, Eğitim Yayınevi, Konya.
- Troshani, I., Jerram, & Hill, R. S., 2011, *Exploring the public sector adoption of HRIS*, Industrial Management & Data Systems, 3(3), 470 – 488.
- Wiblen, S., Grant, D. & Dery, K., 2010, *Transitioning to a new HRIS: The reshaping of human resources and information technology trust*, Journal of Electronic Commerce Research, 11 (4), 251-267.

Annex



Questionnaire No _____

INFORMATION SHEET

Title of the Research: - Effects of Human Resource Information System (HRIS) on Organizational Efficiency: Ethiopian Shipping and Logistics Services Enterprise.

Name of Investigator: - Ayahlush Mamo

Dear Respondents

The aim of this survey question is to gather data to examine the effects of human resource information system on organizational efficiency at Ethiopian Shipping and Logistics Services Enterprise in Addis Ababa. As a result it will help to make some recommendations that may guide decision makers. Therefore, I kindly request you to fill this questionnaire genuinely assuring that the data will be used solely for the intended purpose and is subject to ethical rules of research at Addis Ababa University.

- Please follow the instructions and answer all questions.
- Your answers will be treated strictly confidential.
- You need not to reveal your identity.
- Please call or email the researcher at any time for any inquiry or explanation you need.

Best Regards,

Contact Person

Ayahlush Mamo Abebe

Email: ayahlushmamo@yahoo.com

Telephone: - 0911 63 16 13

Thank you for your willingness to participate in this study

Questionnaire Distributed to HRIS User

Instruction: - In this section please circle the numbers in front of the choices that represent your appropriate answer out of the list else write on specify parts.

Section I. Demographic characteristics	
1.	What is your age? (in year): 1. < 30 2. 31-40 3. 41- 50 4. 51-60 5. >60
2.	What is your gender? 1. Male 2. Female
3.	Marital Status 1. Single 2. Married 3. Divorced 4. Widowed
4	What is your job position? 1. Office Assistance 2. Senior Officer 3. Director/Manager 4. Executive 5. Others please specify _____
5	What is your qualification 1. High school 2. Diploma/Level 3. Degree 4. MSC/MA 5. PHD 6. Other please specify _____
6	How many years have you been working in ESLSE? 1. 1- 5 years 2. 6-10 years 3. 11-15 Years 4. 16-20 Years 5. Above 20 6. Other please specify _____

Section 2: HRIS and Organizational Efficiency Dimensions						
Please indicate the extent of your agreement/disagreement with each of the statement below according to the scale provided. Please Circle the number that represents how you feel about HRIS.						Strong ly
						Disagr ee
						Neutr al
						Agree
						Strong ly
No	Measurement Items	1	2	3	4	5
Information Quality						
INQ 1	I get accurate information when I use HRIS.	1	2	3	4	5
INQ 2	I get relevant information when I use HRIS.	1	2	3	4	5
INQ 3	I get complete information when I use HRIS.	1	2	3	4	5
INQ 4	I get up-to-date information when I use HRIS	1	2	3	4	5
INQ 5	HRIS returns answers to requests quickly.	1	2	3	4	5
INQ 6	HRIS makes information very accessible.	1	2	3	4	5
INQ 7	I get form HRIS the information I need.	1	2	3	4	5
User Satisfaction						
USS 1	The HRIS meets the HR requirements of your area of responsibility.	1	2	3	4	5
USS 2	The HRIS has met your expectations.	1	2	3	4	5
USS 3	Users have understanding about HRIS.	1	2	3	4	5

USS 4	HRIS is seen as a valuable resource by the users.	1	2	3	4	5
USS 5	There is user participation in HRIS development activities.	1	2	3	4	5
USS 6	HRIS system is relevant for me.	1	2	3	4	5
Usefulness						
USE 1	I get much benefit from HRIS system.	1	2	3	4	5
USE 2	HRIS is helpful for my personal and business needs.	1	2	3	4	5
USE 3	HRIS is convenient for met HR needs.	1	2	3	4	5
USE 4	HRIS is helpful to address the problems related to HR functions.	1	2	3	4	5
USE 5	I get fast HRIS service transactions using our enterprise system.	1	2	3	4	5
USE 6	Using HRIS enables to perform work's requirements quickly.	1	2	3	4	5
USE 7	Using HRIS improves my job performance and enhances my effectiveness in the job.	1	2	3	4	5
User Competency						
USC 1	I can easily operate the HRIS system without support.	1	2	3	4	5
USC 2	I can fix any HRIS failures without support.	1	2	3	4	5
USC 3	I am quite certain what to expect from HRIS system.	1	2	3	4	5
USC 4	I can easily understand HRIS functions.	1	2	3	4	5
USC 5	I found HRIS application simple and ease to perform HR transaction.	1	2	3	4	5
USC 6	HRIS save my time and improve my job performance.	1	2	3	4	5
Organizational Efficiency						
OE1	HRIS increased the training opportunities for the employees in ESLSE.	1	2	3	4	5
OE2	HRIS has raised our labor efficiency.	1	2	3	4	5
OE3	HRIS has increased service quality level in ESLSE	1	2	3	4	5
OE4	HRIS has grown our employees' satisfaction in ESLSE	1	2	3	4	5
OE5	HRIS has increased career development support offered to the employees in ESLSE.	1	2	3	4	5
OE6	HRIS has grown the coordination among our departments in ESLSE.	1	2	3	4	5
OE7	HRIS has grown employees' opportunity to participate in the management in ESLSE.	1	2	3	4	5

**This is the end of this questionnaire.
Thank you very much for completing this questionnaire!**

Interview for Decision Maker at ESLSE Level

I am student of Addis Ababa University and conducting a research on HRIS and organizational performance.

Can I proceed?

Thank you!

1. Does Application of HRIS generate appropriate data useful in decision making?

2. In your opinion what are the qualities (Information and HRM System) of Application of HRIS for effective organizational performance?

3. Does HRIS offer quality assurance of data provided by HR staff?

4. Do you involve and operate independently in relation to HRIS in your organization?

5. What does the overall organizational business performance particularly the organizational efficiency of your company?

6. Is there anything else you would like to add?

Thank you!

PRE-TEST

Pre-test of questionnaire

- The questionnaire is pre-tested and improved, vague and redundant questions are corrected based on feedback gained.
- The questionnaire is further developed and enriched by reviewing additional literature and with peer discussions.

Reliability Statistics

The alpha coefficient for the 12 items is .849, suggesting that the items have relatively high internal consistency. (reliability coefficient of .70 or higher is considered" acceptable" in most social science research situations.)

[DataSet1] F:\effect\HRIS of ESLSE.sav

Scale: ALL VARIABLES

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.911	32

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.107	3.500	4.417	.917	1.262	.038	32
Item Variances	.439	.265	1.182	.917	4.457	.058	32
Inter-Item Correlations	.243	-.714	1.000	1.714	-1.400	.258	32

Item Statistics			
	Mean	Std. Deviation	N
I get accurate information when I use HRIS.	4.00	.853	12
I get relevant information when I use HRIS	3.83	.835	12
I get complete information when I use HRIS.	3.50	1.087	12
I get up-to-date information when I use HRIS	4.25	.754	12
HRIS makes information very accessible.	3.92	.900	12
I get form HRIS the information I need in time.	4.42	.515	12
The HRIS meets the HR requirements of your area of responsibility.	4.42	.669	12
The HRIS has met my expectations.	4.08	.793	12
I have understanding about HRIS.	3.83	.835	12
HRIS is seen as a valuable resource by the users.	3.75	.965	12
HRIS has met my HR expectation and need.	4.25	.866	12
I found the HRIS system relevant for me.	4.42	.515	12
HRIS is helpful for my personal and business needs.	4.33	.651	12
HRIS is convenient for met HR needs.	4.08	.515	12
HRIS is helpful to address the problems related to HR functions.	4.08	.515	12
I get fast HRIS service transactions using our company system	4.08	.515	12
Using HRIS enables to perform work's requirements more quickly.	4.08	.515	12
Using HRIS improved my job performance and enhanced my effectiveness.	4.08	.515	12
I can easily operate the HRIS system without any support.	4.08	.515	12
I can fix HRIS failures without support.	4.08	.515	12
I am quite certain what to expect from HRIS system.	4.08	.515	12
HRIS application has simple and ease instructions to perform HR transaction.	4.08	.515	12
HRIS save my time as my company brings self-service system.	4.08	.515	12
HRIS increase the training opportunity for the employees	4.08	.515	12
HRIS rise our labor efficiency	4.17	.577	12
HRIS improve employees' opportunity to participate in the management	4.25	.622	12
HRIS increase the quality of service provided for employees.	4.25	.622	12
HRIS raise our organization's new service development	4.17	.577	12
HRIS increase career development support offered to the employees	4.17	.577	12
HRIS enhanced the solution rates of the customer complaints received	4.08	.515	12
HRIS improve the coordination among our departments	4.08	.515	12
HRIS rise our employees' satisfaction with our organization	4.33	.651	12